



2023 Sustainability Report



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About the Report



This is the second sustainability report issued by TP-Link to illustrate TP-Link's sustainability concepts, strategies, and management systems to stakeholders and to demonstrate TP-Link's performance highlights in economic, environmental, and social sustainability.

Reporting Scope

The Report covers TP-Link Systems Inc., its subsidiaries and related entities over which TP-Link Systems Inc. has operational control (collectively, "TP-Link," "Company," and "we"). The business names of the related entities are listed below.

Full name	Short name
TP-Link Systems Inc.	TPS, Headquarters, R&D Center
TP-Link Corporation PTE. LTD	TPC
Lianzhou International Co., Ltd.	Shenzhen R&D Center
Lianzhou International Co., Ltd. Guangming Branch	Shenzhen Manufacturing Center
Dongguan Lianzhou Technologies Co., Ltd.	Dongguan Manufacturing Center
LIANYUE (VIETNAM) COMPANY LIMITED	Vietnam Manufacturing Center
42 R&D and sales companies worldwide	R&D and sales companies

Reporting Period

The reporting period is from January 1, 2023 to December 31, 2023. To more accurately reflect the current situation of the Company, the statistics of some information are as of June 30, 2024.

Basis for Preparation

The Report is prepared based on the *Sustainability Accounting Standards Board (SASB) Standards* (SASB Standards), with reference to the *GRI Sustainability Reporting Standards (2021)* (GRI Standards) issued by the Global Sustainability Standards Board (GSSB), the *International Financial Reporting Standard on Sustainability Disclosure 1: IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information* (June 2023) and the *International Financial Reporting Standard on Sustainability Disclosure 2: IFRS S2 Climate-related Disclosures* (June 2023) issued by the International Sustainability Standards Board (ISSB), and United Nations' Sustainable Development Goals (SDGs).

Data Description

The text, cases and data disclosed in the Report are from the original records of the Company's actual operation. Financial data in the Report are presented in United States dollars, unless otherwise stated.

For the measurement of quantitative information in the Report, the data standard, calculation basis and assumptions have been specified. The statistics and disclosure of the same indicator in different reporting periods have been kept consistent. In case of changes in the statistics and disclosure of the same indicator, they will be fully explained in the notes to the Report to ensure that the disclosure of the data will not mislead the stakeholders.

Access to the Report

The Report is published electronically on the Company's official website (<https://www.tp-link.com/en/>).

Contact Information

If you have any suggestions on the Report, please contact us:
Address: 10 Mauchly, Irvine, CA 92618, USA
Email: sustainability@tp-link.com

Principles of Preparation

▶ Accuracy

It can be ensured that the information in the Report is as accurate as possible. For the measurement of quantitative information, the data standard, calculation basis, and assumptions have been explained to guarantee that the calculation error range will not mislead the users. Quantitative information and notes are detailed in the Report. Board of Directors warrants that there are no false records, misleading statements or material omissions in the Report.

▶ Balance

The Report reflects objective facts and impartially discloses positive and negative information related to the Company.

▶ Clarity

The Report is issued in English. The Report contains tables, diagrammatic figures, etc. as a supplement to facilitate a better understanding by stakeholders. To facilitate faster access to information for stakeholders, the Report provides a table of contents and a benchmarking index of ESG standards.

▶ Comparability

The Report discloses key quantitative performance indicators and, where possible, historical data. The statistics and disclosure of the same indicator in the Report are consistent from one reporting period to another. All changes (if any) are fully explained in the notes to the Report for stakeholders to conduct meaningful analyses and assess the trend of the Company's ESG performance level.

▶ Completeness

Unless otherwise specified, the information disclosed in the Report covers TP-Link Systems Inc., subsidiaries and related entities over which TP-Link has operational control.

▶ Sustainability context

The Company identified the material topics related to the operation that all stakeholders are concerned about as the highlights of the Report. The presentation of material topics in the Report focuses on the industry characteristics involved in the Company's operations and the characteristics of the region where TP-Link is located. The process of analyzing material topics and the results are detailed in the section "Material Topic Identification and Analysis" of the Report. The Report highlights ESG matters that may have an important impact on stakeholders.

▶ Timeliness

This is an annual report covering the period from January 1, 2023 to December 31, 2023. The Company endeavors to publish the Report as soon as possible after the end of the reporting year to provide stakeholders with timely information for decision-making.

▶ Verifiability

The cases and data in the Report come from the original records of the Company's actual operations. The Company has entrusted TÜV Rheinland (Shanghai) Co., Ltd. (TÜV Rheinland) to review the substantiality of the Report and data to ensure that the information and data contained in the Report are accurate, reliable and fairly presented.

Message From the Director

Since inception of the brand in 1996, TP-Link has become a leader among global network equipment providers, offering high-quality, reliable, and high-performance network equipment for an abundance of homes and businesses. TP-Link always cherishes the information security and eco-friendly sustainability concepts when making business decisions. TP-Link strives for providing a simple, reliable, and stably connected lifestyle for hundreds of millions of consumers in more than 170 countries and regions.

Driven by global sustainability trend, TP-Link actively incorporates strategies related to environmental protection, climate change combating, social responsibility and other sustainability into the daily product R&D and corporate operation. In recent years, TP-Link has joined the United Nations Global Compact (UNGC), the Responsible Business Alliance (RBA), the Responsible Minerals Initiative (RMI), the Science Based Targets initiative (SBTi) and others, and has gradually improved the Company's ESG management system in accordance with international standards, such as ISO 14001, ISO 45001, and ISO 14064.

As a pioneer in wireless interconnection technology, TP-Link values data security as the very essence of the Company and attaches great importance to the information security and privacy protection of stakeholders. In addition to compliance with the laws and regulations related to data protection in the locations where TP-Link operates, the Company followed the requirements of two international standards, ISO 27001 and ISO 27701, to establish an information security management system and a privacy security management system in 2023, and

garnered the corresponding certificates. TP-Link implements the requirements of information security in daily product development and corporate operation. The Company makes great efforts to protect the confidentiality and integrity of stakeholders' information, and gradually win public's trust and support for the TP-Link brand.

The community is a mutually reinforcing and indivisible whole instead of a collection of countless separate entities. TP-Link recognizes social responsibility as the cornerstone of TP-Link's brand value and influence and a must for fulfilling our mission "using technology to make life better and enabling more people to enjoy the wonders of technology." TP-Link actively undertakes social responsibility and carries out a number of social welfare and charity programs. TP-Link partners with public welfare and charity organizations and hospitals to help the disadvantaged groups in need and facilitate patients' visits and strive to continue efforts like this in the years to come.

As our lives grow ever more connected, TP-Link will continue to pursue excellence and explore possibilities in 2024. We uphold the sustainability management concept of "As our lives grow ever more connected, TP-Link will continue to pursue excellence and explore the possibilities of tomorrow. This pursuit of excellence includes an emphasis on environmental, social, and governance measures to enhance the digital life of the communities we serve and deliver a positive impact on the planet." We endeavor to incorporate sustainability management into all aspects of corporate operations.

About TP-Link

Company Profile

TP-Link is recognized as a world-known multinational group specialized in consumer network, consumer electronics, enterprise network and security, operator network, software and cloud services. TP-Link has always adhered to independent R&D, independent manufacturing, and independent marketing to continually provide high-quality, highly reliable, and high-performance product experiences for more than 2 billion users around the world.

TP-Link always prioritizes technical reliability and product stability. As an enterprise drive, "Reliable" is greatly highlighted in every link of enterprise development. As a result, the TP-Link brand has gained recognition and trust from all over the world, and has achieved the largest shipment of Wi-Fi equipment in the world for consecutive years. The Company has won numerous awards such as "The Most Satisfactory Brand for Users" and "The Best Product Performance Award," with the cumulative number of awards exceeding 1,500.



Company name
TP-Link Systems Inc.



Headquarters
10 Mauchly, Irvine, CA 92618, USA



Scope of business

The Company provides a wide range of commercial and household products including Ethernet, Wireless Local Area Network, broadband access, park network, surveillance cameras, smart home, home robotics and other equipment. We deliver a one-stop solution based on the product system.



Values

Pursuing Excellence and Exploring Possibilities



Mission

To use technology to make life better and enable more people to enjoy the wonders of technology

Industrial Layout

As a global multinational company, TP-Link boasts 4 R&D centers, a global manufacturing and supply system covering China, Vietnam, Brazil, and 42 subsidiaries. We sell products in over 190,000 retail stores and 700 e-commerce platforms. With brand businesses in over 170 countries and regions around the world, TP-Link has maintained positive sales growth for 25 consecutive years.

Global Network

TP-Link has always pursued independent R&D, manufacturing, and marketing, having established four R&D centers worldwide. The company has built a global manufacturing and supply chain network in China, Vietnam, and Brazil. TP-Link's products are available in over 170 countries, supported by 42 subsidiaries and 23 call centers, ensuring high-quality products and services globally.



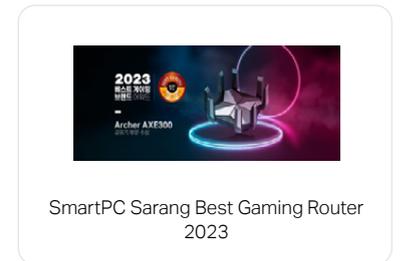
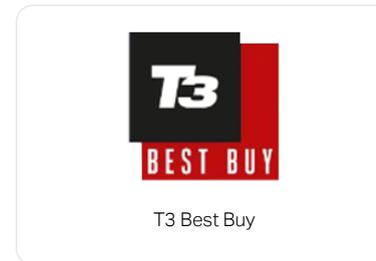
*includes the manufacturing base in Brazil, which is under construction

Participation in Initiatives

The Company leverages technology to connect all things, and expects to better life with advanced technology and high-quality products. We have joined organizations such as the Wi-Fi Alliance to keep abreast of the world's cutting-edge technologies while sharing our technological explorations, creations, and achievements with customers and peers with the same aspiration. TP-Link has joined the United Nations Global Compact (UNGC), the Responsible Business Alliance (RBA), the Responsible Minerals Initiative (RMI), and the Science Based Targets initiative (SBTi) to further strengthen the Company's commitment and actions in sustainability.



Awards



TP-Link Certificates¹

	Shenzhen R&D Center	TPC	Shenzhen Manufacturing Center	Vietnam Manufacturing Center	Dongguan Manufacturing Center
ISO 9001:2015	 (2025.11.30)	-	 (2025.11.30)	 (2027.05.10)	 (2025.11.30)
ISO 14001:2015	 (2025.02.05)	-	 (2025.02.05)	 (2027.05.10)	 in process
ISO 45001:2018	 (2026.03.29)	-	 (2026.03.29)	 (2027.05.10)	 in process
ISO 27001:2022	 (2026.07.10)	 (2026.07.10)	 (2026.07.10)	 in process	 in process
ISO 27701:2019	-	 (2026.07.10)	-	-	-
ISO 14064-1:2018		-			
ISO 50001:2018	 in process	-	 in process	 in process	 in process
ISO 22301:2019	 in process	 in process	 in process	 in process	 in process
RBA VAP Review Silver Medal	-	-	 (2026.03.22)	 (2026.08.30)	 in process

Note 1: The certificates for TPS are in process.

01

Sustainability Management

Material Topics

- ▶ Sustainability Concepts and Strategies
- ▶ Sustainability Governance Framework
- ▶ Stakeholder Communication
- ▶ Material Topic Identification and Analysis



Sustainability Concepts and Strategies

TP-Link, with deep understanding of the core value of sustainability, is committed to building and continuously optimizing TP-Link's sustainability system. We uphold the sustainability concept of "As our lives grow ever more connected, TP-Link will continue to pursue excellence and explore the possibilities of tomorrow. This pursuit of excellence includes an emphasis on environmental, social, and governance measures to enhance the digital life of the communities we serve and deliver a positive impact on the planet." We aim to contribute to a greener and more sustainable future.

In 2023, the Company summarized the sustainability strategy layout, integrated the sustainability concept into the Company's strategy and operation, and created sustainable shared value together with all stakeholders.

TP-Link Sustainability Strategy Layout

Concept	Persisting in technology and product innovation, helping customers' digital development, letting consumers enjoy the latest technology's brilliance, and enabling more consumers to enjoy a technology-driven lifestyle; while also responding to the United Nations' global sustainable development goals, promoting the continuous upgrading of industries towards a greener and low-carbon direction, and actively assuming social responsibility.			
Strategy	Environmentally friendly	Innovation for empowerment	Care for employees	Maintaining sustainable growth
Focused topic	<ul style="list-style-type: none"> Combating climate change Green products Energy management Resource utilization and circular economy Pollutant Control 	<ul style="list-style-type: none"> Information security and privacy protection R&D innovation and intellectual property protection Quality of products and services Sustainable procurement 	<ul style="list-style-type: none"> Occupational health and safety Training and career development Employees' rights, benefits, and welfare Employment compliance, equality and inclusion Community relations and philanthropy 	<ul style="list-style-type: none"> Operational compliance and risk management Sustainability governance Business ethics
Further actions	<ul style="list-style-type: none"> In accordance with the IFRS S2 Recommended Framework, identifies climate-related risks and opportunities. Submitted short-term and net-zero goal commitment to the Science Based Targets Initiative (SBTi). Adopts the management concept of product life cycle assessment (LCA), conducts green design and R&D for products. 	<ul style="list-style-type: none"> Establish and implement S-SDLC processes, embedding security and privacy protection into the software development process. Implement comprehensive quality management, establishing mechanisms for product quality evaluation and improvement. Develop conflict minerals management procedures and conduct due diligence. 	<ul style="list-style-type: none"> Establish a comprehensive occupational health and safety management structure to ensure the health and safety of employees. Implement the dual-channel career development mechanism of "specialized + management". Develop a robust employee recruitment, compensation, and benefits system. 	<ul style="list-style-type: none"> Builds three lines of defense for risks, namely "control by business departments, audit by functional departments, and supervision by risk control special teams". Establishes standardized risk identification and response procedures.
Alignment with SDGs	 	 	    	

Sustainability Governance Framework

TP-Link has deeply integrated the sustainability concept into the development strategy and daily operation. The Company has created a top-down sustainability management system led by the senior management with the participation of all staff, supplemented by a set of mature and perfect working mechanism. The Company aims to ensure efficient and orderly implementation and progress of all sustainability initiatives, and to continue to promote the harmonious coexistence between the Company and the environment.



➤ **Board of Directors**

Be fully responsible for the identification of business risks, the formulation of strategies, and the implementation of strategies and business plans.

➤ **Sustainability Management Committee**

With CEO as chairman, formulate the Company's sustainability strategy and policy goals, guide the Company's sustainability implementation, be responsible for making decisions on key matters and major topics of the Company's sustainability, and report the Company's sustainability situation and progress to the top leadership.

➤ **Sustainability Execution Team**

Implement the Company's sustainability-related decisions, decompose and implement sustainability goals, formulate implementation plans, and supervise and evaluate the results of plan, and report the implementation progress to the Sustainability Management Committee on a regular basis. The Office of CEO is set as the executing agency of the sustainability execution team.

➤ **Business Units**

Under the guidance of the sustainability execution team, the sustainable goals of respective units will be incorporated into daily business for implementation, and the implementation of sustainability will be summarized regularly.

Stakeholder Communication

TP-Link is committed to establishing a long-term and stable communication mechanism with all stakeholders, including shareholder and executives, customers, employees, suppliers, government and regulatory authorities, partners, public and the community. The Company actively responds to the expectations and reasonable demands of all parties and actively expands communication channels with stakeholders in all aspects of daily operations. The Company accepts the opinions and feedback of stakeholders to effectively optimize the management of the Company's sustainability and create sustainable value for stakeholders.

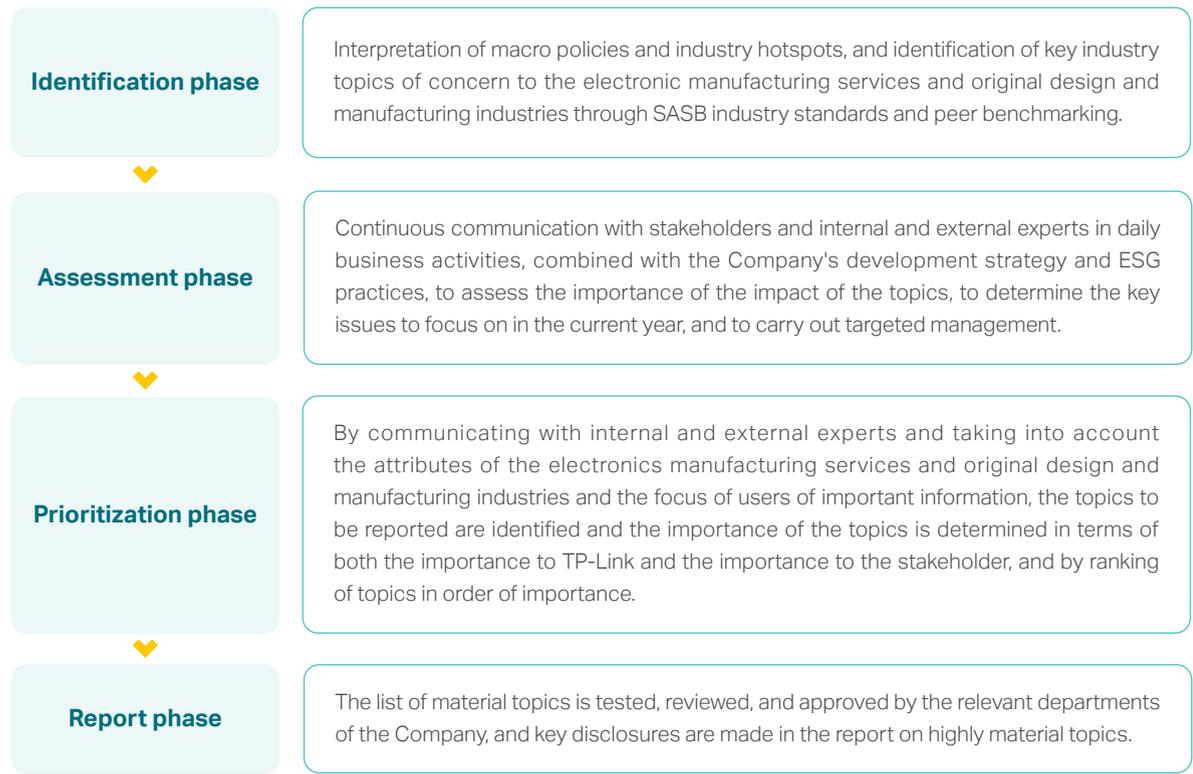
Concerned Topics of Stakeholders and Communication Channels

Stakeholders	Concerned topics	Communication channels
 Shareholder and executives	<ul style="list-style-type: none"> Operational compliance and risk management Sustainability governance Business ethics 	<ul style="list-style-type: none"> Shareholder and executive meetings Sustainability Management Committee
 Customers	<ul style="list-style-type: none"> Green products Quality of product and services R&D innovation and intellectual property protection Training and career development Business ethics 	<ul style="list-style-type: none"> Green design and green package Customer training TP-Link APAC Enterprise Partner Summit 2024 Customer satisfaction surveys After-sales service and complaint channels Sustainability report disclosure
 Employees	<ul style="list-style-type: none"> Occupational health and safety Employees' rights, benefits, and welfare Training and career development Employment compliance, equality and inclusion R&D innovation and intellectual property protection Information security and privacy protection 	<ul style="list-style-type: none"> Work safety management measures Occupational health safeguard measures Employee activities Employee training Employee appraisal and promotion Employee Representative Assembly Collective Labor Agreement Scientific and technological innovation incentives Information security relevant training
 Suppliers	<ul style="list-style-type: none"> Sustainable procurement Green products Resource utilization and circular economy 	<ul style="list-style-type: none"> Supplier review and evaluation Green logistics cooperation Supplier Packaging Recycling Agreement Signing of an Integrity Agreement Supplier Safety Capability Assessment
 Government and regulatory authorities	<ul style="list-style-type: none"> Combating climate change Energy management Pollutant control Business ethics Information security and privacy protection 	<ul style="list-style-type: none"> Applying for Environmental Permits as required by the local government Sustainability report disclosure Integrity Reporting Platform; Government department on-site investigation Proactive reporting and information disclosure
 Partners (alliances and industry organizations)	<ul style="list-style-type: none"> Quality of product and services R&D innovation and intellectual property protection Business ethics Operational compliance and risk management 	<ul style="list-style-type: none"> Product knowledge training Product seminar Participation in association standard setting Activities of associations and societies
 Public and community	<ul style="list-style-type: none"> Community relations and philanthropy Pollutant control 	<ul style="list-style-type: none"> Community activities Sustainability report disclosure Information disclosure on the Company's official website and social media

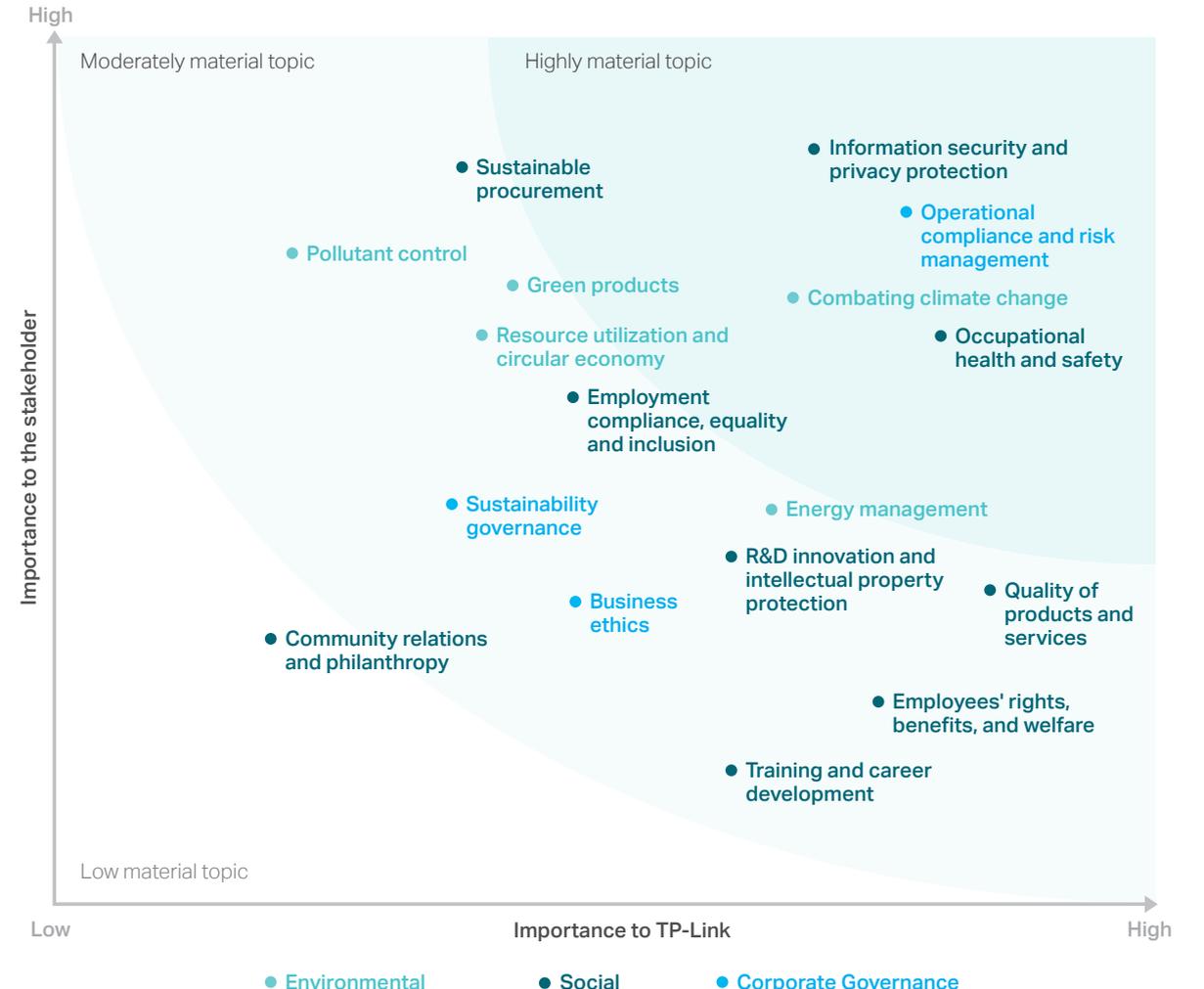
Material Topic Identification and Analysis

Material topics are crucial to the Company's ESG and sustainability management and information disclosure. The Company has established a process for analyzing material topics and regularly conducts material topic identification and analysis. In 2023, the Company identified 17 topics of low, moderate or high materiality and ranked the materiality of the material topics to form a list of material topics, as well as made specific disclosures on highly and moderately material topics.

TP-Link Material Topic Analysis Process



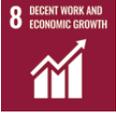
TP-Link Material Topic Matrix



TP-Link 2023 Material Topic Adjustment Statement

Material topics in 2023	Material topics in 2022	Topic adjustment statement
New topics		
Employees' rights, benefits, and welfare	—	New topics added as per SASB industrial standards.
Green products	—	New topics added according to the increased attention to green products shown in external policies and market, which are key topics within the Company.
Adjusted topics		
Energy management	Energy conservation and consumption reduction	The topic definition is expanded. The domestic and foreign energy policies not only focus on energy conservation and consumption reduction, but also attach importance to the Company's energy management, such as management systems, types of use, and energy conservation and consumption reduction measures and achievements.
Resource utilization and circular economy	Raw materials and minerals	The topic is split to include information on raw materials under "resource utilization and circular economy" and information on minerals under "sustainable procurement," which is more in line with the Company's actual situation.
Sustainable procurement		
Quality of products and services	Quality of products and services	Two topics are merged into "quality of products and services," which includes information on "product security."
	Product security	
R&D innovation and intellectual property protection	R&D innovation	The topic definition is expanded to include information on "intellectual property protection."
Employment compliance, equality and inclusion	Diversity and anti-discrimination	Topics are combined. "diversity and anti-discrimination" and "child and forced labor" are merged into "employment compliance, equality and inclusion" topic.
	Child and forced labor	
Community relations and philanthropy	Local community relations	The topic definition is expanded to include information on "philanthropy."
Sustainability governance	Corporate governance	The topic definition is expanded to include information on "sustainability."
Business ethics	Anti-corruption	The topic definition is expanded. Business ethics includes not only anti-corruption, but also anti-fraud, internal and external integrity publicity and implementation and other related content.
Operational compliance and risk management	Operations and trade compliance	Topics are combined. Operational compliance topic and risk management topic are combined and business continuity is maintained as a part of corporate risk management.
	Business continuity	
Deleted topics		
—	Market performance	The topic is deleted. By reference to GRI 202, "market performance" topic content has been incorporated into the section which is relevant to employment.

Sustainable Development Key Goals and Progress of TP-Link

Sustainability goals and commitments		Progress in 2023	SDGs
 <p>Environmental</p>	<p>Overall net-zero goal: To realize net-zero greenhouse gas (GHG) emissions across the value chain by 2050.</p> <p>Short-term goal: To reduce absolute Scope 1 and 2 GHG emissions by 42% by 2030 compared to the base year of 2023. To reduce absolute Scope 3 GHG emissions by 25% by 2030 compared to the base year of 2023.</p> <p>Long-term goal: To reduce Scope 1, 2 and 3 GHG emissions by 90% by 2050 compared to the base year of 2023.</p>	 In progress	 
	1% annual reduction in per capita water use by 2025 compared to the base year of 2022	 In progress	
	Raw material conservation programs ≥ 10 programs/year	 Completed	
	100% compliance with environmental impact factor (waste gas, water, noise and waste) emission standards	 Completed	
 <p>Social</p>	0 major incidents of information security	 Completed	      
	0 incidents of child labor, forced labor, discrimination, or harassment	 Completed	
	100% resolution rate of employee complaints and feedback	 Completed	
	100% coverage rate of holiday and birthday benefits for in-service employees	 Completed	
	100% overtime payment rate	 Completed	
	No less than 1 employee symposium per month	 Completed	
	100% coverage rate of employee health and safety training of Manufacturing Centers	 Completed	
	0% of rate of fatalities resulting from work-related injuries	 Completed	
 <p>Governance</p>	0 incidents of corruption	 Completed	
	0 complaints (or lawsuits) of anti-competitive behavior	 Completed	

02

Environmentally Friendly Actions

Material Topics

- ▶ Combating climate change
- ▶ Green products
- ▶ Resource utilization and circular economy
- ▶ Energy management
- ▶ Pollutant control



Highlights >>>



51 programs

on optimizing packaging materials were completed.



57 suppliers

Signed the *Supplier Packaging Material Recycling Agreement*.



0.64%

proportion of products shipped by sea increased compared to 2022.



73.27%

Utilization rate for cooling water.



0 case

Number of punishments caused by violating the environmental protection laws.

Working Together to Address Climate Challenges

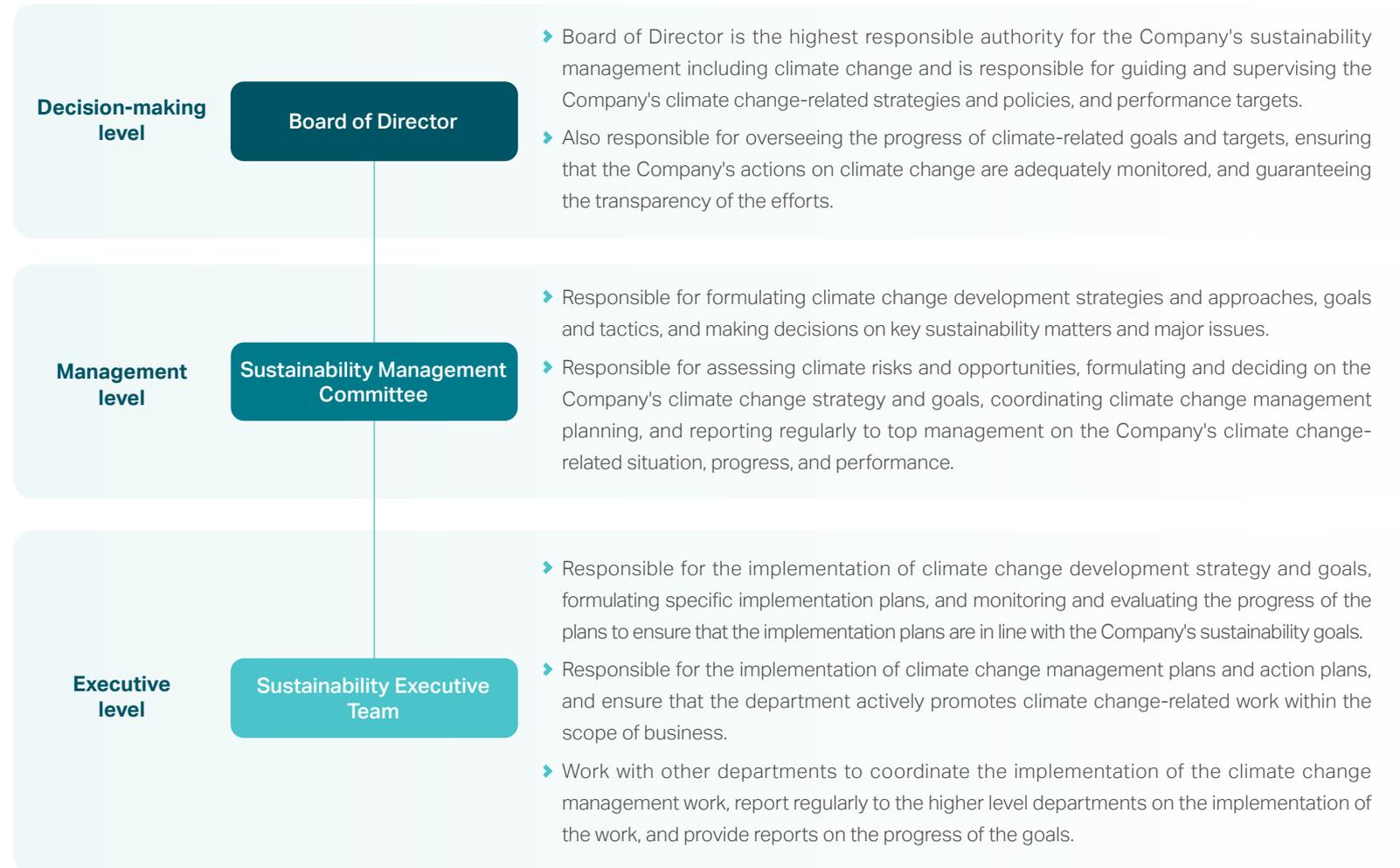
Climate change is a common global challenge that threatens the sustainability of humankind. Fueled by the successful convening of the 28th United Nations Climate Change Conference (COP28), TP-Link actively practices the concept of green and sustainability by carrying out Company-wide carbon accounting, and identifying and managing climate risks and opportunities. The Company is committed to contributing to the global goal of climate change combating.

With reference to the recommended framework specified in the *International Financial Reporting Standard on Sustainability Disclosure 2: Climate-related Disclosures* (IFRS S2) issued by the International Sustainability Standards Board (ISSB), the Company has established a comprehensive climate change governance framework covering four levels, namely, governance, strategy, risk management, and metrics and targets. The framework is intended to sort out and analyze the climate risks and opportunities with significant impact on the Company, and thus help us to formulate effective measures.

➤ Governance

TP-Link integrates climate change into sustainability management, creates a climate change governance system, and establishes a climate change governance framework consisting of "decision-making level-management level-executive level." The Company continuously strengthens the ability of the decision-making levels to supervise, identify and manage climate-related risks and opportunities, to formulate climate-related strategies and goals suitable for the Company's development. TP-Link actively deals with climate-related risks and seizes opportunities in the global low-carbon transition.

TP-Link Climate Change Governance Framework

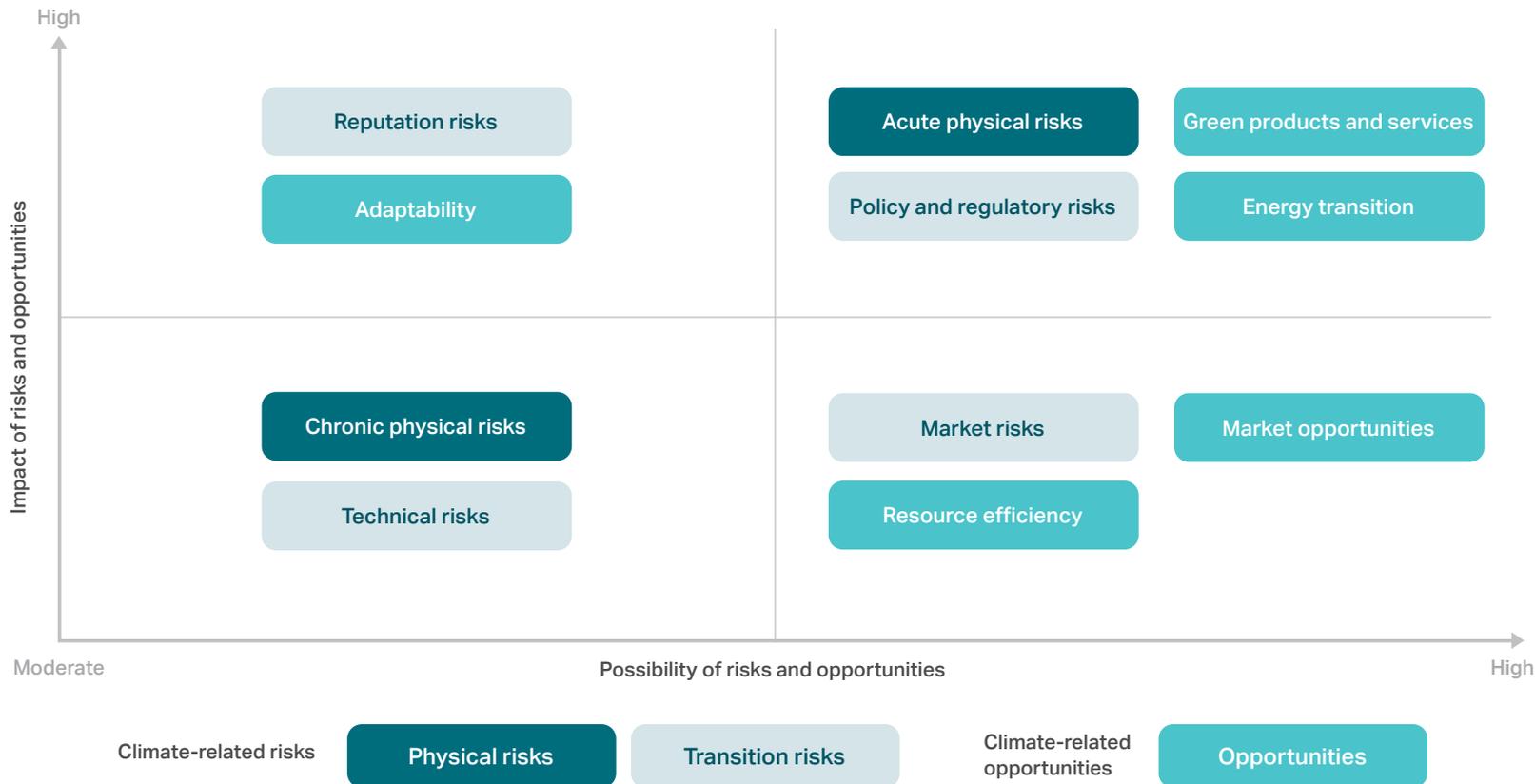


► Strategy

In accordance with the IFRS S2 Recommended Framework, the Company identifies climate-related risks and opportunities. We conduct scenario analyses based on our own business characteristics, industry developments, and expert opinions to assess the risks that the Company may face under specific scenarios and formulate strategies to address them.

The Company carries out a comprehensive carbon footprint verification in accordance with ISO 14064 to provide data support for the development of carbon emission reduction strategies.

TP-Link Climate Change Risk and Opportunity Identification Matrix



► Risk Management

TP-Link identifies the climate risks and opportunities with an important impact on the Company in light of business characteristics, industry developments and expert opinions, and comprehensively evaluates the impact of the risks and opportunities on the Company's business model, productions and operations, financial condition and performance, and value chain. TP-Link completes the ranking matrix based on the impact and the probability of occurrence.

Based on the results of the identification, the Company formulates risk and opportunity countermeasures and incorporates climate risk into the Company's risk management. TP-Link realizes sustainability and wins competitive advantages in the market by enhancing resource efficiency, transforming toward clean energy, developing low-carbon products and services, ensuring supply chain sustainability, and strengthening the emergency response mechanism.



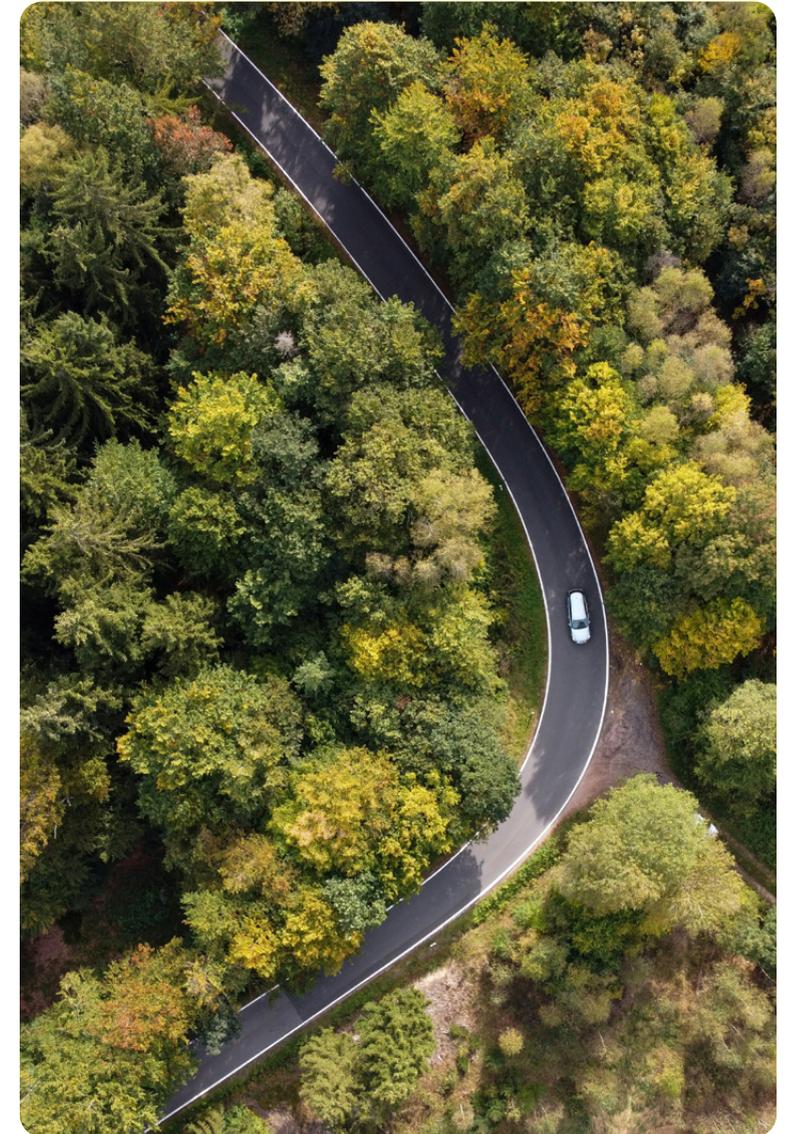
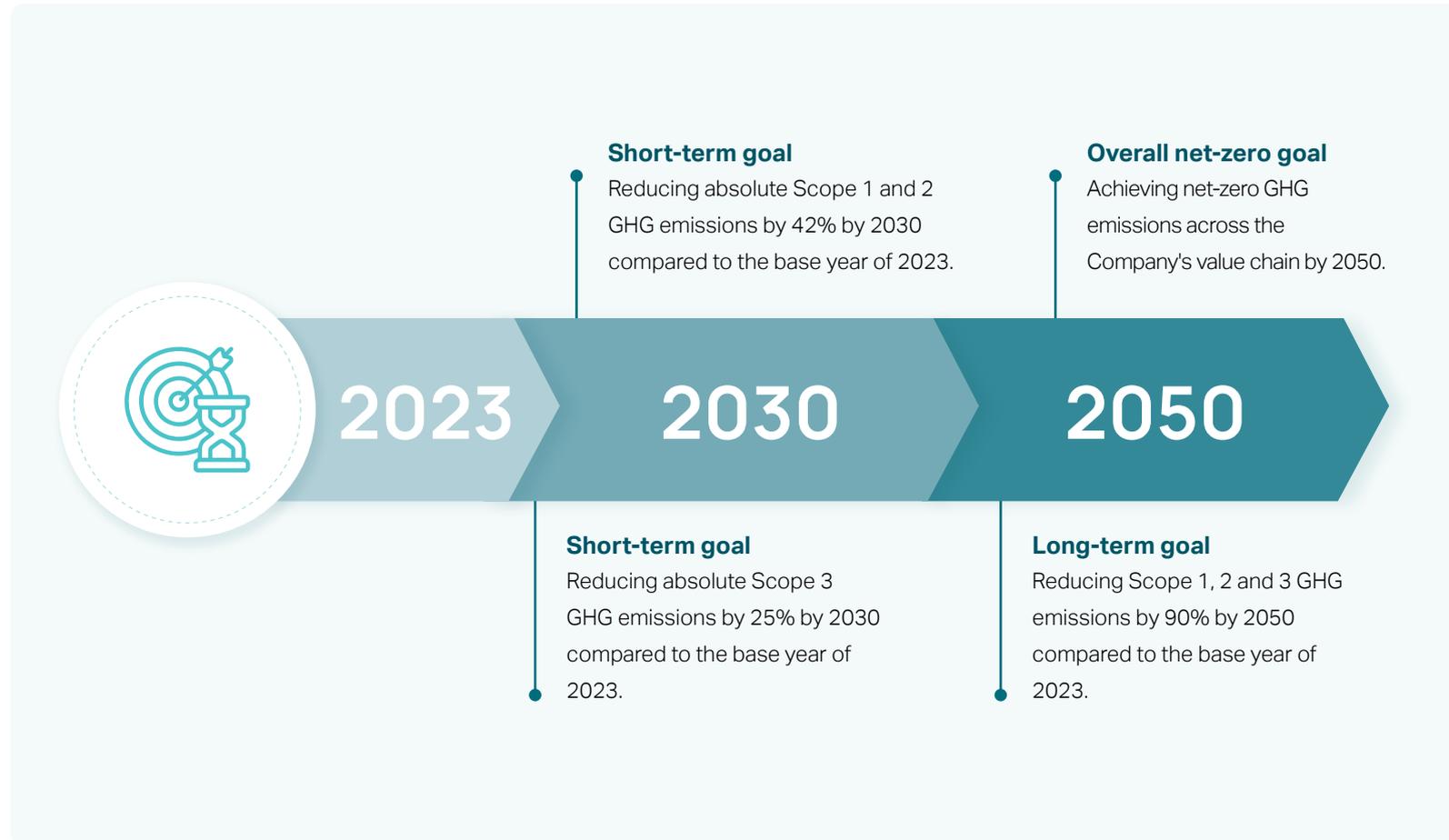
Highly Material Climate-related Risks and Opportunities of TP-Link and Potential Financial Impacts

Risk and opportunity categories	Description	Potential impact			Countermeasures	
		Financial impact	Impact period	Value chain impact		
Risks						
Policy and regulatory risks	Carbon emissions	To promote global greenhouse gas emission reduction, several countries or regions have set up their own emissions trading systems (ETS). In Shenzhen, China, key emission enterprises will receive annual quotas approved by the local government and be required to complete quota cleanup obligations before the end of the year. TP-Link has initiated the carbon emissions verification in the reference year of 2023 in accordance with the requirements of the Shenzhen Municipal Bureau of Ecology and Environment and is expected to be officially included in the carbon emission control in 2025. If our carbon emission exceeds the government’s given quota in the verification year, we need to bear the cost of purchasing carbon emission rights.	Indirect (operating) costs increase	Short, medium, and long term	Production and operation	Based on the results of the identification, the Company formulates risk and opportunity countermeasures and incorporates climate risk into the risk management. TP-Link realizes sustainability and wins competitive advantages in the market by enhancing resource efficiency, transforming toward clean energy, developing low-carbon products and services, ensuring sustainability of supply chain, and strengthening the emergency response mechanism. In 2023, all of the energy conservation projects that we have completed implementing are expected to save 7,632 MWh of electricity usage annually.
	Environmental information disclosure	The improvement in environmental information disclosure requirements may increase the information disclosure cost and management pressure of the Company, and affect the image and reputation of the Company and the trust of investors and consumers in the Company. Some of TP-Link’s Customs in Europe force their suppliers to disclose environmental information. If we fail to respond to the requirements of these business opportunities, we may directly lose their orders.	Constrained growth	Short, medium, and long term	Production and operation	We have committed to setting an SBT and have committed to confirming this target through SBTi within 2 years. As this mind, our three manufacturing centers underwent third-party certification of ISO 14064 in 2023, and we plan to expand the ISO14064 verification to the entire group in 2024. At the same time, we will also complete the ISO 50001 certification for our three manufacturing centers by 2024, which can help us to manage energy usage to achieve the Science Based Target.

Risk and opportunity categories	Description	Potential impact			Countermeasures
		Financial impact	Impact period	Value chain impact	
Acute physical risks	<p>Extreme weather events such as typhoons and heavy rains can have a severe impact on our factories and suppliers in China and Southeast Asia. In April and May 2023, the Company's demand for internal pulp boxes increased significantly due to production growth. However, due to concentrated rainfall, a total of six internal pulp box suppliers halved their production capacity or even suspended production for a short period. Material supply problems affected the production and shipment of factories. Even one factory was shut down due to flooding.</p> <p>Once a supplier suffers a reduction in capacity or a shutdown due to weather impacts, it would increase our material costs and disrupt our production schedule.</p>	Interference to productive capacity	Short, medium, and long term	Production and operation Upstream supply	The Company recognizes the potential for suppliers to disrupt their production due to weather issues, which could impact our production schedule. As a result, we increased our raw material inventory turnover days to avoid short-term supply impacts from supplier production reductions/shutdowns due to extreme weather. We also added suppliers and increased additional mold supplies. In 2023, our production schedule was not impacted by supplier shutdowns or capacity reductions.
Opportunities					
Green products	Emissions from purchased goods and services account for approximately 30% of TP-Link's total Scope 3 emissions. Reducing unnecessary packaging of products and optimizing the structural design of products will help to reduce the use of raw materials and reduce the weight of products transported, while also saving our operating costs.	Direct costs reduce	Short and medium term	Production and operation Logistics Marketing & sale Services	The Company continues to optimize the production processes and procedures, and optimize packaging design to reduce the amount of packaging materials used. Reducing the use of materials helps us achieve our net-zero target without increasing our financial burden.
Energy transition	TP-Link has three manufacturing centers in China and Vietnam. After evaluation, the area of the three manufacturing sites that can be used to build PV power generation systems exceeds 50,000 m ² .	Indirect (operating) costs reduce	Short, medium, and long term	Production and operation	The Company's Scope 2 greenhouse gases emissions come from electricity usage, and increasing the percentage of green electricity will help us reduce Scope 2 greenhouse gases emissions. Building a rooftop photovoltaic (PV) project would increase percentage of green electricity without increasing our financial burden. Therefore, we are actively investigating the feasibility of the PV project and have completed a measurement and assessment of the available area.

► Metrics and Targets

To bolster carbon neutrality, TP-Link comprehensively strengthens carbon emission reduction, implements carbon footprint verification of manufacturing centers and LCA verification of some products, and sets carbon emission indicators and goals. In 2023, TP-Link submitted short-term and net-zero goal commitment to the Science Based Targets Initiative (SBTi).



TP-Link GHG Emissions Performance^{1,2}

Indicator	Unit	2022	2023
Total greenhouse gas emissions (Scope 1+ Scope 2+Scope 3)	tCO ₂ e	2,429,660.41	5,548,933.41
Scope 1 greenhouse gas emissions	tCO ₂ e	736.08	19,813.05
Scope 2 greenhouse gas emissions	tCO ₂ e	18,504.98	56,096.18
Scope 3 greenhouse gas emissions	tCO ₂ e	2,410,419.35	5,473,024.18

Note 1: [Statistic scale] the statistics scale of GHG emissions in 2023 is the scope covered in the Report (detailed in About the Report). In 2022, the GHG emissions statistics scale is the emissions statistics in the Shenzhen Manufacturing Center. As a result, total GHG emissions in 2023 have increased significantly over the previous year.

Note 2: The calculation of greenhouse gas emissions is based on ISO 14064-1:2018 and the GHG Protocol. Emission factors for greenhouse gases refer to the *UK Government GHG Conversion Factors for Company Reporting (2023)*, the *IPCC Guidelines for National Greenhouse Gas Inventories in 2006*, the *Guidelines for Greenhouse Gas Emissions Accounting and Reporting for Electronic Equipment Manufacturing Enterprises*, and the *General Rules for Calculating Comprehensive Energy Consumption (GB/T 2589-2020)*, etc.

GHG Emission Performance in Vietnam Manufacturing Center

Indicator	Unit	2023
Total greenhouse gas emissions (Scope 1+ Scope 2+Scope 3)	tCO ₂ e	715,143.11
Scope 1 greenhouse gas emissions	tCO ₂ e	79.98
Scope 2 greenhouse gas emissions	tCO ₂ e	5,269.03
Scope 3 greenhouse gas emissions	tCO ₂ e	709,794.10

GHG Emission Performance in Shenzhen Manufacturing Center¹

Indicator	Unit	2022	2023 ²
Total greenhouse gas emissions (Scope 1+ Scope 2+Scope 3)	tCO ₂ e	2,429,660.41	4,426,501.74
Scope 1 greenhouse gas emissions	tCO ₂ e	736.08	8,691.63
Scope 1 greenhouse gas emissions	tCO ₂ e	18,504.98	19,753.18
Scope 1 greenhouse gas emissions	tCO ₂ e	2,410,419.35	4,398,056.93

Note 1: [Statistic scale] in 2023, the Shenzhen Manufacturing Center replaced refrigerants, so the total GHG emissions of Scope 1 increased compared with the previous year; Scope 3 was expanded to include the transportation data of overseas raw material suppliers in the verification, so the total GHG emissions of Scope 3 also increased compared with the previous year.

Note 2: The total GHG emissions of Scope 3 of Shenzhen Manufacturing Center in 2023 in the Report are inconsistent with those in the *2023 Sustainability Report of TP-Link International Shenzhen Co., Ltd. Guangming Branch*. The IEA emission factor is used to replace the IPCC recommended coefficient in the original report at the time of accounting for the GHG emissions of electricity consumption of downstream products in Scope 3 in the Report, resulting in inconsistency between the two disclosed data. The GHG emissions of Shenzhen Manufacturing Center in 2023 shall be subject to the data in the Report.

GHG Emission Performance in Dongguan Manufacturing Center

Indicator	Unit	2023
Total greenhouse gas emissions (Scope 1+ Scope 2+Scope 3)	tCO ₂ e	379,049.85
Scope 1 greenhouse gas emissions	tCO ₂ e	7,720.95
Scope 2 greenhouse gas emissions	tCO ₂ e	24,273.87
Scope 3 greenhouse gas emissions	tCO ₂ e	347,055.03

Green Intelligent Manufacturing for Quality Life

Green consumption is key to the green and low-carbon transformation of the entire production and lifestyle, and increasing the supply of green products is an important part of the reform of the ecological civilization. TP-Link adheres to the concept of "Embracing sustainable practices and technologies, TP-Link strives to minimize waste and emissions for enduring environmental impact." The Company seeks to boost the green product development and facilitate the transformation and upgrading of consumption by strengthening the design and R&D of green products and prioritizing the use of green product packaging.

Green Design and R&D

TP-Link adopts the management concept of product life cycle assessment (LCA). The Company aims to improve the energy efficiency and life cycle of the products, and to reduce the carbon emission of the products by considering the use of low-carbon and green raw materials, processes and technologies during the product design and R&D stages. In 2023, while ensuring product quality and experience, the Company continued to optimize product energy conservation solutions by debuting smart LED energy conservation lamps and the first battery camera with direct Wi-Fi connection to AP, etc. TP-Link also set up projects to develop smart door locks with extended endurance and optimized the design and development of hardware and software for energy conservation products. The Company aimed to boost the application of clean energy and accelerate the realization of energy conservation and emission reduction goals by virtue of the green innovation of ICT products.

In 2023, the Company commissioned a third party to evaluate the life cycle of one 5G AX3000 Wi-Fi 6 Telephony Router/NX511v-BOX 5G TPLINK (NX511V) MIXNW product produced in the Shenzhen Manufacturing Center from 18 perspectives. The product was verified by the third party to meet the ISO 14044 environmental management product life cycle evaluation standards.



Product LCA Verification Statement

Case Designing and Developing Outdoor Products with Solar Power Supply Panels

EAP115-bridge KIT 1.0, EAP211-bridge KIT 1.0 and other outdoor models are designed with a compatible solar-panel power supply circuit, which can be paired with the Company's VIGI-SP60xx and VIGI-SP90xx series for green energy power supply. Due to solar power supply panels, 11,000kWh of energy can be saved on products shipped annually.



Solar Power Supply Panels and Power Supply Solutions for Outdoor Products

Case Debuting Green Surveillance Camera Products with Low Power Consumption

In 2023, the Company debuted the Tapo C425, the first battery camera with direct Wi-Fi connection to an AP. To reduce standby power consumption, the hardware of the product features low power consumption design in terms of material selection and power supply tree, and the software is designed with low power consumption protocol based on the Company's Deco series of Mesh products. The standby power consumption of the product is reduced from 2.08mW to 1.39mW with an optimization rate of 33%, and is lower than that of the same type of products on the market. The endurance is at a leading level, with a theoretical endurance of up to 1 year in typical scenarios.



No Hub Required
Connect the camera to your network wirelessly with Wi-Fi for more flexible installation.

Tapo C425

▶ Green Packaging

TP-Link emphasizes the application of green, environmentally friendly, recyclable and sustainable product packaging. The Company has formulated systems related to packaging material dimensions and materials such as the *Design Specification for Inner Pulp Boxes* and the *Design Evaluation Specification for Color Boxes*. TP-Link takes the initiative to select renewable packaging materials such as recyclable paper and minimize the use of non-biodegradable packaging materials such as pearl cotton, and promotes the optimization of the existing packaging accessories of the products. The Company endeavors to promote the use of green packaging and reduce the impact of packaging materials on the environment while reducing the cost by eliminating the CD-ROMs and paper cards of products.



Completed
27 programs

on elimination of pearl cotton and protective film for smart socket series products.



Completed
24 programs

on on reduction of the color box dimension for DECO products.

Case Reduce the Use of Packaging Materials

For the TL-WN722N model, the Company eliminates the included driver CD-ROM so that users can download the driver from the website and install it, reducing the use of CD-ROMs by 400,800pcs, totaling 6,813.6kg.



Schematic of TL-WN722N Model before and after Optimization of Packaging Materials

For the HX716pro model, the Company reduces the use of packaging materials by 240,000 pcs per year by reducing the dimension of the white box and eliminating packaging materials such as blisters, accessory boxes, paper cards, and EVA foam.



Schematic of HX716pro Model before and after Optimization of Packaging Materials

Case Replacing Product Plastic Packaging According to Customer Needs

The Company minimizes the plastic packaging of the products as much as possible, in accordance with the requirements of the customers in the UK. After evaluation by the Company's structural engineers and materials engineers, the Company reduced the use of polystyrene (PS) and polyvinyl chloride (PVC) in the packaging of products such as KE100, Tapo H100, KE100 KIT, and Tapo T110. In 2023, the Company supplied 55,000pcs of Tapo P110 (2-pack) (UK) products without plastic packaging to customers in the United Kingdom.

➤ Green Logistics

As a key link between products and markets, logistics affects the environmental performance of product life cycle. TP-Link's products are sold all over the world, and green logistics is valued as an important part of the Company's green and sustainability. The Company and the logistics cooperation organization leverage multimodal transport with "sea transportation-based, supplemented by air transportation" logistics mode. TP-Link aims to reduce the product transfer links, improve product transportation efficiency, and recycle product loading tools to promote green logistics.

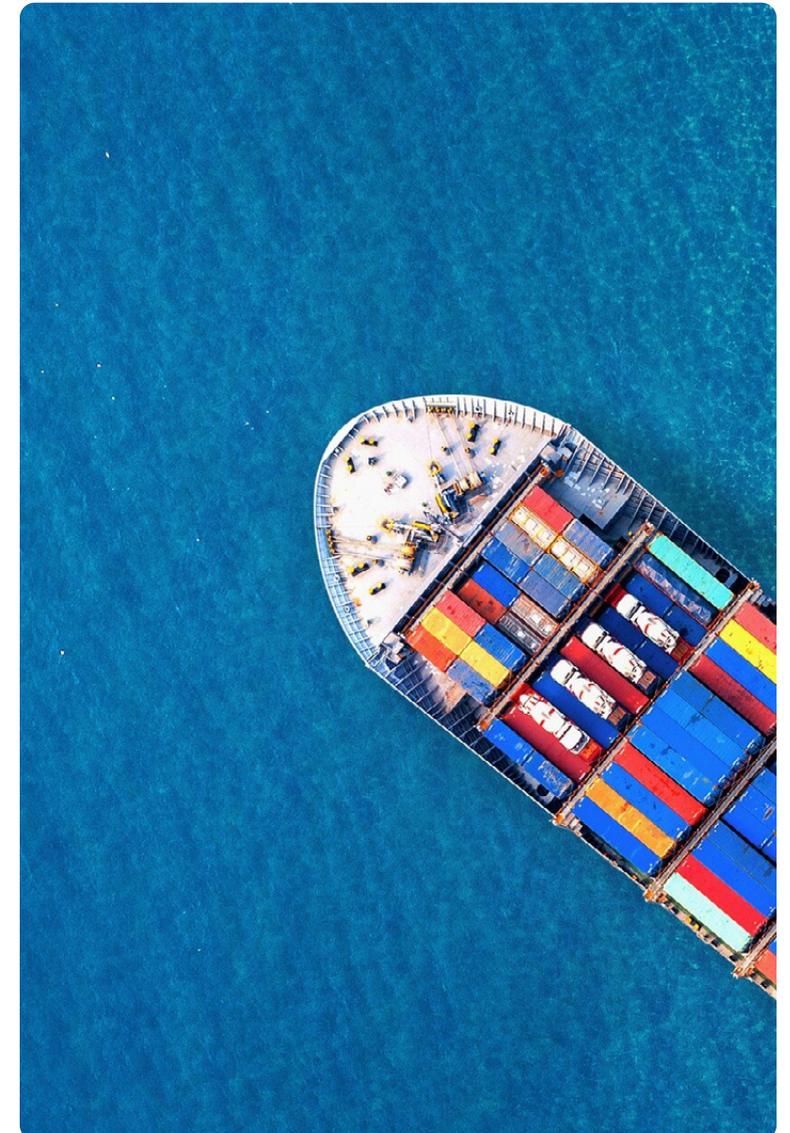
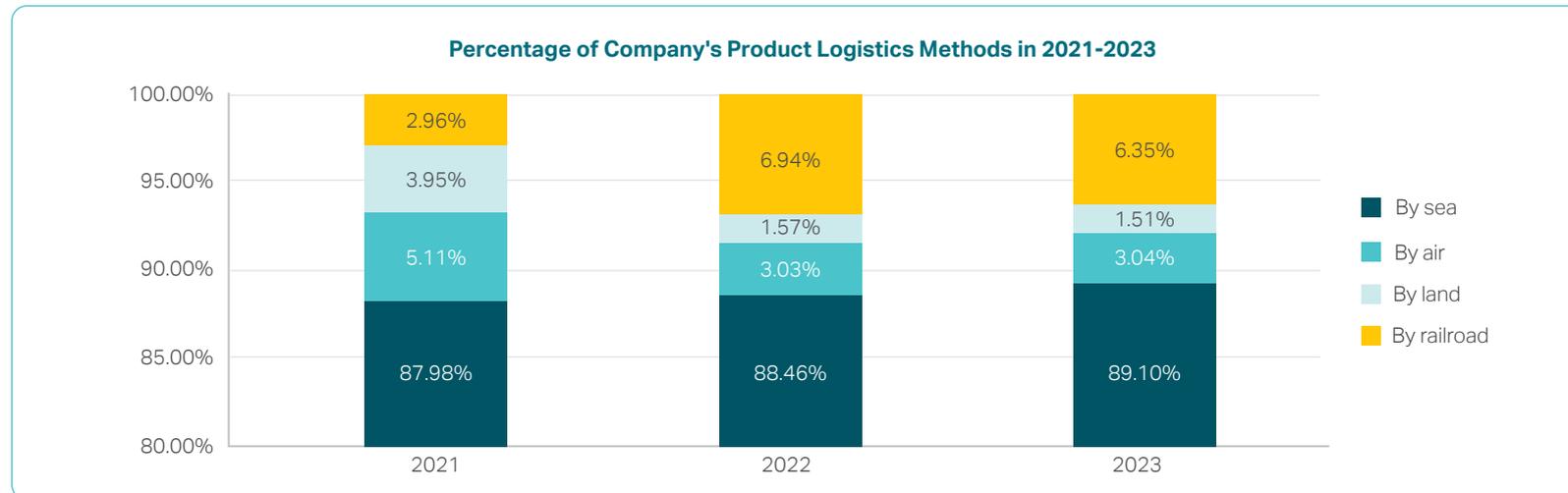
According to Climate Action Accelerator, sea transportation causes 19gCO₂/t•km of GHG emissions, while air transportation features 1,054gCO₂/t•km of GHG emissions. The carbon intensity of sea transportation is relatively smaller than that of air transportation. More goods can be transported through sea transportation. If sea transportation is used systematically, it can

not only reduce GHG emissions, but also save costs significantly.

From 2021 to 2023, the Company continued to reduce the GHG emissions generated by the logistics and transportation of products by reducing the overall use of air transportation and increasing the use of sea transportation, to reduce the greenhouse gas emissions generated by the logistics and transportation of products and mitigate the negative impact on the environment.



In 2023,
89.10% products shipped by sea, with an increase of
0.64% from 2022



Resource Integration and Circular Economy

Green, low-carbon and recycling development has become a global consensus and is the basic approach for easing resource constraints and optimizing the energy structure. The development of circular economy is one of the major strategies for China's economic and social development, which aims to promote the economical and intensive use of resources, strengthen the rational allocation of energy and foster an ecological civilization. TP-Link seeks to create a circular economy system, improve the efficiency of resource and energy utilization, and promote high-quality and sustainable economic and social development.

▶ Water Resource Management

The water resources consumed in TP-Link's productions and operations are mainly municipal water.

The Company strictly abides by the laws, regulations, ordinances and policies of the location where TP-Link operates. The Company has formulated the *Water Conservation Management System*, *Drinking Water Hygiene Management Code* and other systems, and takes measures such as carrying out all kinds of water conservation publicity, and using or switching to water conservation appliances, to improve the efficiency of water resource utilization.



Water Conservation Sign

In 2023, the Company's air-conditioning and refrigeration system and the cooling system of the injection molding process were provided with recycled water, which was cooled through cooling towers and recycled, with a utilization rate of 73.27%.

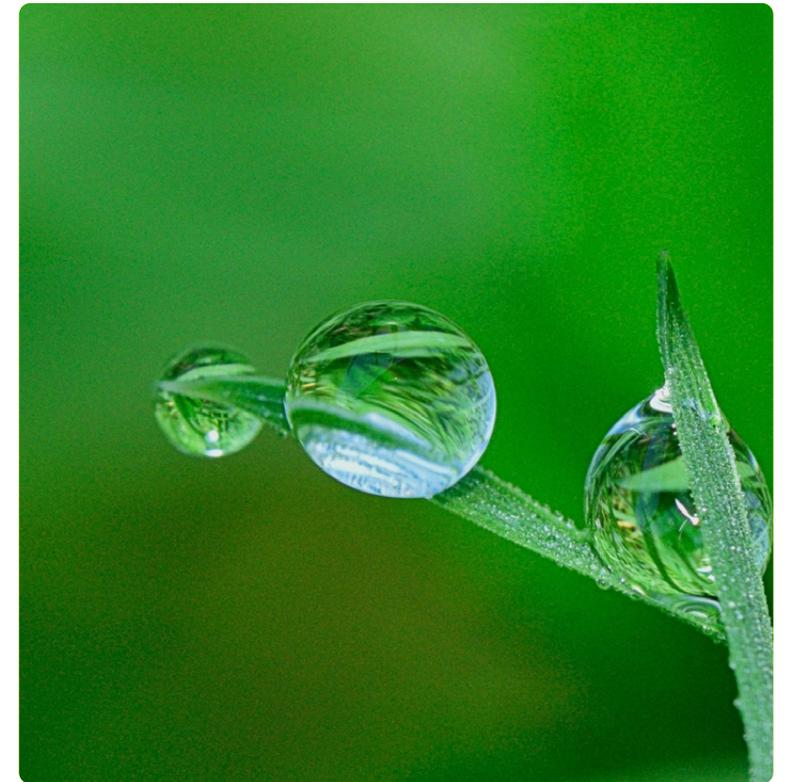
The Shenzhen Manufacturing Center carried out a project to improve the water conservation of toilet tanks and faucets, which was expected to save 19,163.42m³/year.

▶ Raw Material Management

The raw materials used in TP-Link's production include structural components, hardware, electronic materials, plastics and chemicals, and recyclable materials are used to make the housing.

The Company has formulated the *Raw Material Logistics Management Code*, *Material Borrowing Management Code for Raw Material Warehouse*, *Chemical Management Code*, *Chemical Safety Management Control Procedure* and other systems to standardize the use of various types of raw materials, temporary storage and other management procedures. TP-Link takes measures including strengthening the fine management of chemicals, setting up special storage warehouses for chemicals, establishing the accounts for out-put and in-put of warehouse, and setting up danger reminder signboards. The Company requires chemical management and operation personnel to be licensed and participate in relevant training.

The Company plans and implements special raw material reduction. In 2023, the Company continued to work on raw material conservation for materials, byproducts, defective products, scrapped materials, and auxiliary appliances to improve raw material utilization rate.



TP-Link Raw Material Conservation Measures 2023

Production materials

- The amount of copper, sizing material, soldering tin and other raw materials used in the production of power cords was saved by reducing the length of the cords, the amount of material used for soldering, and the amount of ties used. In 2023, the Dongguan Manufacturing Center saved a total of about 28.87t of copper, sizing material, soldering tin, and ties used in the production of power cords.
- The plastic sprue materials generated during the production were reused as raw materials in a certain percentage. In 2023, Dongguan Manufacturing Center recycled sprue materials, reducing the use of injection molding raw materials by a total of approximately 1,448.53t.

Defective products

- The unshipped products identified as defective products after quality inspection were returned, and those tested as usable continued to be used as raw materials, and those that were completely unusable were handled by a third party.

Scrapped materials

- Loss control on the percentage of materials scrapped was conducted and high-value materials were managed in a hierarchical and classified manner.

Auxiliary materials

- Carrier plates, plastic boxes and product storage containers in the production factory can be reused.
- Product container utilization rate was improved by adopting side-sway and raising pallet height.

To increase the sustainability of raw material packaging, the Company collaborates with raw material suppliers to enhance the recyclability of raw material packaging. As of the end of 2023, the Company signed the *Supplier Packaging Material Recycling Agreement* with 57 suppliers. Recyclable raw material packages were recycled and disposed of by the suppliers in accordance with the agreement.

Case Optimizing Processes and Procedures to Reduce Raw Material Usage

The assembly cost of Tapo C500 series models has been optimized and improved. By optimizing the production procedures through process, the Company reduces the use of raw materials such as adhesive primer, electronic silicone, UV adhesive and lubricating grease, saving a total of about 363,110.40pcs/year in material usage.

Heat dissipation materials of EX220 models have been optimized. Considering the high temperatures in the relevant regions, the Company takes additional heat dissipation measures for this model to reduce raw materials such as heat sinks, thermally conductive silicone pads, and shielding covers, saving a total of approximately 1,250,000pcs/year in material usage, provided that the product temperatures meet the requirements.

IPC serial port material has been eliminated for optimization. Under the condition that the presence or absence of serial port does not affect production and user requirements, and provided that the demand for safety certification is met, the Company disables the hardware and software serial port functions to reduce the capacitor/resistor materials and surface mounting materials in the serial port circuit that can be eliminated, saving a total of about 5,306,460pcs/year in material usage.



➤ Energy management

The types of energy used in TP-Link's productions and operations mainly include electricity used in various production processes, natural gas used in the cafeteria, gasoline used in rented shuttle buses, diesel used in logistics and transportation vehicles, and diesel used in emergency generators.

The Company strictly abides by the laws, regulations and ordinances where TP-Link operates. The Company has formulated systems such as *Energy Conservation and Emission Reduction Management System*, *Equipment Energy Conservation Management System*, *Energy Management Operation Control Procedures* and *Environmental Energy Management and Usage Specifications*. TP-Link sets annual energy conservation goals, carries out technological innovation projects for energy conservation, improves the energy utilization rate and promotes the energy conservation and carbon reduction.

In 2023, the Company took measures such as adoption of energy conservation equipment and elimination of old equipment to reduce energy consumption in production and raise energy utilization rate. The Company eliminated and replaced a total of 17 sets of old equipment, including smoke exhaust centrifugal fans, wave soldering equipment and reflow soldering equipment of over 20kW, totaling 10 sets of equipment.

Case

Reasonably Designing Reflow Oven Heating and Cooling Time for Energy Conservation and Cost Reduction

According to the energy consumption relationship of the reflow oven in different operating states, the Company takes into account the scheduling plan, equipment stability and other factors to adjust the SMT reflow soldering production plan and implement the reflow oven cooling program for energy conservation in the operation of the reflow oven. After the improvement, the saved electricity is about 167,100kWh/year.



Reflow Oven

Case

Replacing Adsorption Dryers with Refrigeration Dryers for Energy and Resource Conservation

Shenzhen Manufacturing Center originally used adsorption dryer as the compressed gas drying equipment in the air compression shop, which features high operating power and high cost of regular replacement of consumables. Based on a comprehensive evaluation, the Company replaced the existing adsorption dryers with more energy-efficient refrigeration dryers with less consumables. After replacement, the electricity saved is about 368,500kWh/year.



Refrigeration Dryer

Strict Pollution Control and Ecological Protection

► Environmental Management

TP-Link adheres to the environmental management policy of "protect the environment, prevent pollution, comply with laws and regulations, and promote development", and strictly abides by the laws, regulations and ordinances of the locations where TP-Link operates. The Company has formulated systems such as the *Quality and Environmental Management Manual*. TP-Link published the [Environmental Policy](#) in 2023 to improve the environmental management system. The Sustainability Management Committee coordinately organizes the environmental management to continuously strengthen environmental risk management and promote the prevention and control of pollution at the source. During the reporting period, there were no cases in which the Company and subsidiaries were subject to administrative or criminal penalties for violating environmental laws and regulations.

As of the end of June 2024, one R&D center (Shenzhen R&D Center) and two manufacturing factories (Shenzhen Manufacturing Center and Vietnam Manufacturing Center) have been certified with ISO 14001 environmental management system. As of the end of June 2024, ISO 14001 certification has covered 66.67% of the Company's manufacturing factories.

The Company has formulated the *Response Plan for Environmental Emergencies*, assessed the environmental incidents that may occur in the production process, established an environmental emergency response team, standardized the process of dealing with various types of environmental emergencies, and configured the resources for emergency response. TP-Link continued the efforts to carry out the publicity and implementation of environmental protection and emergency response drills for all the employees to improve their environmental protection awareness and response ability to environmental emergencies, and to reduce the environmental risks that may be brought about by the production activities. In 2023, the Company and subsidiaries were not classified as key environmental regulatory objects by the regulatory authorities of the countries and regions in which they operate.



► **Pollution Control**

The waste gas generated in TP-Link's production and operation is mainly tin and its compounds, VOCs, NMHC, and waste gas of emergency generator generated during the manufacturing process, as well as canteen cooking fumes generated in the course of operation, etc. The wastewater produced is mainly the domestic sewage generated during the work and life of the employees and the industrial wastewater produced by Dongguan Manufacturing Center (other Manufacturing Center do not produce industrial wastewater). The solid wastes generated are mainly the hazardous wastes such as solvent-containing wastewater, waste mineral oil, waste activated carbon, waste circuit boards, waste packaging and containers; the general solid waste like waste packaging materials, waste office supplies, waste paper, and waste wood, and domestic garbage.

The Company takes appropriate disposal measures for waste gas, wastewater and solid waste generated during production and operation. Waste gas and domestic wastewater are tested qualified and discharged in compliance with regulations, and industrial wastewater and hazardous waste are treated in compliance with regulations by qualified suppliers. The purpose is to reduce the impact of the Company's operation on the environment.

TP-Link Waste Gas, Wastewater and Waste Disposal Measures

Type	Disposal method	2023 initiative
<p>Waste gas</p>	<p>Various types of waste gases are discharged up to the standard through the exhaust pipe of the factory or office building after being treated by the waste gas treatment device.</p>	<p>6 sets of upgraded production exhaust smoke purification facilities are installed at Shenzhen Manufacturing Center. The treatment method is changed from the original primary activated carbon to filter + secondary activated carbon, to improve the efficiency of waste gas treatment.</p>  <p>Modified Activated Carbon Box</p>
<p>Wastewater</p>	<p>The production factory is equipped with a "rain and sewage diversion" system, which diverts rainwater and sewage to reduce the impact of sewage on waters. After pre-treatment by septic tank, domestic sewage is discharged into the municipal sewage pipe network through the discharge port of the factory, and then discharged to the municipal sewage treatment factory.</p> <p>Dongguan Manufacturing Center has developed the <i>Industrial Wastewater Management Specifications</i>, and collects the small amount of industrial wastewater generated and commissions the third party to dispose of the industrial wastewater. Dongguan Manufacturing Center regularly records the inspection of generation, transfer and temporary storage points.</p>	
<p>Solid Waste</p>	<p>The Company signed recycling agreements with some of the raw material suppliers for recyclable waste packaging materials, which are directly recycled and reused by the suppliers. The rest of the general solid waste is collected and classified by qualified third parties for disposal.</p> <p>Hazardous waste is recycled and disposed of by qualified third parties. The third parties will reuse and dispose of waste circuit boards (47% of reused), waste packaging (3% of reused), and waste activated carbon (9% of reused).</p>	

03

Innovation and Empowerment for a Digital Economy

Material Topics

- ▶ Quality of products and services
- ▶ R&D innovation and intellectual property protection
- ▶ Information security and privacy protection
- ▶ Sustainable procurement



Highlights >>>



5,383 participants

information security training for employees in 2023.



97.47%

customers were satisfied with our products and services.



91.91%

material supplier honesty and Integrity Agreement Signing Rate



348

authorized patents has boasted by the end of 2023.



85.1%

Suppliers conducted the social responsibility questionnaire.



591

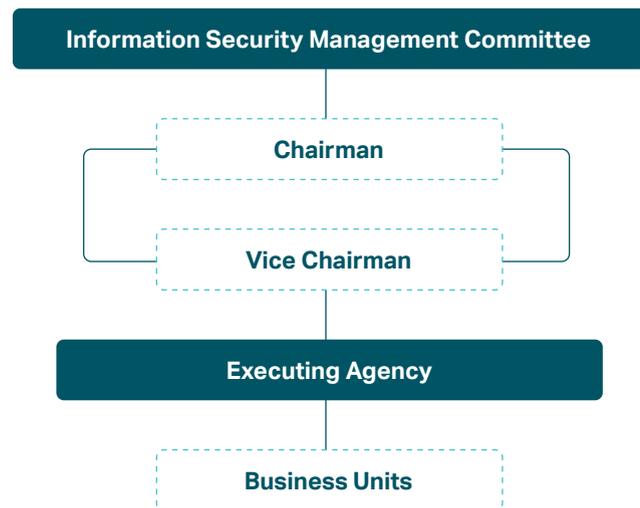
suppliers training were organized.

Data and Information Security

► Governance

The Company is committed to providing secure and trustworthy products and services and protecting the privacy of our customers and employees. To ensure the effectiveness of the governance of our information security, we have established an Information Security Management Committee which consists of the Chairman, the Vice Chairman, the Office of the Information Security Management Committee, and the Information Security Working Group, and is responsible for the ongoing oversight and management of information security:

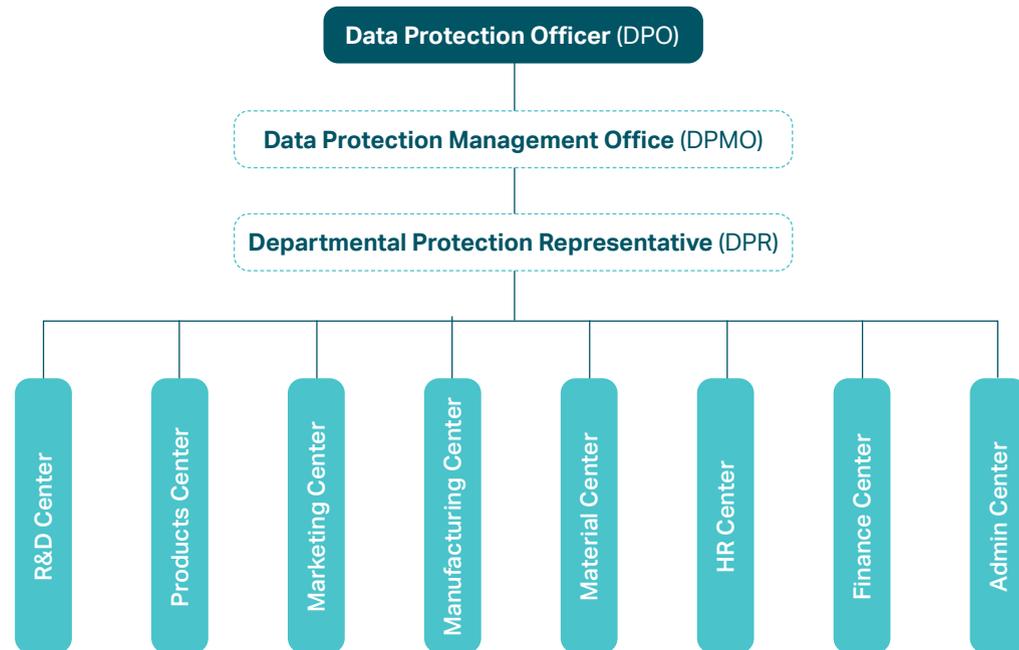
TP-Link Information Security Management Framework



Management level	Responsible person	Responsibilities
Chairman	President (The highest decision maker of the information security management system)	Mainly responsible for the approval and release of the Company's information security management manual, management review of the information security management system, appointment of the management representative of the Company's information security management system, as well as decision-making and approval of major matters and changes related to information security management.
Vice Chairman	Management representative	Mainly responsible for identifying acceptable risks and risk levels, supporting and driving the implementation of information security in the Company, reviewing the handling of major information security incidents, and approving program documentation for the information security management system.
Executing Agency	The Corporate System Division is responsible for this office	Mainly in charge of organizing the establishment, implementation, maintenance and improvement of the information security management system, ensuring the effective operation of the information security system, preparing the Company's information security management documents, organizing the Company's internal review and initiating the management review of the information security management system, as well as reporting to the management representative on the performance of the operation of the information security system and any needs for improvement.
Business Units	Information security heads of each department	Mainly responsible for protecting the security of information assets managed and utilized by his/her department, identifying information assets and conducting risk assessments, and instructing and requiring employees in his/her department to comply with information security policies.

The Company launched a project in April 2022 to build a data compliance system benchmarked against the EU's *General Data Protection Regulation* (GDPR). At present, the Company has established a complete personal data protection management framework.

TP-Link Personal Data Protection Management Framework



In 2023, the Company established and implemented the S-SDLC (Secure Software Development Life cycle) process to incorporate security and privacy protection into the software development process. During the pre-release of the product, the Company started with requirements analysis to precisely define roles and permissions, performed threat modeling, implemented API authentication and authorization, and executed security baseline testing during the testing phase. And after the product is released, the Company continuously monitors and updates security measures, fixes vulnerabilities, and updates the security baseline to ensure the long-term security of the product.

We comply with the information security laws, regulations and management ordinances of the regions in which we operate. We have formulated a series of policies and regulations to ensure the security of personal data and Company information in accordance with the certification requirements of the ISO 27001 information security management system, the ISO 27701 privacy information management system and other relevant systems, as well as the requirements of the information security policies of the global regions in which we operate.

TP-Link Information Security and Privacy Protection Management Measures

Content	Measures
Protection and management of personal privacy	<ul style="list-style-type: none"> The Company has established internal systems such as the <i>Personal Data Security Management Procedures</i> and the <i>Internal Information Protection Regulations</i> to ensure that personal information is used according to laws and regulations, and to protect the security of personal information. The Company ensures user privacy by publicly issuing the <i>Privacy Policy</i> on the official website and by publicly providing additional data protection for specific countries and/or regions.
Prevention and management of security incidents	<ul style="list-style-type: none"> The Company has established internal systems such as the <i>Information Security Incident Management Procedures</i>, <i>Information Security Risk Assessment Procedures</i>, and <i>Information Security Continuity Management Procedures</i>, to improve the process of security incident management, and to conduct regular assessments of information security risks.
Global information security and data management requirements	<ul style="list-style-type: none"> The Company has established the <i>GDPR Cross-Border Data Transfer Management Code</i> internally to clarify and standardize the GDPR cross-border data transfer management requirements. The purpose is to ensure that the Company strictly adheres to data protection standards when handling personal data of overseas citizens.

➤ **Strategy**

As a major player in the global networking and smart home market, TP-Link is committed to providing users with secure and stable products and services, and strictly protecting the privacy and security of their data. The Company has integrated information security management into the key areas and business decisions to respond effectively to the potential risks and opportunities brought by information security.

Key areas	Main measures
 <p>Product and service security</p>	<ul style="list-style-type: none"> • Full development life cycle security: Implement default and design protections, perform source code audits and security scans, and establish internal security baselines. • Vulnerability management: Set up a product security emergency response team and ensure that the handling and disclosure of vulnerabilities comply with management norms such as ISO/IEC 30111 and ISO/IEC 29147. • Data compliance: Conduct compliance screening and integration of requirements related to information security and communicate the results to the R&D and test personnel for operation and multi-layer test and maintenance as required.
 <p>Cyberspace security</p>	<ul style="list-style-type: none"> • Ensure the security of cyberspace operations through internal authority control, network anomaly detection, encryption and hashing.
 <p>Privacy protection</p>	<ul style="list-style-type: none"> • Policy setting: Set up a privacy policy to clearly and transparently publicize the process of handling personal data. In 2023, the Company established separate privacy policies for five applications and websites. • Compliance assessments: In 2023, the Company conducted over 80 compliance assessments for new functions. • Data subject request response: In 2023, the Company responded to a total of 1,285 data subject requests.

➤ **Risk Management**

The Company identifies and evaluates information security threats and vulnerabilities through regular risk assessments and takes appropriate control measures to mitigate risks.

Potential risks	Risk management measures
<p>Leakage of personal and corporate information</p>	<p>Internal review: Review employee account permissions for internal operation and maintenance systems quarterly to follow the principle of least privilege; Customers' privacy is protected by the fact that employees do not have access to customers' personal data.</p> <p>Internal audit: Regularly audit the IT operation and maintenance bastion host usage of each business department quarterly to ensure the security of data use.</p> <p>Supplier management: Put appropriate supplier management measures in place, including assessing suppliers' security capabilities, signing contracts and monitoring their security controls.</p>
<p>Information security affects the stability of Company operations</p>	<p>Terminal data control: For the terminal management solutions of TPS/TPC and other companies, use Microsoft's terminal control product Intune for terminal device and application management, and enable Multi-Factor Authentication (MFA) for two-factor authentication; use Microsoft's terminal data leakage prevention product Endpoint DLP to effect terminal data leakage prevention policies and control data leakage prevention.</p> <p>Advanced email protection: Use Microsoft's advanced email protection product, Microsoft Defender for Office 365, to enhance spam filtering capabilities, initiate email training topics, and conduct regular phishing email drills.</p> <p>Deployment of intranet intrusion detection system (IDS) + intranet web application firewall (WAF) + honeypot: Deploy Intranet security awareness and defense systems using snort, Chaitin SafeLine, and Hfish, an open source interactive honeypot.</p> <p>Deployment of vulnerability scanning system: Use Chaitin X-Ray vulnerability scanning system to conduct penetration testing on the Company's system services.</p>
<p>Privacy or product security vulnerabilities result in brand compromise</p>	<p>Privacy and security vulnerability reporting management: The Company provides the public reporting email address to encourage customers, suppliers, independent researchers, security organizations, etc. to take the initiative to report any potential vulnerabilities to the security team. The Company also takes the initiative to obtain TP-Link product vulnerability information from the community, vulnerability library, and all kinds of security websites, to know the vulnerabilities discovered instantly.</p>

The Company carries out information security-related training for employees of different subsidiaries to continuously improve their information security awareness and capabilities.

Key Information Security Training Programs of TP-Link in 2023



New employee onboarding information security training

For new school/social recruitment employees, the Company carried out online or offline information security training based on business needs.



Phishing email training

For employees in the countries including the United States and Singapore, the Company conducted online anti-phishing email training and pushed the training content via email to all employees who have the right to send and receive external emails.



Server security training

The Company carried out online training for the Company's server administrators, covered a total of 41 participants in 2023.



Information security publicity and implementation

The Company conducted monthly information security publicity and implementation training (such as personal information protection and telecom network fraud) for all employees of the Company. The Company provided GDPR-related training for German employees.

Case

The Company Conducts Phishing Drills

To test the ability and vigilance of employees within the Company to identify phishing emails, in 2023, the Company conducted simulations to send phishing emails to evaluate employees' reactions and behaviors when faced with similar phishing attacks. TP-Link intended to enhance employees' cyber security awareness and relevant training. Phishing email drills can also help the Company identify possible security vulnerabilities and formulate corresponding security policies and emergency response measures to improve the overall cyber security of the Company, with a total attendance of 4,503.

Case

Email Sending Permission Granting Training

Phishing emails are one of the common hacker attacks on the network targeting corporate employees. Random clicks may lead to the leakage of corporate sensitive information and even lead to the employee's computer being controlled by hackers in serious cases. In 2023, to boost the awareness of email security, the Company carried out training and quizzes for the email sending permission granting for the employees who activated email reception and sending, to improve the identification and prevention methods of these employees for phishing and baiting emails. The total attendance of training reached 677, and the passing rate of the training assessment was 100%.

Case

Server Administrator Training

The server administrator training course aims to train employees to become server administrators with professional knowledge and skills, covering our server management process as well as the basics of server management and security norms. The course is intended to allow colleagues responsible for server management to quickly understand our server management norms and manage servers in a safe and compliant manner. In 2023, the total attendance of server administrator training reached 41. The passing rate of the training assessment was 100%.

Metrics and Targets

As of June 2024, TPC, Shenzhen R&D Center and Shenzhen Manufacturing Center have obtained ISO 27001 information security management system certification; TPC has obtained ISO 27701 privacy security management system certification.

Goals and Progress of TP-Link Information Security and Privacy Protection

Management indicators and goals	Progress in 2023
0 major incidents of information security	Completed



In 2023, the total attendance of information security training for employees was

5,383



Innovation-driven and Property Rights-based Approach

We adhere to innovation-driven development, and are committed to offering better solutions to users while promoting the healthy and orderly development of the industry. In terms of patent application and management, according to the *Patent Management Measures*, after receiving a patent proposal, the Intellectual Property Rights (IPR) team will conduct a search and form feedback. The patent reviewer will comprehensively evaluate the proposal in multiple perspectives and grade it to clarify the value of the patent, and implement different application strategies based on the patent grade. The Company has developed a talent award management process, and at the beginning of each year, each department prepares a technological breakthrough plan to clarify directions and goals, stimulate innovation, and promote technological progress.

TP-Link consistently maintains an open and cooperative attitude, actively participating in and promoting the development of association standards, committed to setting benchmarks within the industry and leading technological innovation and development. In terms of talent and team building, the Company attracts scientific research talents such as reserve cadres and experts through school recruitment and social recruitment, and incentivizes R&D talents through a number of measures including reimbursement of certification fees, patent rewards, and grading rules to fuel employees to innovate.

Case Actively Participating in Wi-Fi Standard Development

Starting from November 2023, the Company's Wi-Fi Protocol Standards Division has continued to participate in meetings and technical discussions of the two major Wi-Fi standards organizations, IEEE 802.11 and WFA. IEEE 802.11 is the organization that develops the main technical standards for Wi-Fi, and it has several Task Groups (TGs), which are driving the technical standardization in different aspects. The Company has mainly participated in technical discussions such as TGbe (Wi-Fi 7), TGbn (Wi-Fi8), TGbp (AMP low power consumption technology), TGbf (sensing technology), and TGbi (privacy and security technology). TP-Link regularly participates in the bimonthly 802 conference and weekly TG online meetings, prepares multiple technical proposals, and actively promotes the development and improvement of Wi-Fi standard protocols.

The Company has actively participated in the discussions and online meetings of several technical working groups in WFA, such as Wi-Fi 7 TTG (Wi-Fi 7 certification), Multi-AP TTG (Easymesh technology), Security TTG (cyber security technology), and AFC TTG (power control in 6GHz band). TP-Link participated in WFA Conference held in Singapore in February 2024 in an offline manner, submitting a number of technical proposals and contributing to the evolution and practical application of the technology.

Case First Debuting Wi-Fi 7 Certified Products

Wi-Fi 7 technology results in significant improvements in peak and latency performance, and brings new challenges for inter-device compatibility. In 2023, TP-Link further expanded the Wi-Fi product line, first debuting new products to support the Wi-Fi 7 standard. In January 2024, the Company's products, Deco BE85 and Deco BE800, became the first products in the world to obtain Wi-Fi 7 certification, taking the lead in the industry. As of June 2024, the Company has launched Deco BE85, Deco BE75, Deco BE25, RE800BE, RE655BE, Archer BE805, Archer BE700 and other Wi-Fi 7 products with different specifications and functional forms, which have greatly enriched the Wi-Fi 7 network solutions. The Company has engaged in energy consumption optimization and Mesh experience of Wi-Fi 7 products, and debuted the ECO function, evidencing the active practice of the sustainability concept.



Compared with 2022, the number of patent applications in 2023 increased by **8.76%**, and the number of new authorized patents increased by **32.83%**.

By the end of 2023, the Company has applied for **646** patents and boasted **348** authorized patents.

Quality-based and Service-oriented

▶ Product Quality Assurance

TP-Link is committed to providing customers with high-quality products, continuously implementing product quality management and improving service quality. The Company fully implements the quality management system in the whole process from product project approval, R&D and design, testing and validation, and factory manufacturing to sales and customer service. TP-Link has established a perfect product quality evaluation and improvement mechanism to quickly understand customer needs and product conditions, identify common problems, and formulate corresponding improvement measures to enhance the quality of products.

The Company has internally formulated the *Product Recall Control Procedures*. When there may be batches of unqualified products (including potential safety hazards) after delivery, we will promptly notify relevant parties of relevant information through preliminary judgment, abnormality analysis, formulation of recall plan, analysis and treatment of recalled products, etc. We will recall and quickly control the relevant products to avoid or reduce the impact of hazards.

The Company conducts training on products from time to time based on local businesses and customer needs, including product knowledge training, product seminars, customer training, etc.



TP-Link Product Quality Management Processes and Initiatives

During product R&D: We implement the horizontal evaluation of competitive products, system testing, etc., to assess the product's market experience in an all-round way, and to provide an important basis for product production decision-making.

During product production: The Quality Department of the factory carries out comprehensive design verification tests and comprehensively tests every product produced in the production line to ensure that all mass-produced products can reach the strict quality control goals.

After the product is launched: We closely monitor customer evaluations of the product, identify key quality weaknesses, quickly resolve quality matters, and continuously improve product quality and user experience.

South Korea Subsidiary

In November 2023, TP-Link held a VIGI product seminar at Yongsan Electronics Land Hall. This seminar aimed to communication with TP-Link partners through knowledge sharing and continuous innovation for long-term growth and customer satisfaction.



UK Subsidiary

From October to November 2023, TP-Link invited key B2B customers to the UK office for Omada Certified Network Administrator (OCNA) training and on-site exams, and issued 16 OCNA certificates.



➤ **The quality related training in 2023:**

The Shenzhen R&D Center trained

21,039 participants

for a total of

39,197 hours

The Shenzhen Manufacturing Center trained

2,358 participants

for a total of

385,533 hours

The Dongguan Manufacturing Center trained

681 participants

for a total of

42,563 hours

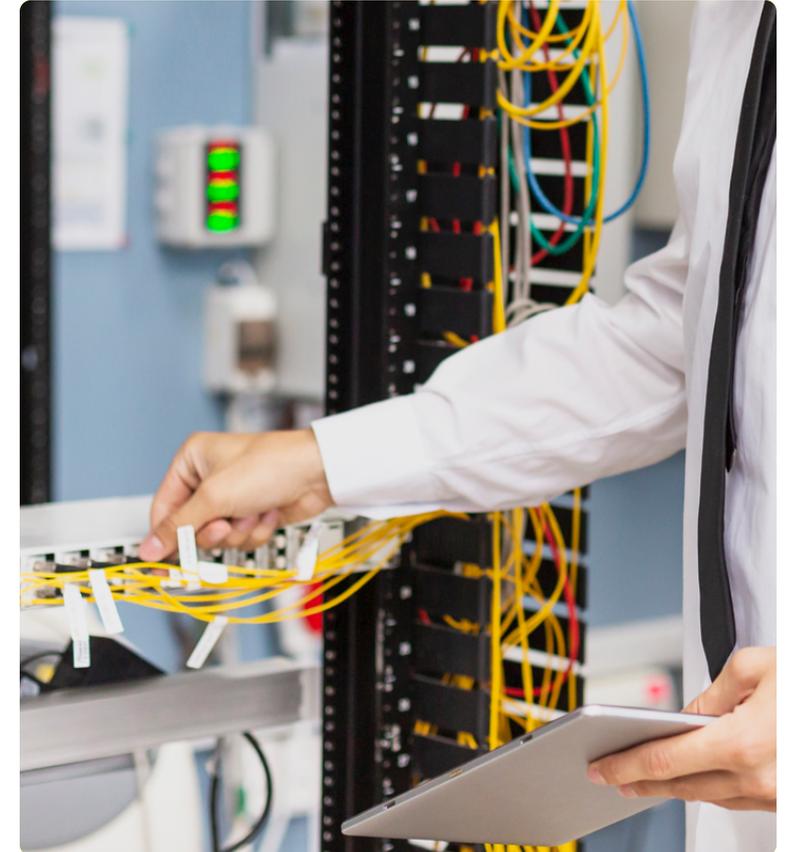
TP-Link Quality System Certification Goals and Performance

Certification type	Goal of certification coverage by 2025	Current status of achievement (as of the end of June 2024)
ISO 9001 quality management system certification	100%	100%*

*Coverage of ISO 9001 Quality Management System Certification for Manufacturing Centers

TP-Link Product Quality Management Goals and Performance

Indicator	Goal for 2023	Progress in 2023
Final quality assurance (FQA) pass rate	99.1%	99.26%



Customer Service Experience

To improve the efficiency of quality control and enhance customer trust and satisfaction, TP-Link has established a quality management IT platform to support the whole process and the whole field. The Company has adopted a three-line processing mechanism from basic technical support and professional technical support to the product development team tier by tier. TP-Link strives to deal with the problems and opinions proposed by customers in a timely and effective manner.

Customer Service Handling Mechanism

Self-service Information Support (Level 0)

FAQs, videos, software upgrades, and other materials are available through the Support website for users to refer to for self-help solutions.



Basic Technical Support (Level 1)

Consulting about product features is answered via phone, email, Chat, and community channels, to guide product installation, configuration, and troubleshooting, and provide warranty services.



Specialized Technical Support (Level 2)

For complex/difficult problems that cannot be solved by basic technical support, in-depth troubleshooting and front-end and back-end analysis are conducted remotely to provide solutions.



Product R&D Team (Level 3)

For complex/difficult problems with serious impact, cooperation with specialized technical support is carried out to conduct remote diagnosis, repair software problems, and correct hardware defects.

TP-Link has built an efficient customer service system, aiming to ensure that customers receive a high-quality and efficient service experience throughout the product life cycle through multiple links and processes.

Customer Service System



Pre-sales services

Before customers purchase products, stimulate customers' purchase intention through market research, customer needs assessment, product recommendation, etc., and provide professional product consulting and solution customization services.



In-sales services

Maintain close communication with customers and assist them with on-site or remote support for installation and deployment, and function configuration.



After-sales services

After the product is sold, the technical support team connects with the enterprise or retail customers through technical support, product software maintenance, customer feedback collection and processing, etc. Technical support team directly communicates with the customer through email and Chat to ensure that the customer can use the product smoothly, and solve problems encountered by the customer in a timely manner.

The Company has formulated the *Customer Complaint Handling Procedure* internally. After the factory receives the customer complaints, TP-Link ensures that the customer complaints can be handled in a timely and effective manner through quick response, analysis, improvement, reply and follow-up. TP-Link will take the initiative to follow up on customer usage. The Company will closely track customers' evaluations of products on e-commerce platforms after the products are marketed, provide early warning on abnormal data based on cloud data, and then actively follow up on potential problem elimination.

In terms of customer communication channels, the Company harnesses a variety of service channels and tools, including customer service hotline, online chat, email support, APP service portal boards, and social media, to provide multiple types of services to users at home and abroad, such as installation and configuration guidance, product performance optimization, product troubleshooting, and return merchandise authorization (RMA). The Company collects customer feedback through market research, customer interviews, online evaluations and other means to keep abreast of customer needs and opinions and improve customer experience.

The Company has established the [TP-Link Global Community](#), which consists of three sub-communities, namely Home Network, Smart Home, and Business, with dedicated personnel responding to customers' feedback and releasing official guidance materials, guiding customers to use the products correctly and actively providing solutions to problems proposed by customers. If a customer complains about untimely or unsatisfactory service in public through the community, the Company will internally check the details of the customer's feedback case in time and confirm it via Outlook e-mails or forward it to the subsidiary to take over and follow up.

In 2023, the Company optimized and improved the customer service for the community:



Specially-assigned persons were arranged for three communities, with same-day responses guaranteed on weekdays. The response rate of community users' postings increased from 86% in 2022 to 92% in 2023.



Internal specifications can be used for solutions to problems proposed by the community. The community-based "solution" marking rate increased to 18.5% in 2023.



Optimization of community systems was actively promoted to enhance the user experience of community access. A total of 213,436 new users registered across all community sites in 2023, a 55% increase compared to 2022.

In terms of customer service team building, the Company has a specialized customer service team, including a pre-sales technical team, an after-sales technical team, and a customer service team. They each have their own duties and work together to provide customers with all-round services. Moreover, the Company also continuously strengthens the training and management of service personnel, including service norms and risk control, principles of responding to complaint cases and handling skills, and call center service satisfaction, to improve the professionalism and service awareness of the staff, and to ensure that service personnel can provide customers with a better quality service experience.

TP-Link's Measures to Optimize Service Quality of Customer Service Teams in 2023

Object	Measure
For home networking, smart home and business networking products	Sub-product line services provide customers with a more efficient service experience
For return merchandise authorization (RMA)	Specialized services from telephone service representatives
For staff capacity building	Service quality improvement training for staff on service norms and risk control, service satisfaction control, and invitation for evaluation



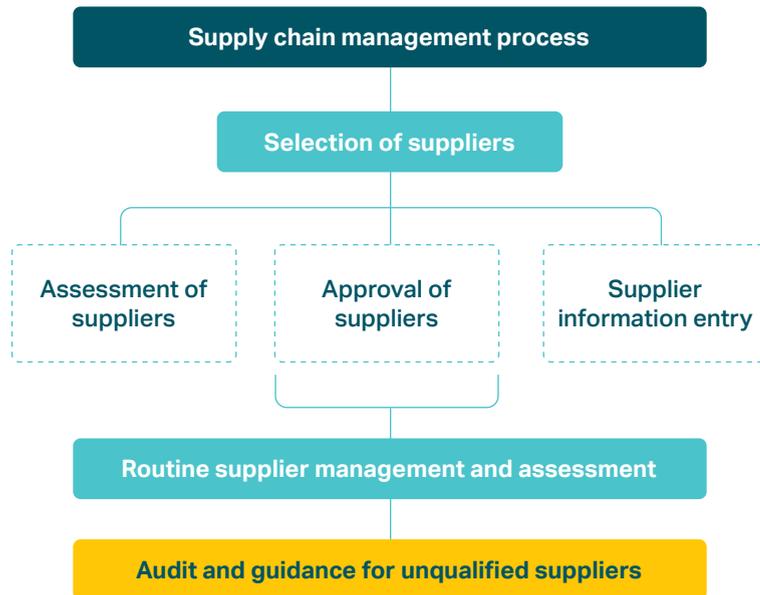
Customer service satisfaction for technical support improved to **87.5%** in 2023 from **82.3%** in 2022. Improved third-party brand score at Trustpilot to **3.7** in 2023 and continues to improve. Service favorable ratings at Amazon from **695** in 2022 to **2,103** in 2023.

Compliance and Win-Win Cooperation

Supplier Management

The Company complies with domestic and international laws and regulations related to procurement, raw materials, and supplier management, standardizes the management requirements for suppliers, and establishes corresponding management processes by formulating system documents such as *Supplier Management Standards*, *Procurement Management Standards*, and *Management Procedures for Supplier Social Responsibility*.

Supplier Management Process



New Supplier Access and Assessment

TP-Link screens qualified suppliers based on a comprehensive survey of suppliers, and continuously assesses and evaluates suppliers based on the same criteria to ensure the stability and sustainability of the supply chain. "Quality, technology, price, and delivery" are the basic elements of supplier access and evaluation.

Inspection Process of Incoming Quality Control (IQC)



In addition, the Company's explicit system requirements for suppliers' business ethics and integrity compliance management cover a wide range of aspects such as employment, export, integrity and honest, product change notification (PCN) management. In addition, the Company explicitly incorporates supplier compliance risk provisions into contracts, and embeds field assessment requirements into contracts, covering supplier behavioral audit commitments and questionnaire surveys, to ensure compliance and transparency throughout the cooperation.

To address the environmental and social risks in the supply chain, the Company investigates, evaluates, and scores the performance of suppliers in the aspects of the environment, safety, labor rights and interests guarantee, and hazardous substances management through the *Assessment Form of Supplier Social Responsibility*, and promotes suppliers to achieve ISO 14001 certification. If there are any unqualified items, the procurement team will coach the suppliers to improve and meet the standards before they are allowed to access for subsequent cooperation.

The Company requires suppliers who are granted access to sign the Code of Conduct for Suppliers to ensure that they understand and comply with TP-Link's basic requirements for sustainability and that the requirements on environmental and social responsibility shall also be included in the procurement contract. The *Collaboration Agreement*, the *Letter of Commitment to Code of Conduct for Suppliers*, the *Integrity Agreement*, and the *Confidentiality Agreement* shall be signed to bind and guarantee the suppliers to comply with the environmental and social responsibility requirements.

The Company continuously examines and evaluates the suppliers through a combination of regular and irregular reviews, and the review methods include e-mails, questionnaires, and on-site surveys. The Company's review and assessment adhere to the principles of fairness and objectivity. After the assessment, we will provide timely feedback to suppliers and provide support to help them improve defects and jointly reduce potential risks.

Stabilization of Supply Chain

The Company has built an efficient, flexible, and quality-controlled supply system by assessing the risk of sole-sourcing and seeking alternative sources, conducting regular supply and demand analyses to accurately forecast and reduce inventory backlogs, regularly reviewing inventories and supplier capabilities, refreshing demand forecasts to guide supplier scheduling and preparation, implementing a supplier access assessment and continuous score elimination mechanism, strengthening on-site audits and cross-departmental communication, promoting automation and localized sourcing, and applying new process materials, as well as material consolidation and process standardization.

Supplier training

TP-Link has established an equal and mutually beneficial partnership with the suppliers. Based on sincerity and trustworthiness, we maintain open communication with our suppliers, provide timely feedback on cooperation issues, and make suggestions for improvement. In addition, the Company adopts a proactive management strategy to provide on-site guidance and training to suppliers, which includes, but is not limited to, guidance and training on quality, technology, business ethics development, and sustainability governance methods and strategies.

Green Procurement

Based on the *Environmental Health Management Manual*, *Sustainable Procurement Policy*, *Social Responsibility Management Manual*, and related systems and norms, the Company conveys the concepts, policies, objectives, and requirements of sustainability governance to suppliers. The Company combines the economic principle of high quality and good price with the responsibility principle of

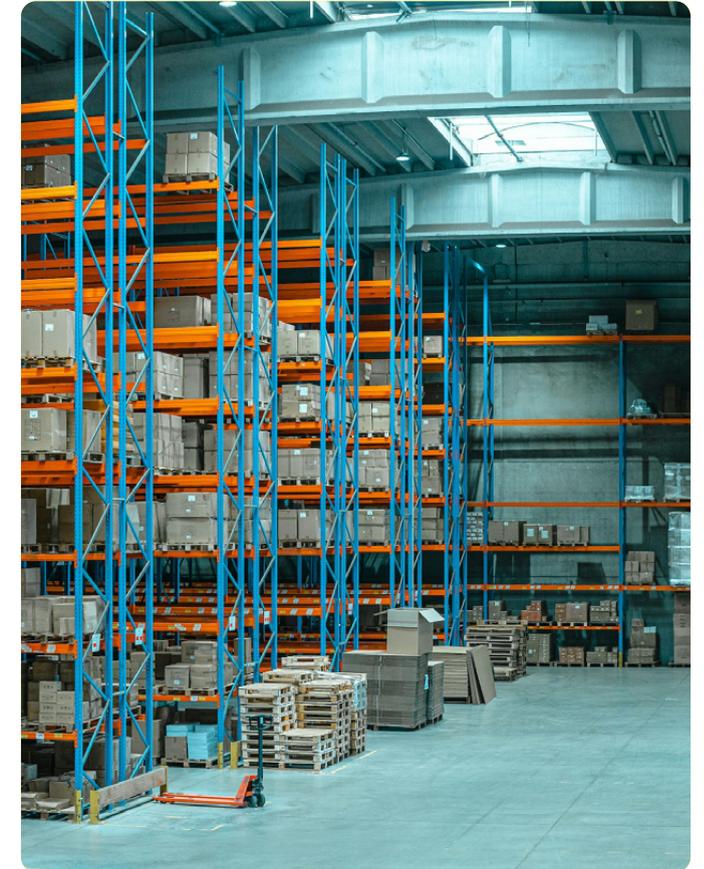
sustainability, complies with RoHS and REACH compliance standards, and promotes sustainable procurement under the policy of “green procurement and responsible procurement” to build a sustainable supply chain system.

Case Green Raw Material Procurement

All raw materials used by TP-Link comply with the requirements of environmental protection laws and regulations as well as Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH). Suppliers are required to provide Restriction of the use of Certain Hazardous Substance (RoHS) compliant reports and sign declarations of conformity regarding hazardous substances.

Case Use of Environmentally Friendly Printing Inks

In 2023, the color boxes of all TP-Link products were produced using environmentally friendly printing inks with lower mineral content (the content of MOAH—mineral oil aromatic hydrocarbons composed of 1-7 aromatic rings—in the ink does not exceed 10,000 mg/kg). In 2023, the Shenzhen Manufacturing Center used 8.3 million color boxes per month for the products, thereby reducing harm to the environment and human health.



4.46%

proportion of suppliers conducted social responsibility questionnaire increased compared to 2022.

85.1%

suppliers signed the Code of Conduct.

591

supplier training were organized.

► Sustainable Procurement and Conflict Minerals

The Company is committed to enhancing the conflict minerals management capabilities and actively complying with conflict minerals-related laws and regulations and customer requirements. The Company has formulated the *Conflict Minerals Policy*, which clearly defines TP-Link's zero-tolerance stance on conflict minerals and stipulates the principles of cooperation and allocation of responsibilities with suppliers, emphasizing the importance of complying with relevant laws, regulations, and international guidelines to ensure the sustainability and transparency of the supply chain.

To effectively manage and control the procurement and use of conflict minerals, the Company has developed the *Management Procedure for Conflict Minerals*. The Procedure establishes a due diligence program to ensure that we purchase raw materials only from suppliers that meet compliance and ethical standards. In accordance with the Procedure, the Company's Procurement Department annually defines the survey scope of suppliers, distributes CMRT (Conflict Minerals Reporting Template) questionnaires to all suppliers that may be involved in conflict minerals risks, and rigorously reviews the results of the surveys collected.

By the end of 2023, TP-Link has

323 suppliers

involved in the usage of metal including tin, gold, tantalum, tungsten, cobalt.

A total of

299 CMRT questionnaires

have been successfully collected, with a response rate of

92.57%

which is in line with the expected target.

In the supply chain survey, TP-Link's upstream value chain includes a total of

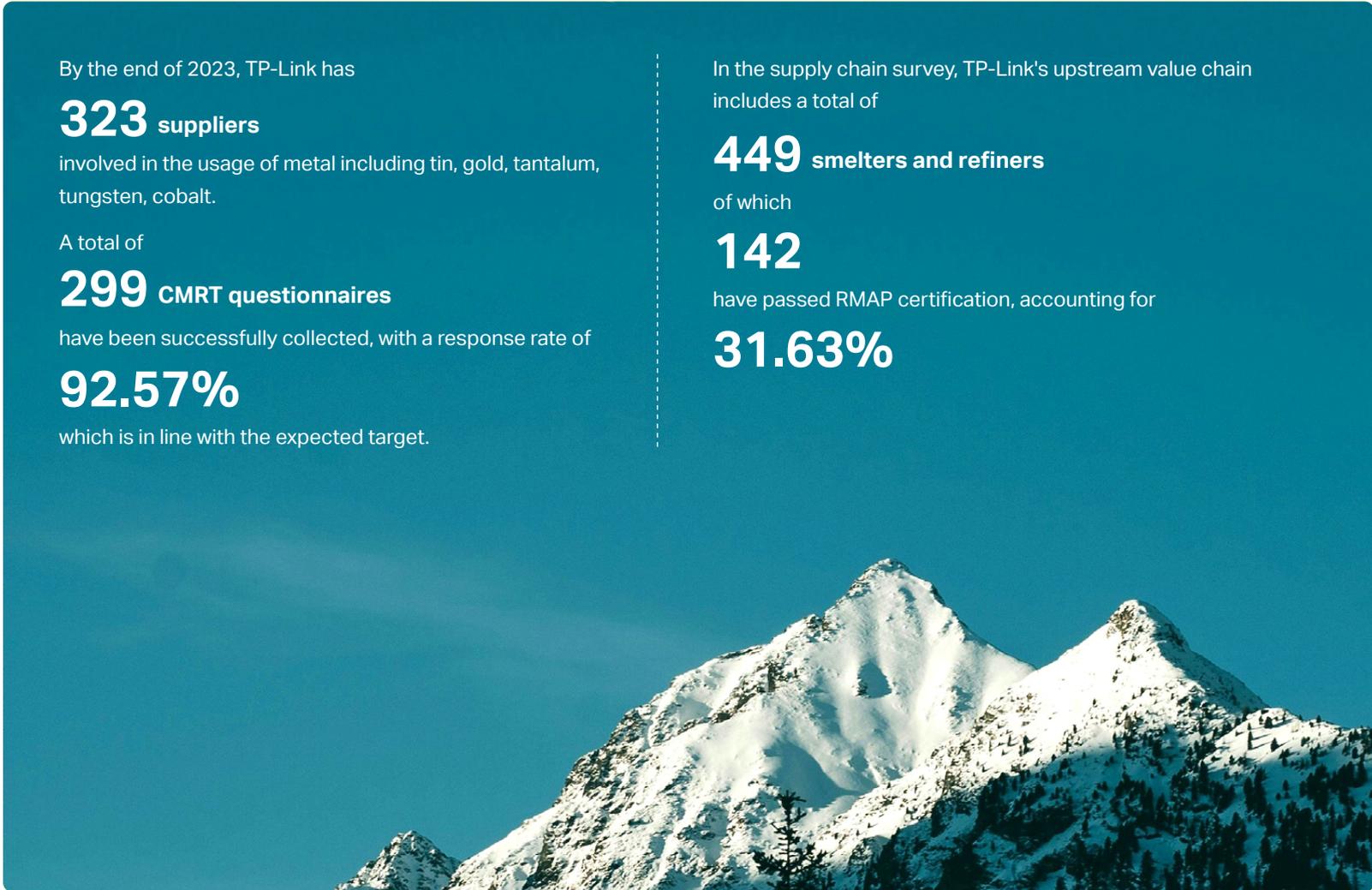
449 smelters and refiners

of which

142

have passed RMAP certification, accounting for

31.63%



04

Caring for Employees for a Harmonious Community

Material Topics

- ▶ Occupational health and safety
- ▶ Training and career development
- ▶ Employees' rights, benefits, and welfare
- ▶ Employment compliance, equality and inclusion
- ▶ Community relations and philanthropy



Highlights >>>



100%

coverage of employee performance and career development assessment.



100%

social insurance coverage for manufacturing center employees.



0

incidents of human rights violations.



0

incidents of child labor or underage employees.



100%

coverage of employee human rights training.



100%

coverage of personnel compliance recruitment training.

Health and Safety Work

TP-Link adheres to the concept of "Life First, Safety First" and complies with the laws, regulations, and management ordinances of the places where TP-Link operates, to ensure the safety, compliance, and sustainability of the Company's operation activities.

Through the establishment of a sound safety management system, TP-Link is committed to creating a safe and healthy working environment for the employees, effectively preventing and controlling all kinds of safety accidents and occupational diseases, safeguarding employees' rights and interests in life and health, and promoting the harmonious progress of the enterprise and the society.

➤ Governance

TP-Link upholds a high sense of responsibility for the management of occupational health and safety, incorporating it into the core processes of the Company's governance system, and ensuring the effective implementation of occupational health and safety standards through the construction of systematic and standardized control mechanisms and operating procedures.

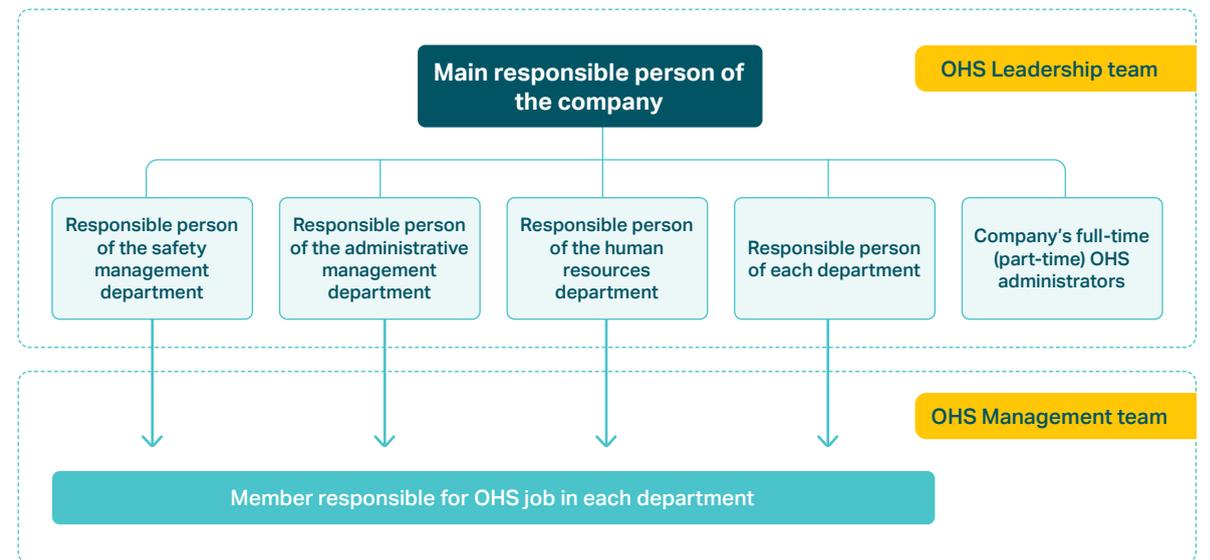
The Company has formulated and implemented more than 30 management systems, including *Regulations on Health and Safety Management*, the *Occupational Health Archives Management System*, the *Measures for Management of Occupational Disease Prevention*, the *Labor Protection Articles Management System*, the *Hazardous Operation Approval System*, and the *Hazard Identification and Assessment Control Procedure*, which cover several key aspects, such as prevention of occupational diseases, health monitoring, safe operation, and emergency response, and form an all-around and multi-level management system.

The Company is committed to improving the level of occupational health and safety (OHS) management, strictly following the ISO 45001 international standard, and constructing a comprehensive coverage of OHS management organization structure. Through this initiative, the Company further improves and strengthens the OHS management system to ensure the health and safety of the working environment and provide more solid guarantees for employees.

TP-Link has set up an OHS leadership and management team. The OHS leadership team is responsible for coordinating the establishment of the occupational health and safety management system of the Company, providing resources, assigning responsibilities, and guiding the implementation of specific tasks. The OHS management team conducts the occupational health and safety management work in accordance with relevant

national laws and regulations, and is responsible for organizing, coordinating, supervising, and implementing the occupational health and safety policies of the Company.

Organizational Structure of TP-Link Occupational Health and Safety Management



In terms of guaranteed work safety, TP-Link has constructed a perfect work safety emergency organization system and emergency plan to ensure that the initial rescue actions can be activated quickly and carried out efficiently in the event of a safety accident. In addition, the Company realizes a smooth and orderly evacuation process to minimize the possibility of accidents and their impacts, and safeguard the operation of the Company and the safety of employees.

► **Strategy**

To ensure that our occupational health and safety objectives are met and our strategies are implemented, we continuously improve our occupational health and safety management through a series of management measures.

Work Safety Emergency Response Organization System



To strengthen work safety management, TP-Link has formulated an exhaustive Work Safety Emergency Response Classification Scale, clearly delineating different classes of emergencies and confirming the response conditions and specific countermeasures corresponding to each class one by one, to ensure the safety and stability of the Company's operation. In addition, the Company organizes safety emergency drills on a regular or irregular basis to effectively enhance employees' knowledge of work safety and strengthen their ability to respond to emergencies, to effectively safeguard the lives and properties of all employees.

Work Safety Emergency Response Classification Scale

Response level	Response conditions	Corresponding measures
Workshop level	Accident hazards and impacts are confined to a single area or position and can be handled without the allocation for company resources.	The Company shall start the on-site disposal plan, organize and report the emergency disposal by workshop, and be ready to expand the emergency response.
Company level	Accident hazards and impacts are more than a single area, but still limited to the company's scope, and can be dealt with by mobilizing the Company's internal resources.	The Company shall start the comprehensive emergency response plan, immediately organize emergency disposal, report to the regulatory authorities as appropriate, and be ready to expand the emergency response.
Societal level	Accident hazards and impacts exceed the handling scope of the Company and require the local government to coordinate social resources to dispose of the accident.	The Company shall start the comprehensive emergency response plan, carry out prior disposal, and report to the local government to request social emergency response (rescue) beyond the Company's capabilities. After the intervention of the local authorities, the Company shall obey the unified command.



TP-Link Occupational Health and Safety Management Measures

- Routine inspections are conducted to identify and prevent occupational health and safety hazards in a timely manner.
- Through regular troubleshooting and review of factors and links affecting health and safety, problems in the management system are identified, and preventive and corrective measures are formulated and implemented to continuously improve the management system.
- The effectiveness of the system is evaluated through regular management reviews.

Case Safety Training of TPS

TPS hold different safety training topics each month, including Fire Safety Training, Abusive Conduct Training, Back Safety Training and so on. Each training was conducted in a classroom style, in the breakroom, where we had a safety trainer conduct a presentation to employees in both languages, English and Spanish. Attendance reaches 90-100 people.



Training courseware

Case Emergency Evacuation and Fire-fighting Training

TP-Link attaches great importance to fire safety and requires all the factories to cooperate with local fire departments to conduct emergency evacuation drills and fire-fighting training every year, to enhance the ability of all employees to evacuate quickly in case of emergency and their awareness of fire fighting.

In 2023, the Shenzhen, Dongguan, and Vietnam Manufacturing Centers conducted two emergency evacuation and fire-fighting drills for all employees, with a total of more than 12,000 employee participants. The drill training process includes "planning and division of labor for the drill process, emergency evacuation drills, fire extinguishing practical operations, and explanation of various safety precautions".



Emergency evacuation and fire-fighting training

Case Training for Chemical Leakage Response Exercise in 2023

The Company attaches great importance to the health and safety of employees and requires all of the factories to conduct chemical leakage response drill training twice a year. The training is for personnel in positions that are exposed to chemicals.

In July 2023, the Dongguan Manufacturing Center organized a chemical leakage response training drill. The training was conducted in the form of "theoretical lectures + practical exercises" and covered 37 people, including warehousemen, production line material coordinator, and chemical usage and management personnel in the manufacturing workshop.



Chemical leakage response training drill

In November 2023, the Shenzhen Manufacturing Center organized a chemical leakage response training drill. The training was conducted in the form of "theoretical lectures + practical exercises" and covered 25 people, including warehousemen, production line material coordinator, and chemical usage and management personnel in the manufacturing workshop.



Chemical leakage response training drill

➤ **Risk Management**

TP-Link takes regular inspection and assessment of occupational disease hazards as an important process and initiative of occupational health and safety risk management, and establishes and implements corresponding measures for identified hazards, to fundamentally reduce the risk of employees' occupational disease incidence.

In 2023, the Company conducted the risk points assessments and hazard factors monitoring for occupational health and safety. The key control hazards are mainly dust, chemical substances, physical factors, and radioactive factors. The Company reduces the risk of occupational disease hazards by installing protective facilities, configuring protective equipment, and conducting employee training and regular monitoring and inspection. In addition, the Company implemented additional safety measures for projects exceeding standard levels.

The Company strictly monitors all key indicators closely related to occupational health and safety, including but not limited to the inspection of occupational hazards and the provision and use of protective measures, safety education and training, as well as the soundness of the emergency response mechanism and the frequency of practical drills. Through data analysis, near-miss identification, and immediate rectification, the Company ensures accurate identification and effective control of potential risks, effectively reducing the occurrence of occupational hazards and safety accidents.

As of the end of the reporting period, the Company has completed occupational health examinations for all personnel in positions involving occupational disease hazards, and no cases of occupational disease have been detected.

TP-Link Occupational Hazards and Protective Measures

Hazardous factors	Occupational disease protection measures	Operating mode	Test result	Proportion of occupational health examination
Organic compounds such as methanol, toluene, ethylbenzene	Local exhaust ventilation (LEV)	Fixed inspection	Pass	100%
Nitrogen oxides, ozone, etc.	Self-contained shielding	Fixed inspection	Pass	100%
Hydrogen chloride and hydrochloric acid, silicon carbide dust	Confined, mechanized	Fixed inspection	Pass	100%
Other dusts	Mechanized, automated	Fixed inspection	Pass	100%
Microwave, laser, ionization, and other radiation	Shielding facilities + interlocking devices + caution lights + emergency shutdown	Fixed inspection	Pass	100%
Power frequency electric field	Shielding cabinet + grounding measures	Tour Inspection	Pass	100%
Noise	Low-noise equipment	Fixed inspection	Pass	100%
High temperature	Reduce work frequency	Mobile inspection	Pass	100%

► **Metrics and Targets**

As of June 2024, the Shenzhen R&D Center, Shenzhen Manufacturing Center, and Vietnam Manufacturing Center have received ISO 45001:2018 occupational health and safety system certification.

In 2023, TP-Link successfully achieved the core safety goal of “rate of fatalities resulting from work-related injuries is zero”, which demonstrates the Company's great attention to employee health and safety and excellent management results.

Goals and Progress of TP-Link Occupational Health and Safety	
Management indicators and goals	Progress in 2023
0% of rate of fatalities resulting from work-related injuries	✓ Completed
100% coverage rate of employee health and safety training of Manufacturing Centers	✓ Completed

Indicators	Shenzhen Manufacturing Centers		Dongguan Manufacturing Centers		Vietnam Manufacturing Centers	
	2022	2023	2022	2023	2022	2023
Number of Training (Times)	352.00	469.00	72.00	61.00	28.00	52.00
Training Hours (Hours)	448.33	657.83	418.83	240.00	25.20	93.60
Number of Participants Trained (Participants)	9,577.00	16,431.00	5,533.00	4,260.00	2,686.00	11,363.00



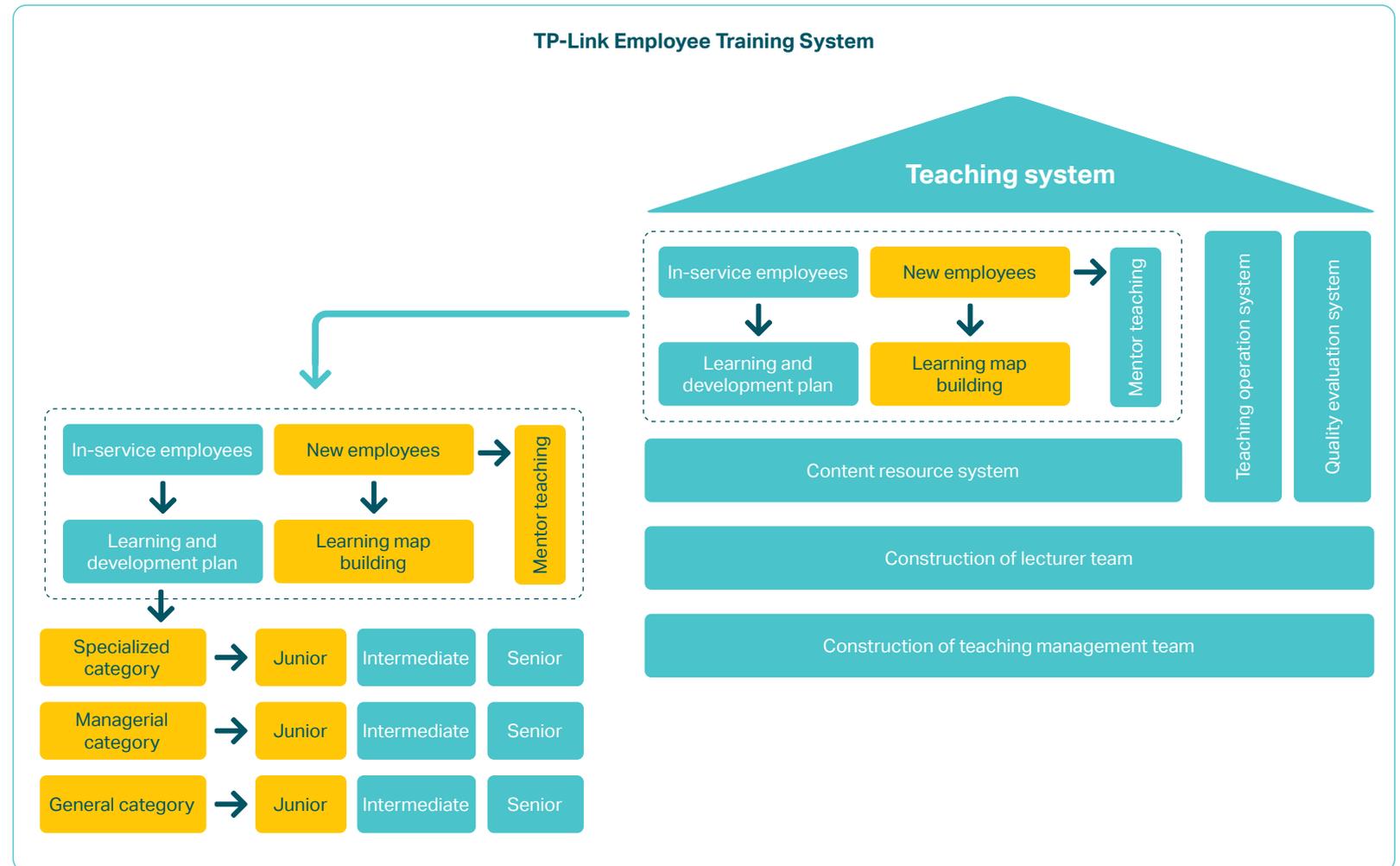
In 2023, a total of 23 work-related injuries occurred at the Company's manufacturing plants and R&D centers, mainly due to injuries sustained by employees during the production process and traffic accidents on their way to and from work. The Company actively conducted employee training and education after the accidents to avoid the recurrence of similar problems. In addition, the Company has applied compensation for work-related injuries in accordance with the relevant provisions of the *Regulations on the Administration of Work-related Injuries* and has expressed TP-Link's care and condolences to the employees' families.

Training to Build a Foundation for a Better Career

Employee Training

With the guideline of “establishing a learning organization and helping employees to comprehensively improve their abilities and qualities”, the Company has carefully constructed a comprehensive teaching system covering “general knowledge education, professional skills, and managerial knowledge”, which realizes the in-depth integration and complementarity of training contents.

The Company's training system covers a wide range of levels, including new employee induction training, skills enhancement for in-service employees, and leadership training for cadres, and strives to achieve comprehensive coverage of training targets. The training forms are flexible and diverse, including not only conventional lessons by lecturers, but also leadership training, practical simulation, case studies, and other diversified teaching methods, aiming to stimulate the enthusiasm of employees to learn through a variety of training content and methods, promote the close integration of knowledge and practice, and ultimately promote the win-win situation of employees' personal growth and the Company's development.



Types of TP-Link Employee Training

Type of training	Training content
Orientation training for workers	<ul style="list-style-type: none"> The training, which all new employees are required to attend, is organized by the Human Resources Department and is conducted every day. The course includes <i>Company Overview and Regulations, Workshop Regulations and 7S, and Counter-terrorism</i>.
Safety training	<ul style="list-style-type: none"> It includes factory-level, workshop-level, and team-level training. Factory-level training is organized by the factory HQ and conducted every day; workshop-level and team-level training is organized by the department.
Daily training	<ul style="list-style-type: none"> HR organizes and summarizes the Annual Training Plan of each department at the end of each year, and the Monthly Training Plan in each month. They also review departmental training materials and follow up on the completion of the monthly training plan of each department.
External training	<ul style="list-style-type: none"> Employees submit applications for external training needs as needed, which are evaluated by the department and submitted to the Human Resources Department. The Human Resources Department will evaluate the corresponding external training organizations to meet the external training needs.

TP-Link focuses on talent cultivation and carries out multi-dimensional training for new employees, personnel at specialist positions, and management cadres. The course system consists of a series of courses in general, professional, and managerial knowledge, and each of them was divided into three levels: junior, intermediate, and senior levels. In addition, TP-Link's internal online learning system, TP-Learning, has more than 1,000 courses available, which enables employees in all office locations to quickly access learning resources.

Type	Key Cases
 <p>General knowledge</p>	<ol style="list-style-type: none"> Freshman camp training program for 2023 fresh graduates: Within one-week, new employees are quickly integrated into the Company through courses and interactive activities on corporate culture, professionalism, and workplace skills, realizing the initial transition from campus to workplace. The training program reached more than 600 employees. Training the Trainer to Train (TTT) training: Lecture skills training for new lecturers in Shenzhen and Chengdu in the R&D category, to promote new lecturers to quickly master the skills of lesson preparation, course opening, effective interaction, powerful ending, and active audience control. The training program covered a total of about 70 new lecturers.
 <p>Specialized knowledge</p>	<ol style="list-style-type: none"> A 4-month training program for new employees in the R&D category: completion of specialized knowledge course training, R&D projects, mentor-led training, and factory internship in 4 months. The training program reached more than 400 employees. Specialized training program for new employees in the sales management category: They learn product knowledge (about 1 month) and then participate in an off-site intensive training program, and the courses include practical operation on store work, customer visits, and merchant outward training.
 <p>Managerial knowledge</p>	<ol style="list-style-type: none"> Management capacity enhancement program for reserve cadres: Middle and senior cadres give lessons on role recognition, task, and performance management, supplemented by follow-up coaching and practical exercises to clarify role positioning and enhance management skills. The focus in 2023 was on Performance Management training.

TP-Link Employment Training Performance

Indicators	Shenzhen Manufacturing Centers		Dongguan Manufacturing Centers		Vietnam Manufacturing Centers	
	2022	2023	2022	2023	2022	2023
Number of Training (Times)	557.00	662.00	172.00	141.00	42.00	60.00
Training Hours (Hours)	752.33	916.33	608.00	199.00	86.00	116.00
Number of Participants Trained (Participants)	14,856.00	16,701.00	9,171.00	5,749.00	—	—

Case Daily Training at Shenzhen Manufacturing Center

The Engineering Department of Shenzhen Manufacturing Center conducts daily skills training for in-service employees to help them broaden their horizons in terms of specialized knowledge. The contents of the courses are tailored to the actual daily work tasks and environment, which can enhance their professionalism and explore and develop their professional talents, helping them to become the backbone of the business department. In 2023, a total of 315 courses were completed in the daily training of the Engineering Department of Shenzhen Manufacturing Center, covering specialized knowledge and professionalism.



Daily training

Case Orientation Training for Workers at Dongguan Manufacturing Center

In 2023, Dongguan Manufacturing Center launched induction training for workers. They regularly updated the training materials and test papers for regular and temporary employees to ensure that new workers can quickly integrate into the Company's culture and familiarize themselves with the Company's history, background, and rules and regulations. In addition, after the training, a written test was organized to assess the effectiveness of the training. In 2023, a total of 4,408 participants were covered by the induction training, with a 100% first pass rate on the written test.



Orientation training

▶ Performance Evaluation and Development

TP-Link attaches importance to the training and management of the talent team and has formulated relevant management systems such as the *Job Promotion System* and *Assessment System for Advanced Workers*, as well as the dual-channel career development mechanism of "specialized + management", which provides employees with both specialized and management development channels. Employees can make choices according to their own development demands and abilities, to enhance their personal abilities in a more clear and focused manner, with the opportunities and flexibility for career growth increased.

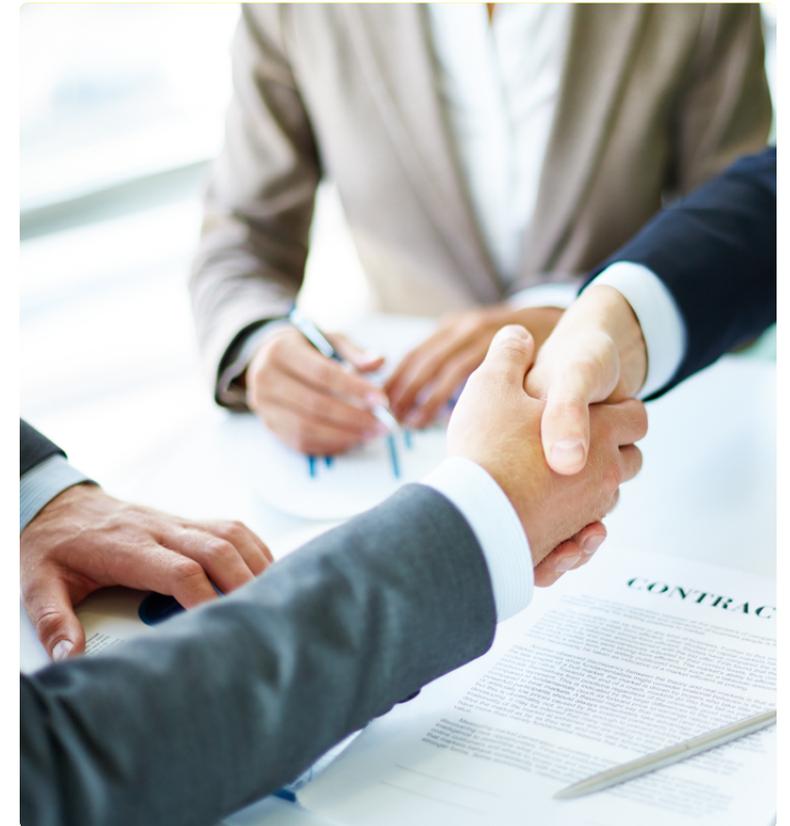
TP-Link encourages all departments to identify, cultivate, and promote outstanding young talents and refuses to promote them according to seniority and length of service. Each department should dare to give important tasks to young people so that young talents can take on more responsibilities and grow rapidly. In addition to promoting young cadres, the Company also strongly supports young cadres in adapting to their positions and changing their roles through management training, mentoring by executives, and regular follow-up interviews.

The Company has set up a *Performance Evaluation System*, implemented quarterly employee performance appraisal, and formulated a

differentiated job performance evaluation form according to the characteristics of each department and position. The assessment process follows the principle of "combining self-assessment and superior evaluation" to ensure the comprehensiveness and fairness of the assessment. The assessment result is an important reference standard for selecting excellent employees. If employees have any objections to the performance assessment results, the complaints can be submitted to the Human Resources Department. The Human Resources Department is responsible for the communication and comprehensive evaluation and ensures that the entire appeal process keeps the employee's private information strictly confidential.

In addition, the Manufacturing Center conducts career development and performance evaluations for all employees. For those who perform exceptionally well, the Company provides bonus incentives.

▶ **100%**
coverage of employee performance and career development assessment.



Employee-oriented, Diversity and Inclusiveness

► Employment compliance, equality and inclusion

TP-Link strictly complies with the laws, regulations, and management rules of the places where the Company operates, and has formulated internal management systems such as the *Human Rights Policy*, the *Management Standards for Overtime Work of Workers*, the *Management System for Leave and Vacation of Workers*, and the *Management System for Anti-Discrimination and Anti-Harassment*. TP-Link has also set up a perfect system of employee employment, compensation, and welfare, paid employees' labor compensation in full and on time, and provided competitive salary levels in the industry.

The Company's employment types include labor contract workers, outsourcing employees, and consultant employees¹. The Company has signed labor contracts with all employees and paid social insurance in accordance with the law to ensure that the labor relationship between the Company and the employees is legal, fair, and transparent. In addition, the Company strictly examines the background information and valid identity information of the applicants and resolutely eliminates the employment of child labor and forced labor.

Note 1: The consultant employees of TP-Link are from and work at the region outside of China.

We uphold a fair and unbiased employment philosophy, establish an equal and transparent promotion system, and stimulate employee creativity and vitality through a variety of allowances and recognitions. In addition, our Shenzhen Manufacturing Center and Vietnam Manufacturing Center have signed a *Collective Labor Agreement* with their employees, covering 100% of the employees. This not only reflects our respect for the rights and interests of our employees but also ensures that the working conditions and terms of employment (covering core elements such as wage levels and reasonable working time schedules) are fair and transparent.

The Company actively embraces employee diversity and firmly rejects any personal characteristics such as gender, age, nationality, ethnicity, religious beliefs, color, language, or registered residence as the basis for recruitment and promotion. We firmly oppose any form of discrimination and harassment and are committed to creating a pure and harmonious working environment based on the principles of collaboration and win-win, ensuring that every member can enjoy fair and equitable treatment, and jointly promoting the prosperity and development of the enterprise.



100%
social insurance coverage for manufacturing center employees



0 incidents
of human rights violations



0 incidents
of child labor or underage employees



100%
coverage of employee human rights training



100%
coverage of personnel compliance recruitment training

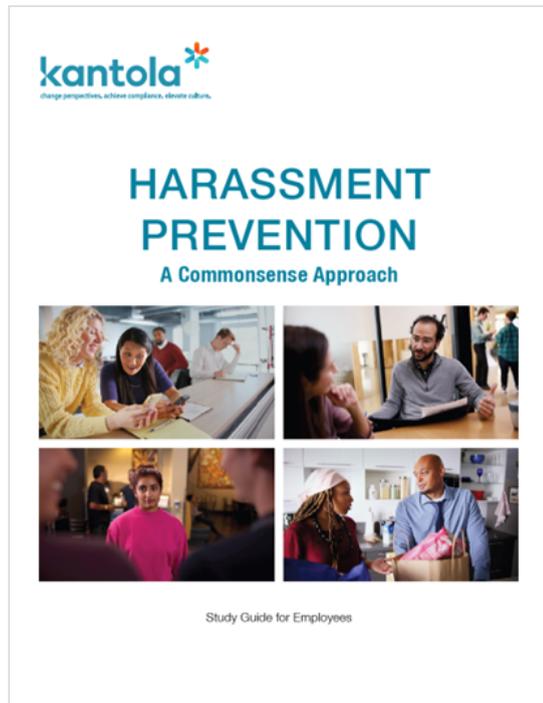
Goals and Progress of TP-Link Diversity and Equal Opportunity

Management indicators and goals	Progress in 2023
0 incidents of child labor, forced labor, discrimination, or harassment	 Completed

Case Harassment Prevention Training of TPS

TPS is committed to providing a positive work environment that recognizes and respects the dignity of all staff. Harassment of any form undermines this important commitment and is not appropriate or acceptable within TPS. As part of our commitment to a safe and welcoming workplace, we are committed to providing CA State Harassment Training on an on-going basis to all employees and managers (every 2 years).

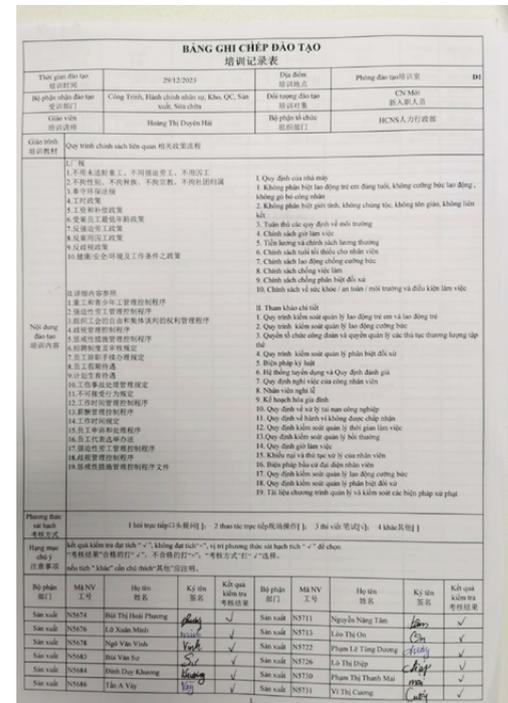
To best serve the needs of our managers and employees, we have partnered with Kantola Training Solutions, a workplace training platform, to offer an on-line delivery of this mandatory Harassment Training. Employees are required to complete the Employee training module which takes 1 hour. Managers are required to complete the Manager training module which takes 2 hours. The training is required companywide, over 115 employees participating in the online training.



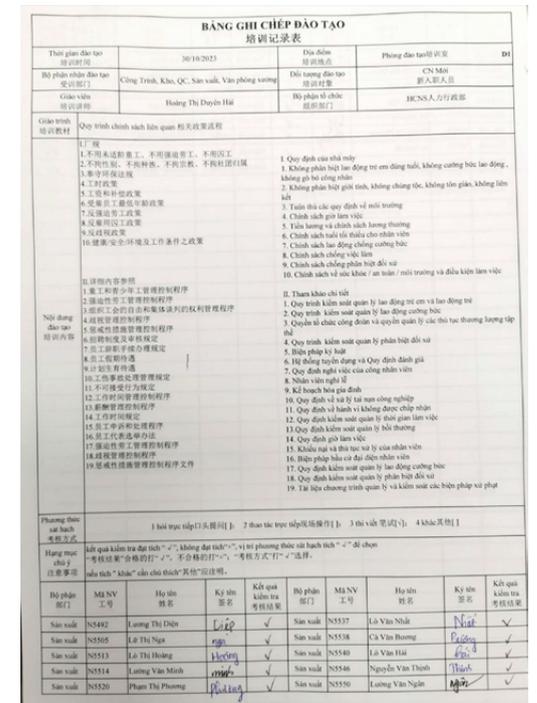
Training courseware

Case Training on Equality, Inclusiveness, and Anti-Discrimination at Vietnam Manufacturing Center

In 2023, the Vietnam Manufacturing Center conducted training on equality, inclusiveness, and anti-discrimination for 1,874 new employees. Employees were able to learn and understand the Company's requirements and related management norms on equality, inclusiveness, and anti-discrimination at the beginning of their employment, with their awareness raised. After the training, employees who participated in the training signed a training record. Each employee received 3 hours of training, totaling 5,622 hours.



Training record



Employee Communication and Welfare Guarantee

The Company attaches importance to the protection of basic rights and benefits and welfare of employees, and clearly stipulates the working hours and vacation system in the Employee Manual. The Company continues to build a perfect welfare system, in place in every country and region where we operate. We have set up several supplementary benefits, and is committed to enhancing the sense of well-being of its employees, based on basic rights and benefits such as five social insurance and one housing fund for labor contract workers according to the law.

The Company places great importance on a two-way communication mechanism with employees, for which a Staff Congress and a Labor Union as formal communication platforms have been established. The Company also organizes regular (monthly) employee symposiums in the factory, provides employee suggestion boxes, and conducts employee satisfaction surveys, aiming to collect and listen to employees' opinions and suggestions broadly and directly.

TP-Link Welfare System



Employee physical examination

Regular physical examination for all employees, and pre-work, on-the-job, and off-the-job physical examination for employees in positions involving risk factors.



Supplementary insurance:

Purchasing supplementary insurance for engineers.



Holiday benefits

Holiday premiums or gifts for legal holidays and gifts and blessing e-cards for employees' birthdays.



Activity benefits

Activity funds for travel, team building, physical exercise, departmental activities, year-end dinner.



Work benefits

Free shuttle bus to and from work.



Welfare for female employees

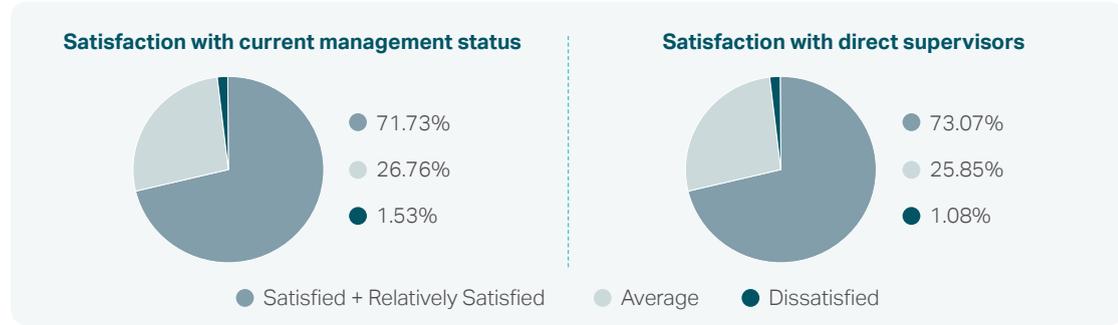
Breastfeeding leave, flexible working hours, mother and baby room, Women's Day activities, health symposium for female employees.

Goals and Progress of TP-Link Employee Rights and Benefits and Welfare

Management indicators and goals	Progress in 2023
100% resolution rate of employee complaints and feedback	✔ Completed
100% coverage rate of holiday and birthday benefits for in-service employees	✔ Completed
100% overtime payment rate	✔ Completed
No less than 1 employee symposium per month	✔ Completed
100% social insurance coverage for manufacturing center employees	✔ Completed

Case Employee Satisfaction Survey at Shenzhen Manufacturing Center

In November 2023, Shenzhen Manufacturing Center conducted an employee opinion survey. The results of the survey showed that 71.73% were satisfied and relatively satisfied with the current management situation and 26.74% were average; 73.07% were relatively satisfied and satisfied with their direct supervisors and 25.85% were average.



Results of Employee Satisfaction Survey at Shenzhen Manufacturing Center

Case Cinco De Mayo Festival and Team Building Activities at TPS

On May 5th, 2023, TPS organized a Cinco De Mayo festival celebration, which was attended by 100 employees. The purpose of this event was not only to commemorate a day of special historical significance for the team members but also to showcase the cultural diversity and inclusiveness of the Company's employees and their community. Through shared celebrations, the event deepened understanding among employees, fostering mutual respect and integration.



Scene of Carnival activities

On May 5th, 2023, TPS hosted a team building event at Topgolf, which attracted participation from over 150 employees.

Case Carnival Activities Organized by Dongguan Manufacturing Center

To enrich the spare-time cultural life of employees, show the enterprise features, enhance the sense of belonging of employees, create the festive atmosphere of the Mid-Autumn Festival, and promote the two-way communication between employees and enterprises, Dongguan Manufacturing Center, together with Songshan Lake Development Zone Management Committee, held the Carnival activities in September 2023, with more than 300 participants.



Image (right): Scene of Carnival activities

To understand the effect of this activity, the Company used offline interviews + questionnaires to collect feedback. A total of 222 questionnaires were collected, and 45 workers were interviewed. According to the results of the survey, the proportion of very satisfied and satisfied personnel reached 71.63%, with a high degree of overall satisfaction. The strong sense of holiday atmosphere and reasonable layout planning were well received by the staff.



Image (right): Scene of Carnival activities

Case Employee Benefits Enhanced at Dongguan Manufacturing Center

To reduce the employee turnover rate and increase employee satisfaction, the departments of Dongguan Manufacturing Center continued to improve the living environment and welfare of employees in 2023. The turnover rate in 2023 was 14.27%, a substantial decrease from 27.05% in 2022.

Logistics

The Company adjusted the standard of staff accommodation: quadruple rooms for key positions and sextuple rooms for non-key positions; the Company, together with various departments, updated the existing Hygiene Inspection System and Dormitory Management Standard, clarified rewards and punishments, and improved the accommodation environment.

Recruitment

The Company established the Employee Recruitment Center and Service Center to improve the interview environment and the onboarding environment; the Company issued the onboarding card to the employees when they were processed for entry and provided the contact person and contact information to deal with the opinions of the employees in service.

Employees' benefits

The Company has optimized the categories and forms of birthday gifts and held birthday parties for employees.



Employee dormitory



Recruitment Center and Service Center

Case Monthly Tea Time Activities at TP-Link German Subsidiary

To reflect the Company's cultural diversity and to strengthen cohesion, the German Subsidiary is organizing Tea Time activities from September 2023 onwards on the last Wednesday of each month. All employees, including outsourced warehouse workers, are invited to welcome the new employees of the month, to say goodbye to departing employees, and to congratulate those who have celebrated birthdays and company anniversaries during the month. During Tea Time, employees can enjoy cakes, drinks, and snacks. The Tea Time has been well received by many employees, especially those from the warehouse.



Scene of Carnival Activities

Community Activities

As a benchmark enterprise in product innovation and operation scale in the global industry, TP-Link deeply realizes that the mission of "using technology to make life better and enabling more people to enjoy the wonders of technology" is not only our lofty mission but also the original motivation and intention rooted in our hearts.

Therefore, we are actively practicing the responsibility and bearing of corporate citizenship, taking the initiative to contribute to social responsibility, cooperating with all walks of life, participating in and promoting various public welfare undertakings, and contributing our humble efforts to build a more harmonious and sustainable human society.

Case Donation of Ambulance from TP-Link India Subsidiary to Delhi Trauma Center

TP-Link India subsidiary is committed to social responsibility at the healthcare level. In 2023, the Company donated an ambulance to the Jai Prakash Narayan Apex Trauma Center at AIIMS, Delhi, to ensure that patients are transported to hospitals in a timely manner in case of emergencies. This underscores the Company's continued commitment to supporting socially underserved groups and improving community health infrastructure.



Donation scene

Case Donation and Distribution of Food to Nursing Homes by TP-Link India Subsidiary

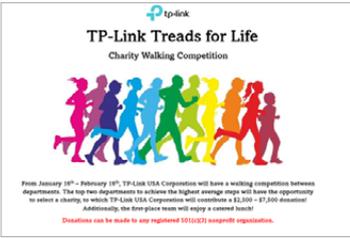
In 2023, TP-Link India subsidiary organized the employees to donate and distribute food to nursing homes to ensure that the nutritional needs of the elderly are met, providing them with safe food and enhancing their quality of life. This underscores the Company's commitment to giving back to the community and ensuring the well-being of the underprivileged.



Scene of Carnival Activities

Case Charity Walking Competition of TPS

In 2024, TPS held an inter-departmental walking competition. The top two departments that achieve the highest average number of steps would have the opportunity to choose a charity to which TPS would donate \$2,500-\$7,500. In the end, the Sales Operations Team won first place, and the Transportation Team took second place, with TPS subsidiary donating \$7,000 and \$3,000, respectively, to the charities chosen by the two teams.



Poster of Charity Walking Competition

05

Stabilization and Facilitation of Compliant Operations

Material Topics

- ▶ Operational compliance and risk management
- ▶ Business ethics



Highlights >>>



Completed

29 internal audits



Conducted

457 compliance trainings

covering

8,306 employees

Compliance Management

Good corporate governance is the cornerstone of the high-quality development of enterprises, an important prerequisite for realizing enterprise management and enhancing enterprise competitiveness, and a guarantee for enterprise sustainability. Compliance management is one of the important measures to promote the modernization of corporate governance capability, and compliance with the law is an inherent need to guarantee healthy sustainability.

TP-Link establishes and strengthens the concept of compliance development, continuously reinforces compliance management capability, proactively identifies and evaluates various types of risks including compliance risks, cultivates a compliance culture, strengthens risk prevention, safeguards business continuity, enhances the level of governance, and promotes the globalized and high-quality development of the Company's business.

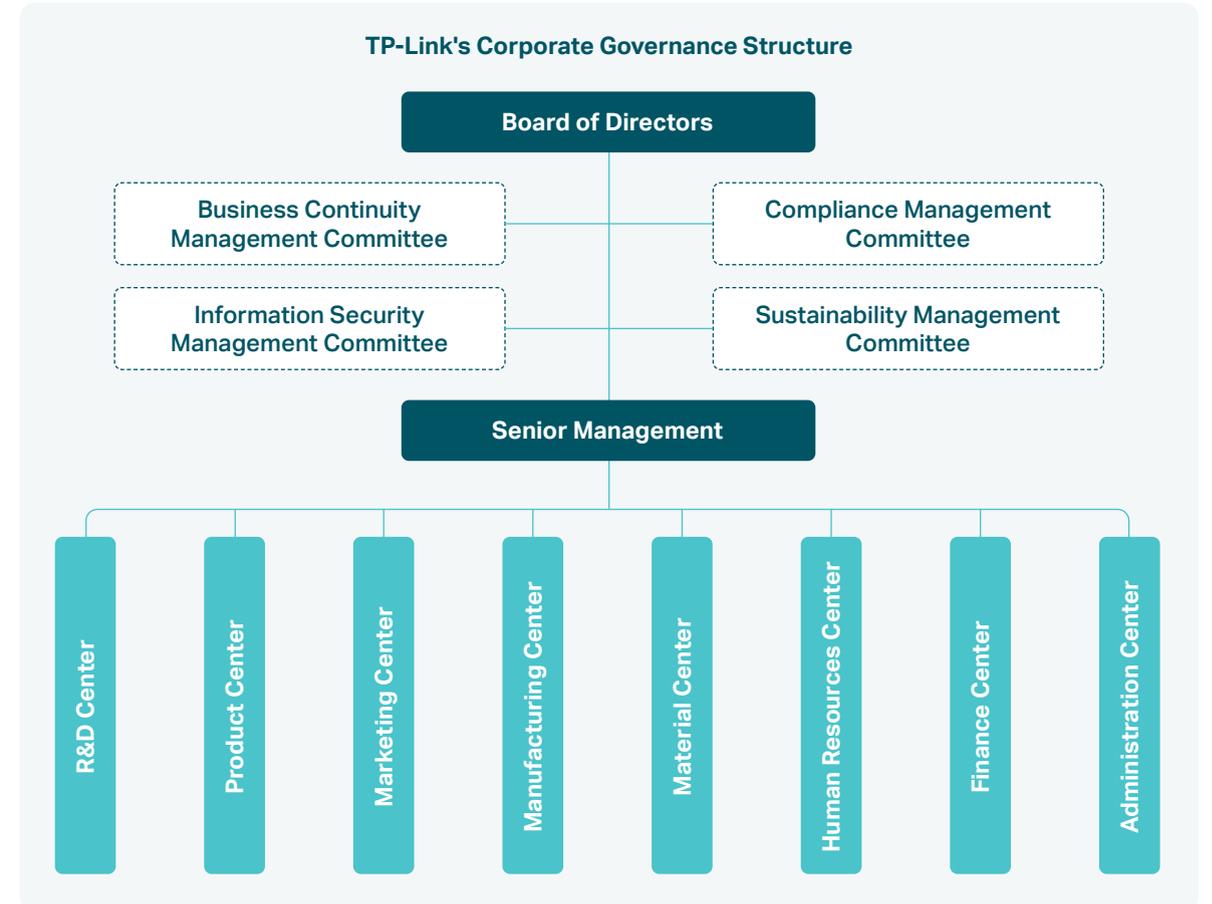
➤ Governance

Governance and Compliance Management

TP-Link strictly complies with the laws, regulations, and ordinances of the places where the Company operates, builds a corporate governance structure consisting of the Board of Directors and senior management, establishes the Sustainability Management Committee, the Business Continuity Management Committee, the Information Security Management Committee, and the Compliance Management Committee under the Board of Directors to form a governance mechanism with a clear division of powers and responsibilities, and to safeguard the Company's sustained operation, standardization, and healthy development.

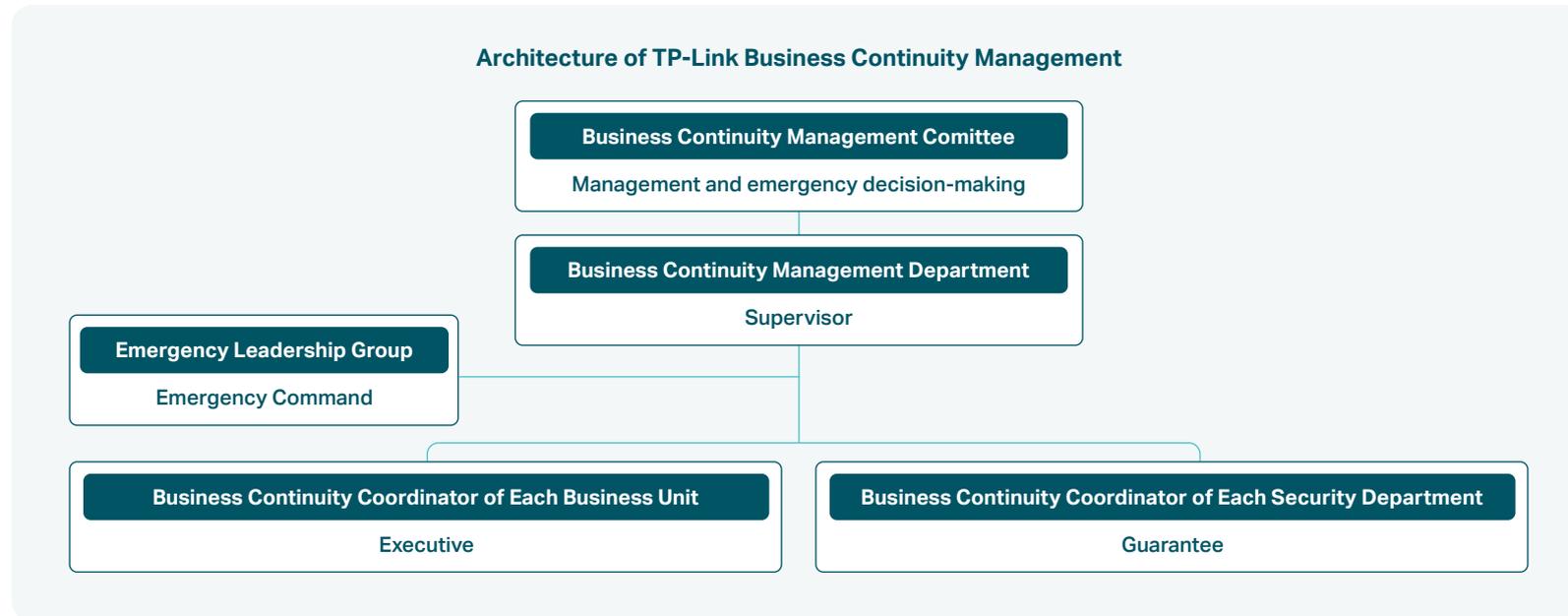
The Board of Directors is responsible for overseeing the strategy, major decisions, risk management processes, and the setting of objectives related to risks and opportunities associated with the corporate governance, and authorizes the Sustainability Management Committee, the Business Continuity Management Committee, the Information Security Management Committee, and the Compliance Management Committee to be responsible for the guidance and decision-making on matters related to the Company's sustainability, information security, risk, and compliance, respectively. Senior management is responsible for implementing the work of the Company's functional departments.

TP-Link adheres to development compliance, complies with the requirements of relevant trade laws and regulations of the places where the Company operates, establishes and improves the compliance management system, and sets up a special compliance working group, to reasonably anticipate the Company's development opportunities.



Business Continuity Management

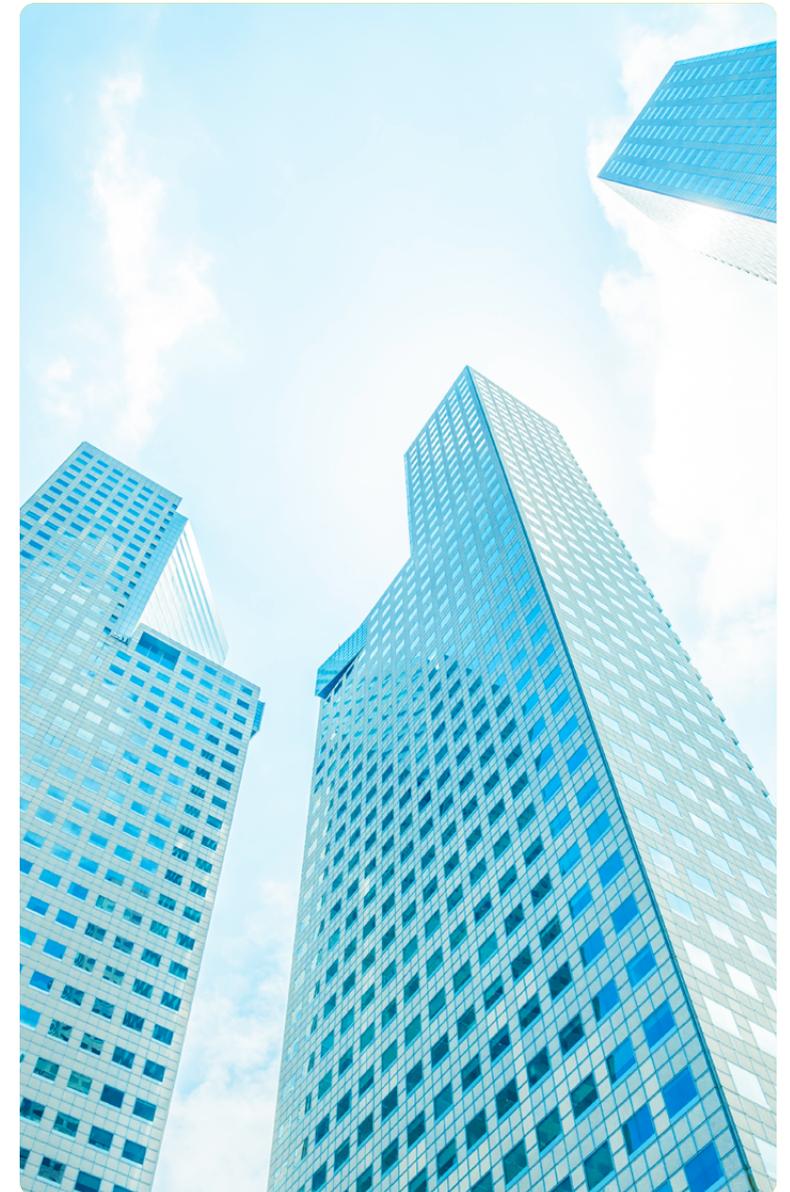
The Company continuously strengthens the ability to cope with risks, automatic adjustment, and rapid response. Based on the ISO 22301 business continuity management system, the Company has formulated the Business Continuity Management System, established the Business Continuity Management Committee to comprehensively scrutinize, evaluate, and identify the business links of the Company, and perfected the construction of the Business Continuity Management (BCM) system to ensure the continuous operation of the business.



Strategy

TP-Link continuously strengthens compliance management in the areas of market transactions, import and export trade, labor and employment, product quality, safety, and environmental protection, and regularly organizes compliance training covering all employees to effectively prevent and control compliant operation risks.

For trade compliance, the Company's legal department and each operation point conduct risk identification on international political, economic, and market development trends, and carry out special assessments on trade compliance. Senior management reviews and approves reports and plans to ensure trade business compliance.



➤ Risk Management

Comprehensive Risk Management

TP-Link adheres to the risk management concept of “pre-risk management”, builds three lines of defense for risks, namely, “control by business departments, audit by functional departments, and supervision by risk control special teams”, establishes standardized risk identification and response procedures, regularly identifies and evaluates major risks, and forms corresponding risk response strategies and preventive programs to prevent possible risks in the Company's operations in the long run.

TP-Link's Three Lines of Defense for Risks

Control by Business department



As the first responsible department for risk management, it is required to identify internal and external changes in the organization in time in daily business operations, identify, discern, assess, and control risks within the scope of responsibilities, and report major risks in time.

Audit by Functional department



Legal, administrative, financial, and other functional departments assist business departments in risk identification and assessment and pay attention to changes in laws, regulations, and policies in real time.

Supervision by Risk control special team

It includes the internal control team, risk control specialists, and financial internal audit specialists, who regularly and systematically conduct audits and hazard screening of the Company's operational and financial segments, reveal risks through audits and screening, and make evaluations and improvement proposals for the risk management of the first and second lines of defense.



In 2023, to ensure the effective operation of the Company's risk management, the Company identified and specified 4 annual risks, including international operation risk, data compliance risk, business ethics risk, and legal compliant operation risk, and took targeted countermeasures to reduce various types of risks.

Risk Identification and Management Efforts Undertaken by TP-Link in 2023

Risk category	Risk descriptions	Scope of impact			Implementation measures and results
		Time ¹	Value chain	Financial position	
International operation risk	Facing political, legal, and economic risks in international operations, the Company is exposed to risks such as sharp fluctuations in exchange rates, inability to fulfill contracts, inability of buyers to meet payment obligations, and restrictions on imports and exports.	Medium term	Logistics Marketing and sales Customer service	Cost raise Income drop	Faced with opportunities and risks, the Company's second and third lines of defense actively play a risk prevention role. In 2023, a total of 16 business risk assessments were implemented to promote the minimization of risks in the last link of sales.
Data compliance risk	Data cross-border tends to be more frequent for companies operating internationally today, which may contain large amounts of user data. As more stringent legislation and regulations are introduced globally, large multinational technology companies are more likely to be prioritized for regulation. The Company must take appropriate steps to achieve data compliance and improve data security protection and governance capabilities.	Long term	Production and operation	Cost raise Income drop	We have built a four-level data protection management structure, issued management documents related to personal privacy protection, and obtained the certification of the information security and privacy information management system. For more details, please refer to the section "Data and Information Security".
Legal compliant operation risk	As global compliance regulations become stricter and stricter, companies need to adapt to more and more international rules when participating in international competition, and many large operators also cite a robust compliance system as an important criterion for selecting vendors and other partners.	Medium term	Production and operation Marketing and sales Customer services	Cost raise Income drop	We continuously improve the construction of the Company's compliance management system and strengthen the compliance review and constraint of our partners.
Business ethics risk	Business unethical behavior by employees of the enterprise and customers doing business with the enterprise may result in the loss of the enterprise's operating efficiency and reputation.	Long term	Production and operation Marketing and sale Customer service	Cost raise Income drop	The internal audit department includes business ethics in the scope of the audit. If any violation of business ethics is found, it should be reported and dealt with in time. For more details, please refer to the section "Ethical Operation in Good Faith".

Note 1: Based on the Company's own business development, it determines that the impact time of relevant risks is 0-2 years in the short term, 2-7 years in the medium term, and 7-27 years in the long term.

Compliance Risk Control Initiatives of Selected TP-Link Subsidiaries

To further improve the risk prevention capability, the Company formulates the Internal Control System and other policies and norms, promotes the construction of the internal control management system, and carries out regular or special internal audits to strengthen internal control management. In 2023, the Company carried out special audits targeting key areas and personnel, focusing on intervention in the administrative procurement and project procurement departments, and completed 29 audits including business ethics, covering the management of suppliers' inspection and introduction, bidding and negotiation of engineering projects, and auditing of subcontracted engineering projects.

All TP-Link subsidiaries conduct compliance and risk control-related training or regular internal and external audits to ensure that their business and trade activities comply with the compliance requirements of the places in which they operate, maintain a favorable market environment, and protect the legitimate rights and interests of consumers and users.

Spain

- Internal audit: Internal audits should be conducted periodically to check and assess the Company's compliance status. Internal audits include inspections of financial statements, transaction records, contract management, etc. to identify potential compliance risks and make recommendations for improvement.
- External audit: A third-party auditor should be invited to conduct an external compliance audit to ensure the transparency and fairness of the Company's compliance management. The external audit report provides the Company with an independent compliance assessment opinion, which helps the Company identify and resolve compliance issues.
- Compliance awareness: Employees' compliance awareness should be raised and compliance policies should be strictly enforced.

South Korea and Japan

- Compliance training: The sales subsidiary in South Korea has developed an employee manual containing compliance-related content, which was used to conduct training for eight new employees in 2023.
- Revision of manual: The sales company in Japan revised the employee manual in 2023 to improve the employee code of conduct and compliance-related management regulations.

UK and France

- Compliance training: The sales company in the UK engaged lawyers to conduct online training on UK commercial law for all sales staff in early 2023. The sales company in France provided compliance training to new sales employees on the regulations required in the business.

► Metrics and Targets



In 2023, to ensure the Company's operational compliance, the Company conducted

457 compliance trainings

for employees covering

8,306 participants



The Company has engaged an external law firm to cooperate in the **interpretation of relevant regulations and compliance identification** for the employees who is responsible for the privacy and security in each department of the Company,

with **19 participants** and **2 hours of training**



Ethical Operation in Good Faith

TP-Link complies with the laws, regulations, ordinances and policies of the places where the Company operates. The Company has established a business ethics management system, with the Board of Directors responsible for managing and supervising anti-corruption and other business ethics work, and the Sustainability Management Committee cooperating with the top leadership in carrying out related efforts. In 2023, the Company did not have any incidents of violating laws and regulations related to anti-corruption, or violating laws and regulations in the social and economic fields and being subject to hefty fines and non-monetary sanctions.

The Company has formulated systems such as the *Code of Business Ethics and Conduct*, the *Anti-Corruption and Anti-Bribery Procedures*, the *Procedures for Managing Fair Trade, Competition, and Integrity Advertisements*, the *System of Integrity and Self-Discipline*, and the *Procedures for Investigating Anti-Ethics Cases*, and revised and issued a statement of *Business Code of Conduct and Ethics* in 2023 to regulate the ethical business behavior of all employees, strictly prohibit acts of corruption and unfair competition, prevent risks associated with corruption, and maintain an honest and fair business environment.

Key Initiatives for TP-Link Business Ethics Management in 2023

Type	Management initiatives
Clarifying integrity responsibilities	<ul style="list-style-type: none"> Signing of the Integrity Agreement by all management and all employees in the purchasing department.
Business ethics employee training	<ul style="list-style-type: none"> Providing training to all employees on business ethics management procedures, the Sedex (Supplier Ethics Data Exchange Platform) Code of Conduct, etc. Providing training on confidentiality and intellectual property protection regulations, whistleblower protection management procedures, and fair trade, competition, and honest advertising management procedures to new employees and managers in the plant's manufacturing lines.
Organizing regular audits	<ul style="list-style-type: none"> The Company regularly audits the internal anti-corruption system, the compliance of employees with the system, and the compliance status of implementation at the business level. A Responsible Business Alliance (RBA) internal audit is conducted annually. In 2023, the Company conducted the 2023 RBA internal audit, which covers compliance audits of documents, systems, and actual operations on business ethics-related topics.
Establishment of whistle-blowing channels	<ul style="list-style-type: none"> The main complaint and whistleblowing channel is the e-mail (internalcontrol@tp-link.com, tellus@tp-link.com), and the communication channels for the Company's employees also include informing their department manager or the Compliance Department. Inquiries and investigations should be handled in a confidential manner. Efforts should be made to protect whistleblowers from retaliation and to ensure that whistleblower information is not disclosed.
Standardization of supplier management	<ul style="list-style-type: none"> The statement of the Code of Conduct for Suppliers issued makes it clear that the Company implements a zero-tolerance policy towards suppliers, prohibits all forms of bribery, corruption, extortion, or misappropriation of public funds, and does not take any form of undue or unfair advantage to maintain fair business, advertising, and competition. The Company shall sign the <i>Integrity Agreement</i> with suppliers and require suppliers to sign the <i>Supplier Social Responsibility Commitment</i>. By the end of 2023, 85.10% of the suppliers had signed it. In 2023, the Company conducted supplier on-site audits and distributed questionnaires containing questions related to business ethics.

Case Training on Business Ethics, Anti-Monopoly and Anti-Unfair Competition

In 2023, TP-Link conducted business ethics training for employees, which includes the Company's integrity culture, integrity system, integrity risk points and self-inspection, and channels for complaints and reports. The Company carried out anti-monopoly and anti-unfair competition training, which includes concepts and differences related to anti-monopoly and anti-unfair competition, and international cases, to help employees understand the Company's integrity culture, clarify professional ethics, and improve their business ethics.



Training scene



ESG Performance Data Sheet

Governance Performance

Anti-corruption and Compliance Performance

TP-Link Anti-corruption and Compliance Performance

Indicators	Units	2022	2023
Number of participants in compliance training	Participant(s)	1,281	8,306
Number of conducted compliance training	Time(s)	90	457
Total amount of fines incurred due to violations of anti-corruption laws and regulations	US Dollar(s)	0	0
Number of employees participating in anti-corruption training	Participant(s)	1,281	8,306
Proportion of operational sites had undergone corruption risk assessments ¹	%	100	100
Number of operational sites for which a review concerning business ethics issues had been conducted ²	Sites(s)	2	6
Number of operational sites with certified business ethics	Sites(s)	0	0
Percentage of operational sites with certified business ethics ³	%	0	0
Number of employees who have been disciplined for other violations (such as conflicts of interest, information leaks, etc.)	Person(s)	0	0
Number of employees who have been disciplined for corruption (including embezzlement, bribery, and misuse of position)	Person(s)	0	0
Total number of confirmed corruption incidents	Case(s)	0	0
Total number of confirmed incidents (where employees were terminated or disciplined due to corruption)	Case(s)	0	0
Total number of confirmed incidents (where contracts with business partners were terminated or not renewed due to violations related to corruption)	Case(s)	0	0
Percentage of board members who have been informed about the Company's anti-corruption policies and procedures ⁴	%	100	100
Percentage of employees who have been informed about the Company's anti-corruption policies and procedures ⁵	%	100	100
Percentage of business partners who have been informed about the Company's anti-corruption policies and procedures ⁶	%	100	100
Percentage of suppliers who have been informed about the Company's anti-corruption policies and procedures ⁷	%	100	100
Number of cases in which the Company has been sanctioned by relevant authorities for unfair competitive practices or violations of antitrust and competition laws	Case(s)	0	0

Note 1: [Calculation method] Proportion of operational sites had undergone corruption risk assessments = Number of the operational sites where had undergone corruption risk assessments / Total number of the operational sites × 100.

Note 2: [Calculation method] Percentage of operational sites for which a review concerning business ethics issues had been conducted = Number of operational sites where had been conducted a review of concerning business ethics issues / Total number of the operational sites × 100.

Note 3: [Calculation method] Percentage of operational sites with certified business ethics = Number of operational sites with certified business ethics / Total number of the operational sites × 100.

Note 4: [Calculation method] Percentage of board members who have been informed about the Company's anti-corruption policies and procedures = Number of board members who have been informed about the Company's anti-corruption policies and procedures / Total number of board members × 100.

Note 5: [Calculation method] Percentage of employees who have been informed about the Company's anti-corruption policies and procedures = Number of employees who have been informed about the Company's anti-corruption policies and procedures / Total number of employees × 100.

Note 6: [Calculation method] Percentage of business partners who have been informed about the Company's anti-corruption policies and procedures = Number of business partners who have been informed about the Company's anti-corruption policies and procedures / Total number of business partners × 100.

Note 7: [Calculation method] Percentage of suppliers who have been informed about the Company's anti-corruption policies and procedures = Number of suppliers who have been informed about the Company's anti-corruption policies and procedures / Total number of suppliers × 100.

➤ Social Performance

Employee Recruitment Performance

TP-Link Employee Recruitment Performance

Indicators		Units	2022					2023				
			Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link
Total number of employees		Person(s)	4,580	2,325	896	4,422	12,223	5,172	2,509	1,453	5,168	14,302
By gender	Female	Person(s)	2,043	730	420	1,286	4,479	2,290	856	781	1,481	5,408
	Male	Person(s)	2,537	1,595	476	3,136	7,744	2,882	1,653	672	3,687	8,894
By age group	Under 30	Person(s)	2,470	1,638	569	2,823	7,500	2,820	1,623	1,026	3,175	8,644
	Between 30 and 50	Person(s)	2,074	687	325	1,502	4,588	2,310	886	423	1,868	5,487
	Over 50	Person(s)	36	0	2	97	135	42	0	4	125	171
By employment type	Full-time	Person(s)	4,580	2,325	896	4,395	12,196	5,172	2,509	1,453	5,131	14,265
	Part-time	Person(s)	0	0	0	15	15	0	0	0	20	20
	Consultant ¹	Person(s)	0	0	0	12	12	0	0	0	17	17
By educational background	Doctorate	Person(s)	0	0	0	22	22	0	0	0	20	20
	Master's degree	Person(s)	7	3	1	1,352	1,363	14	4	1	1,616	1,635
	Bachelor's degree	Person(s)	80	147	68	2,754	3,049	124	146	91	3,186	3,547
	Associate degree and below	Person(s)	4,493	2,175	827	294	7,789	5,034	2,359	1,361	346	9,100
By job location	US	Person(s)	0	0	0	115	115	0	0	0	132	132
	Mainland China	Person(s)	4,578	2,325	0	3,142	10,045	5,070	2,509	0	3,646	11,225
	Others	Person(s)	2	0	896	1,165	2,063	102	0	1,453	1,390	2,945
By level	Base-level employee	Person(s)	4,571	2,302	864	3,885	11,622	5,158	2,485	1,406	4,444	13,493
	Junior management	Person(s)	9	22	26	332	389	10	17	39	461	527
	Middle management	Person(s)	0	1	6	200	207	4	7	8	256	275
	Senior Management	Person(s)	0	0	0	5	5	0	0	0	7	7
Management by gender	Female	Person(s)	1	2	21	132	156	1	3	27	157	188
	Male	Person(s)	8	21	11	405	445	13	21	20	567	621

Indicators	Units	2022					2023					
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	
Number of ethnic minorities employees ²	Person(s)	1,119	473	369	240	2,201	1,316	529	868	261	2,974	
Percentage of ethnic minority in senior management ³	%	0	0	0	0	0	0	0	0	0	0	
Number of employees with disabilities	Person(s)	0	0	0	4	4	0	0	0	5	5	
Percentage of disabilities in senior management ⁴	%	0	0	0	0	0	0	0	0	0	0	
Percentage of female employees in senior management ⁵	%	0	0	0	20%	20%	0	0	0	28.58%	28.58%	
Total number of newly hired employees	Person(s)	2,109	1,222	1,007	1,007	5,975	2,165	1,194	1,874	1,230	6,463	
Percentage by gender	Female ⁶	%	40.40	29.95	44.79	28.53	35.75	42.68	37.69	42.48	30.41	39.36
	Male	%	59.60	70.05	55.21	71.47	64.25	57.32	62.31	57.52	69.59	60.64
Percentage by age group	Under 30	%	67.47	77.82	77.56	84.85	76.05	69.88	75.13	76.31	71.54	73.03
	Between 30 and 50	%	31.77	22.18	22.24	13.99	23.33	29.65	24.87	23.53	26.42	26.38
	Over 50	%	0.76	0.00	0.20	1.16	0.62	0.46	0.00	0.16	2.03	0.59
Percentage by job location	US	%	0	0	0	2.02	0.55	0	0	0	2.93	0.56
	Mainland China	%	100.00	100.00	0	81.18	77.99	100.00	100.00	0	64.23	64.20
	Others	%	0	0	100.00	16.80	21.46	0	0	100.00	32.85	35.25
Number of legal and regulatory violations occurring in employee hiring and termination, compensation and benefits, working hours and leave, equal opportunities, and anti-discrimination.	Case(s)	0	0	0	0	0	0	0	0	0	0	
Percentage of the employees who received training on diversity, discrimination and/or harassment ⁷	%	100	100	100	—	—	100	100	100	—	—	

Note 1: The consultant employees of TP-Link are from and work at the region outside of China.

Note 2: Ethnic minorities refer to ethnic groups in China other than the Han nationality and ethnic groups in Vietnam other than the Kinh nationality.

Note 3: [Calculation method] Percentage of ethnic minority in senior management = Number of ethnic minority employee in senior management / (Number of employees in junior management + Number of employees in middle management + Number of employees in senior management) × 100.

Note 4: [Calculation method] Percentage of disabilities in senior management = Number of disabilities employees in senior management / Number of employees in senior management × 100.

Note 5: [Calculation method] Percentage of female employees in senior management = Number of female employees in senior management / Number of employees in senior management × 100.

Note 6: [Calculation method] Categories of the percentage of newly hired employees = Number of newly hired employees for that category / Total number of newly hired employees × 100.

Note 7: [Calculation method] Percentage of the employees who received training on diversity, discrimination and/or harassment = the number of the employees who received training on diversity, discrimination and/or harassment/the total number of employees × 100.

Employee Occupational Health and Safety Performance

TP-Link Employee Occupational Health and Safety Performance¹

Indicators	Units	2022					2023				
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link
Number of work-related injuries	Time(s)	12	3	0	0	15	10	13 ²	0	0	23
Recordable injury rate per million work hours ³	Time(s)/million hours	1.62	1.68	0	0	1.36	0.56	1.59	0	0	0.75
Number of fatalities resulting from work-related injuries	Person(s)	0	0	0	0	0	0	0	0	0	0
Number of employees exposed to occupational disease risks	Person(s)	—	562	95	—	657	1,138	1,332	254	—	2,724
Rate of occupational diseases among employees ⁴	%	0	0	0	—	—	0	0	0	—	—
Number of occupational health and safety training	Time(s)	352	72	28	—	452.00	469	61	52	—	582.00
Hours of occupational health and safety training	Hour(s)	448.33	418.83	25.20	—	892.36	657.83	240.00	93.60	—	991.43
Number of participants in health and safety training	Participants(s)	9,577	5,533	2,686	—	17,796	16,431	4,260	11,363	—	—
Average occupational health and safety training hours per employee	Hour(s)	15.82	5.45	0.27	—	—	18.78	3.44	0.43	—	—
Number of manufacturing center for which employee health and safety risk assessment has been conducted	Center(s)	1	1	1	—	—	1	1	1	—	—
Percentage of manufacturing center for which employee health and safety risk assessment has been conducted ⁵	%	100	100	100	—	—	100	100	100	—	—

Indicators	Units	2022					2023				
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link
Total recordable incident rate (TRIR) of full-time employees ⁶	/	0.32	0.34	0.00	—	—	0.11	0.32	0.00	—	—
Percentage of entity's facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by all facilities ⁷	%	0	0	0	0	0	100	100	100	0	—
Associated corrective action rate for priority nonconformances, disaggregated by the entity's facilities ⁸	%	0	0	0	0	0	0	0	0	0	0

Note 1: [Statistical caliber] In 2023, the data scope of the Number of work-related injuries, Recordable work-related injury rate per million working hours, Number of fatalities resulting from work-related injuries, Percentage of entity's facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by all facilities, and Associated corrective action rate for priority nonconformances, disaggregated by the entity's facilities is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center and Shenzhen R&D Center. The scope of other indicators includes Shenzhen Manufacturing Center, Dongguan Manufacturing Center and Vietnam Manufacturing Center. In 2022, the data scope of the Number of work-related injuries, Recordable work-related injury rate per million working hours, Number of fatalities resulting from work-related injuries, Percentage of entity's facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by all facilities, and Associated corrective action rate for priority nonconformances, disaggregated by the entity's facilities is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center and Shenzhen R&D Center. Since Shenzhen Manufacturing Center had not counted the Number of employees exposed to occupational disease risks, the statistical caliber of Number of employees exposed to occupational disease risks is Dongguan Manufacturing Center and Vietnam Manufacturing Center. The scope of other indicators includes Shenzhen Manufacturing Center, Dongguan Manufacturing Center and Vietnam Manufacturing Center.

Note 2: In 2023, the Number of work-related injuries for the Dongguan Manufacturing Center were mainly caused by employees injured during production and traffic accidents on the way to and from work, and the reason for the significant increase compared with the previous year was that the value from August 2022 to the end of 2022 was calculated by the Company after the enterprise separation in August 2022.

Note 3: [Calculation method] Recordable injury rate per million work hours = Number of work-related injuries / Total working hours of employees × 1,000,000.

Note 4: [Calculation method] Rate of occupational diseases among employees = Number of employees with occupational diseases / Number of employees exposed to occupational disease risks × 100.

Note 5: [Calculation method] Percentage of manufacturing center for which employee health and safety risk assessment has been conducted = the number of manufacturing center for which employee health and safety risk assessment has been conducted / Number of manufacturing center × 100.

Note 6: [Calculation method] Total recordable incident rate (TRIR) of full-time employees = Number of recordable incident of full-time employees / Total working hours of full-time employees × 200,000.

Note 7: [Calculation method] Percentage of entity's facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by all facilities = Number of entity's facilities audited in the RBA Validated Audit Process (VAP) or equivalent / Number of entity's facilities × 100.

Note 8: [Calculation method] Associated corrective action rate for priority nonconformances, disaggregated by the entity's facilities = Number of corrective actions implemented / Number of corrective actions × 100.

Employee Rights and Benefits Performance

TP-Link Employee Rights and Benefits Performance¹

Indicators	Units	2022					2023				
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link
Rate of employment contract signings ²	%	100	100	100	100	100	100	100	100	100	100
Rate of social insurance coverage ³	%	100	100	100	100	100	100	100	100	100	100
Number of employees taking parental leave	Person(s)	31	11	67	93	202	39	40	79	179	337
By gender	Female	31	4	53	33	121	31	16	47	54	148
	Male	0	7	14	60	81	8	24	32	125	189
Number of employees who returned to work within the reporting period after parental leave	Person(s)	28	11	42	93	174	34	37	55	179	305
By gender	Female	28	4	28	33	93	26	13	23	54	116
	Male	0	7	14	60	81	8	24	32	125	189
Rate of employees returning to work after parental leave ⁴	%	90.32	100.00	62.69	100.00	86.14	87.18	92.50	69.62	100.00	90.50
By gender	Female	90.32	100.00	52.83	100.00	76.86	83.87	81.30	48.94	100.00	78.38
	Male	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number of employees who returned to work after parental leave and remained employed after 12 months	Person(s)	19	10	33	89	151	27	36	38	172	273
By gender	Female	19	3	23	32	77	20	13	14	52	99
	Male	0	7	10	57	74	7	23	24	120	174
Retention rate of employees who took parental leave ⁵	%	67.86	90.90	78.57	95.70	74.75	79.41	90.00	69.09	96.09	81.01

Indicators		Units	2022					2023				
			Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link
By gender	Female	%	67.86	75.00	82.14	96.97	63.64	76.92	81.30	60.87	96.30	66.89
	Male	%	0.00	100.00	71.43	95.00	91.36	87.50	95.80	75.00	96.00	92.06
Number of operational sites which have received human rights impact and risk assessment		Site(s)	1	1	1	—	—	1	1	1	—	—
Percentage of operational sites which have received human rights impact and risk assessment ⁶		%	100	100	100	—	—	100	100	100	—	—
Number of operational sites got labor and human rights certification		Site(s)	0	0	0	—	—	1	0	0	—	—
Percentage of operational sites got labor and human rights certification ⁷		%	0	0	0	—	—	100	0	0	—	—
Number of work stoppages		Time(s)	0	0	0	—	—	0	0	0	—	—
Total days idle		Day(s)	0	0	0	—	—	0	0	0	—	—

Note 1: [Statistical caliber] In 2022 and 2023, Except for the rate of social insurance coverage, other data are compiled under the scope encompassing Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center, Shenzhen R&D Center and other subsidiaries. Regarding some subsidiaries located outside of mainland China and Vietnam, the social insurance coverage rate could not be calculated. The scope for Rate of social insurance coverage is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center and Shenzhen R&D Center.

Note 2: [Calculation method] Rate of employment contract signings = Number of employees who had signed contracts / Total number of employees × 100.

Note 3: [Calculation method] Rate of social insurance coverage = Number of employees enrolled in social insurance / Total number of employees × 100.

Note 4: [Calculation method] Rate of employees returning to work after parental leave = Number of employees returning to work after parental leave / Number of employees taking parental leave × 100.

Note 5: [Calculation method] Retention rate of employees who took parental leave = Number of employees who returned to work after parental leave and remained employed after 12 months / Number of employees taking parental leave × 100.

Note 6: [Calculation method] Percentage of operational sites which have received human rights impact and risk assessment = Number of operational sites which have received human rights impact and risk assessment / Number of operational sites × 100.

Note 7: [Calculation method] Percentage of operational sites got labor and human rights certification = Number of operational sites got labor and human rights certification / Number of operational sites × 100.

Employee Training and Development Performance

TP-Link Employee Training and Development Performance

Indicators		Units	2022					2023				
			Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link
Total expenditure on employee training ¹		US Dollar(s)	0.18	0.17	0.00	8.54	8.90	2.71	0.23	0.11	15.58	18.63
Employee training coverage rate²		%	100	100	100	69.70	89.04	100	100	100	68.32	88.55
By gender	Female	%	100	100	100	68.04	90.82	100	100	100	76.70	93.62
	Male	%	100	100	100	70.38	88.00	100	100	100	64.96	85.47
Average training hours received by employees		Hour(s)	9.29	13.22	7.05	10.93	26.71	39.32	74.16	41.17	11.16	35.44
By gender	Female	Hour(s)	9.29	10.52	7.39	9.56	29.16	39.32	75.45	36.22	10.06	36.58
	Male	Hour(s)	9.29	14.46	6.75	11.49	25.29	39.32	73.49	46.93	11.60	34.75
Proportion of employees receiving regular performance and career development evaluations³		%	100	100	100	100	100	100	100	100	100	100
By gender	Female	%	100	100	100	100	100	100	100	100	100	100
	Male	%	100	100	100	100	100	100	100	100	100	100

Note 1: Total expenditure on employee training is calculated in US dollars using the exchange rate of 7.0827 between the US dollar and the Chinese yuan as of December 29, 2023.

Note 2: Owing to differing job requirements, Shenzhen R&D Center and other subsidiaries have not provided training to all employees. [Calculation method] Employee training coverage rate = Number of employees who attended training / Total number of employees × 100.

Note 3: [Calculation method] Proportion of employees receiving regular performance and career development evaluations = Number of employees receiving regular performance and career development evaluations / Total number of employees × 100.

Product and Service Quality, and Customer Relationship Performance

TP-Link Product and Service Quality, and Customer Relationship Performance

Indicators	Units	2022	2023
Number of product quality training sessions conducted for all employees	Case(s)	858	938
Number of product quality training sessions conducted for all supplier	Case(s)	406	591
Number of products sold or shipped that must be recalled for safety and health reasons	Case(s)	0	0
Number of quality feedback	Case(s)	0	0
Customer satisfaction ¹	%	93.18	97.47
Total number of complaints received regarding products and services	Case(s)	0	0

Note 1: [Calculation method] Customer satisfaction = Number of satisfied from the customer satisfaction surveys on the Company's products and services / Number of customer satisfaction surveys conducted × 100.

Intellectual Property and R&D Innovation Performance

TP-Link Intellectual Property and R&D Innovation Performance

Indicators	Units	2022	2023
Number of R&D personnel	Person(s)	2,073	2,456
Number of patent applications filed within the reporting period	Case(s)	115	52
Number of patents authorized within the reporting period	Case(s)	70	84
Cumulative number of patent applications	Case(s)	594	666
Cumulative number of patents authorized	Case(s)	262	348

Data Security and Customer Privacy Protection Performance

TP-Link Data Security and Customer Privacy Protection Performance

Indicators	Units	2022	2023
Number of incidents penalized due to violations of information security laws and regulations	Case(s)	0	0
Number of employees covered by personal information security training	Person(s)	282	839
Number of personal information security training sessions conducted for employees	Time(s)	55	23
Number of specialized training and assessment sessions conducted in the field of personal information security	Time(s)	1	1
Number of participants in specialized personal information security training and assessments	Person(s)	41	41
Number of individuals who passed the training and assessments in the specialized field of personal information security	Person(s)	41	41

Supplier Management Performance

TP-Link Supplier Management Performance

Indicators	Units	2022	2023
Total number of suppliers	Company(ies)	520	581
Percentage of procurement officers who have completed sustainable procurement training ¹	%	100	100
Proportion of locally sourced raw materials ²	%	65.96	65.40
Proportion of suppliers who have received business ethics training ³	%	100	100
Total number of new suppliers	Company(ies)	46	61
Number of suppliers with contracts that include clauses on environmental, labor, and human rights requirements	Company(ies)	11	54
Percentage of new suppliers' selection using social standards ⁴	%	100	100
Percentage of new suppliers' selection using environmental standards ⁵	%	100	100
Percentage of suppliers signed supplier code of conduct ⁶	%	80.64	85.10
Percentage of suppliers that have gone through a CSR (on-site audit) ⁷	%	90	100
Percentage of suppliers signed honesty and integrity agreement ⁸	%	91.35	91.91

Note 1: [Calculation method] Percentage of procurement officers who have completed sustainable procurement training = Number of procurement officers who have completed sustainable procurement training / Number of procurement officers ×100.

Note 2: [Calculation method] Proportion of localization of raw material procurement = Number of local suppliers used for raw material procurement / Number of suppliers for raw material procurement ×100.

Note 3: [Calculation method] Proportion of suppliers who have received business ethics training = Number of suppliers who have received business ethics training / Number of suppliers ×100.

Note 4: [Calculation method] Percentage of new suppliers' selection using social standards = Number of new suppliers' selection using social standards / Number of new suppliers ×100.

Note 5: [Calculation method] Percentage of new suppliers' selection using environmental standards = Number of new suppliers' selection using environmental standards / Number of new suppliers ×100.

Note 6: [Calculation method] Percentage of suppliers signed supplier code of conduct = Number of suppliers who had signed the supplier code of conduct / Number of suppliers×100.

Note 7: [Calculation method] Percentage of suppliers that have gone through a CSR (on-site audit) = Number of suppliers that have gone through a CSR (on-site audit) / Number of suppliers×100

Note 8: [Calculation method] Percentage of suppliers signed honesty and integrity agreement = Number of suppliers who had signed the honesty and integrity agreement / Number of suppliers×100.

Environmental Contribution performance

Environmental Management Performance

TP-Link Environmental Management Performance¹

Indicators	Units	2022				2023				
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	TP-Link	
Number of environmental trainings	Time(s)	346	47	24	417	365	47	48	460	
Training hours on environmental protection	Hour(s)	236.83	23.67	22.00	282.50	276.83	19.00	77.60	373.43	
Number of employees covered by environmental protection training	Person(s)	7,644	5,106	—	12,750	8,614	2,774	—	11,388	
Percentage of operational sites for which an environmental risk assessment has been conducted ²	%	100	100	100	—	100	100	100	—	
Number of punishments caused by violating the environmental protection laws	Case(s)	0	0	0	0	0	0	0	0	
Amount of environmental protection investment	USD'000	220.90	64.68	102.67	388.26	235.18	950.08	122.82	1,308.07	
By category	Equipment upgrade	USD'000	193.70	—	80.68	274.37	209.10	607.11	80.68	896.89
	Waste disposal	USD'000	7.26	64.68	22.00	93.93	6.17	107.57	42.14	155.89
	Environmental training	USD'000	0.17	—	—	0.17	0.14	—	—	0.14
	Others	USD'000	19.78	—	—	19.78	19.77	235.39	—	255.16

Note 1: [Statistical caliber] In 2022 and 2023, except for Number of employees covered by environmental protection training, the scope for the indicators of environmental management performance is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center. Due to the Number of employees covered by environmental protection training for Vietnam Manufacturing Center cannot be counted, the statistical caliber of it is Shenzhen Manufacturing Center and Dongguan Manufacturing Center in 2022 and 2023.

Note 2: [Calculation method] Percentage of operational sites for which an environmental risk assessment has been conducted = Number of operational sites for which an environmental risk assessment has been conducted / Number of operational sites × 100.

Climate Change and Energy Management Performance

TP-Link Climate Change and Energy Management Performance^{1,2}

Indicators	Units	2023				
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link
Total greenhouse gas emissions (Scope 1+Scope 2+Scope 3)	tCO ₂ e	4,426,501.74	379,049.85	715,143.11	28,238.71	5,548,933.41
Scope 1 greenhouse gas emissions	tCO ₂ e	8,691.63	7,720.95	79.98	3,320.49	19,813.05
Scope 2 greenhouse gas emissions	tCO ₂ e	19,753.18	24,273.87	5,269.03	6,800.10	56,096.18
Scope 3 greenhouse gas emissions	tCO ₂ e	4,398,056.93	347,055.03	709,794.10	18,118.12	5,473,024.18
Scope 3 (downstream) greenhouse gas emissions ³	tCO ₂ e	3,141,723.60	0.00	405,401.72	444.15	3,547,569.47
Scope 3 (upstream) greenhouse gas emissions ³	tCO ₂ e	1,256,333.33	347,055.03	304,392.38	17,673.96	1,925,454.70
Natural gas consumption	m ³	71,549	63,551	—	131,790.36	266,890.36
Stationary source ⁴ diesel fuel consumption	Kilogram	708.08	391.52	1,821.97	3,248.15	6,169.72
Mobile source ⁴ diesel fuel consumption	Kilogram	100,438.48	101,553.20	2,300.22	85,835.04	290,126.94
Official vehicles gasoline consumption	Litre	—	—	—	53,080.14	53,080.14
Other equipment ⁴ gasoline consumption	Litre	—	—	29.40	—	29.40
Electricity consumption	kWh	34,636,475.84	42,563,343.00	8,343,680.00	12,245,484.40	97,788,983.24

Note 1: [Statistical caliber] In 2023, the statistics scale of greenhouse gas emissions is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center, Shenzhen R&D Center and other subsidiaries. Among them, other subsidiaries include Tianliao Manufacturing Center, TPC and other R&D and sales companies.

Note 2: [Calculation method] The calculation of greenhouse gas emissions is based on ISO 14064-1:2018 and the GHG Protocol. Emission factors for greenhouse gases refer to the UK Government GHG Conversion Factors for Company Reporting (2023), the IPCC Guidelines for National Greenhouse Gas Inventories in 2006, the Guidelines for Greenhouse Gas Emissions Accounting and Reporting for Electronic Equipment Manufacturing Enterprises, and the General Rules for Calculating Comprehensive Energy Consumption (GB/T 2589-2020), etc.

Note 3: According to the GHG protocol, Scope 3 greenhouse gas can be divided into 15 categories. Scope 3 (upstream) greenhouse gas includes Category 1 Purchased goods and services, Category 2 Capital goods, Category 3 Fuel- and energy-related activities (not included in Scope 1 and Scope 2), Category 4 Upstream transportation and distribution, Category 5 Waste generated in operations, Category 6: Business travel, Category 7 Employee commuting and Category 8 Upstream leased assets; Scope 3 (downstream) greenhouse gas includes Category 9 Downstream transportation and distribution, Category 10 Processing of sold products, Category 11 Use of sold products, Category 12 End-of-life treatment of sold products, Category 13 Downstream leased assets, Category 14 Franchising and Category 15 Investment.

Note 4: Stationary source includes emergency generators. Mobile source encompasses trucks, commercial vehicles and diesel forklifts. Other equipment includes weeding machine.

Water Resources and Wastewater Management Performance

TP-Link Water Resources and wastewater Management Performance¹

Indicators	Units	2022					2023				
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center	Shenzhen R&D Center and other subsidiaries	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center ²	Shenzhen R&D Center and other subsidiaries	TP-Link
Water withdrawal	m ³	380,117.00	232,749.00	15,226.00	—	628,092.00	394,025.85	247,495.19	46,782.00	55,983.49	744,286.53
Wastewater discharge ³	m ³	342,105.30	147,216.60	13,703.40	—	519,469.20	314,334.77	158,461.37	42,103.80	—	565,285.08
Domestic sewage discharge	m ³	342,105.30	147,216.60	13,703.40	—	519,469.20	314,334.77	158,461.37	42,103.80	—	565,285.08

Note 1: [Statistical caliber] In 2023, except for the Water withdrawal, the scope of other indicators is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center. The statistical caliber for Water withdrawal is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center and Shenzhen R&D Center and other subsidiaries in 2023. In 2022, since most of the premises of other subsidiaries are leased, it is not possible to calculate the amount of water withdrawn. The statistical caliber for all the indicators is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center.

Note 2: In 2023, production capacity increase at Vietnam Manufacturing Center leading to a significant increase in water-related data from 2022.

Note 3: Because the Dongguan Manufacturing Center cannot count the amount of industrial wastewater generated, and the rest of the Manufacturing Center, R&D Center and subsidiaries have no industrial wastewater, the Wastewater discharge is equal to the Domestic sewage discharge.

Raw Materials and Packaging Management Performance

TP-Link Raw Materials and Packaging Management Performance¹

Indicators	Units	2022				2023			
		Shenzhen Manufacturing Center ²	Dongguan Manufacturing Center	Vietnam Manufacturing Center ³	TP-Link	Shenzhen Manufacturing Center ²	Dongguan Manufacturing Center ⁴	Vietnam Manufacturing Center	TP-Link
Total consumption of packaging materials for manufactured goods	tons	14,075.95	1,773.26	—	15,849.21	20,095.27	2,385.65	1,769.87	24,250.79
By type	paper	13,560.78	448.22	—	14,009.00	19,470.27	823.45	302.67	20,596.39
	plastic	515.17	1,325.04	—	1,840.21	625.00	1,562.20	1,467.20	3,654.40
Total recycling of packaging materials for manufactured goods	tons	0	1,369.63	0	1,437.22	0	1,792.44	0	1,792.44
By type	paper	0	132.29	0	132.29	0	290.94	0	290.94
	plastic	0	1,237.34	0	1,304.93	0	1,501.50	0	1,501.50

Note 1: [Statistical caliber] In 2023, the scope is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center. In 2022, due to the Total consumption of packaging materials for manufactured goods cannot be counted at Vietnam Manufacturing Center, the scope of that is Shenzhen Manufacturing Center, Dongguan Manufacturing Center and scope of other indicators is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center.

Note 2: Shenzhen Manufacturing Center does not recycle packaging materials for manufactured products on its own, they are handed over to third-party to recycle or disposal. The recycling data from the third parties has not been collected and compiled for the time being.

Note 3: Due to the business characteristics of the Dongguan Manufacturing Center, only the Dongguan Manufacturing Center involves in the recycling of packaging materials for manufactured goods.

Note 4: In 2023, production capacity increase at Dongguan Manufacturing Center led to a significant increase in raw material and packaging-related data from 2022.

Waste Gases and Waste Management Performance

TP-Link Waste Gases and Waste Management Performance¹

Indicators	Units	2022				2023			
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center ²	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center ³	Vietnam Manufacturing Center ^{2,3}	TP-Link
Waste Gases Emissions									
PM	Kilogram	16,718.24	0	—	16,718.24	12,494.53	0	—	12,494.53
NOx	Kilogram	20,431.19	—	—	20,431.19	8,491.06	0	—	8,491.06
SOx	Kilogram	3,594.72	—	—	3,594.72	3,462.68	0	—	3,462.68
NMHC	Kilogram	8,140.00	4.05	—	8,144.05	13,990.00	9.27	—	13,999.27
VOCs	Kilogram	13,290.00	1.37	—	13,291.37	16,330.00	1.77	—	16,331.77
Smoke and dust	Kilogram	0	0.01	0.06	0.07	0	0.01	0.05	0.06
Benzene	Kilogram	0	0	12.54	12.54	0	0	0.07	0.07
CF ₃ CHFCF ₃	Kilogram	—	0	—	0	1,693.00	0	—	1,693.00
Tin and its compound	Kilogram	20.81	0	—	20.81	19.97	0	—	19.97
Waste									
Total weight of non-hazardous waste generated	tons	2,120.89	780	176.14	2,756.03	2,879.66	1090	363.96	4,025.62
Total weight of non-hazardous waste disposal	tons	2,120.89	780	176.14	2,756.03	2,879.66	1090	363.96	4,025.62
Total amount of hazardous waste generated ⁴	tons	101.10	79.30	3.24	183.64	134.48	100.51	8.75	243.74
Stencil wipes, waste rags, waste gloves	tons	16.70	7.41	1.91	26.02	18.06	10.66	6.14	34.86
Waste liquid	tons	2.11	18.00	0.46	20.57	1.20	17.33	0.39	18.92
Waste empty containers and bottles	tons	3.94	6.62	0.02	10.58	5.17	7.36	0.01	12.54
Waste activat-ed carbon	tons	1.90	10.68	0.04	12.62	10.53	16.18	0.00	26.71
Waste mineral oil	tons	0.04	10.26	0.00	10.30	0.15	13.27	0.00	13.42
Waste light tubes	tons	0.87	0.00	0.05	0.92	0.29	0.00	0.00	0.29

Indicators	Units	2022				2023			
		Shenzhen Manufacturing Center	Dongguan Manufacturing Center	Vietnam Manufacturing Center ²	TP-Link	Shenzhen Manufacturing Center	Dongguan Manufacturing Center ³	Vietnam Manufacturing Center ^{2,3}	TP-Link
Scrap PCBs and board edges	tons	65.88	25.49	0.00	91.37	93.41	32.67	0.00	126.08
PCB dust	tons	9.66	—	0.23	9.89	5.67	0.00	1.04	6.71
Other	tons	—	0.84	0.53	1.37	0.00	3.04	1.17	4.21
Total amount of hazardous waste disposal ⁴	tons	118.25	54.50	3.24	175.99	124.04	64.02	8.75	196.81
Stencil wipes, waste rags, waste gloves	tons	18.71	6.89	1.91	27.51	18.08	10.60	6.14	34.82
Waste liquid	tons	1.40	18.55	0.46	20.41	1.79	16.49	0.39	18.67
Waste empty containers and bottles	tons	4.38	7.05	0.02	11.45	4.89	7.40	0.01	12.30
Waste activated carbon	tons	1.85	9.82	0.04	11.71	10.58	16.18	0.00	26.76
Waste mineral oil	tons	0.19	9.28	0.00	9.47	0.18	13.10	0.00	13.28
Waste light tubes	tons	0.87	0.00	0.05	0.92	0.00	0.00	0.00	0.00
Scrap PCBs and board edges	tons	86.07	9.40	0.00	95.47	85.41	0.00	0.00	85.41
PCB dust	tons	4.77	—	0.23	5.00	3.11	0.00	1.04	4.15
Other	tons	—	0.40	0.53	0.93	0.00	0.25	1.17	1.42
Hazardous waste disposal rate ⁴	%	116.96	68.72	100.00	95.83	92.24	63.70	100.00	0.81

Note 1: [Statistical caliber] In 2022 and 2023, the scope of the waste gases and waste indicators is Shenzhen Manufacturing Center, Dongguan Manufacturing Center, Vietnam Manufacturing Center.

Note 2: Vietnam Manufacturing Center is controlled by the relevant laws and regulations of Vietnam, so that the emission of waste gases pollutants only counts the emissions of smoke and dust and benzene.

Note 3: In 2023, production capacity increase at Vietnam Manufacturing Center and Dongguan Manufacturing Center lead to a significant increase in waste gases and waste relevant data compared with those data in 2022.

Note 4: Some of the hazardous wastes can be temporarily stored in the Manufacturing Centers for one year under the condition of compliance, and some of the hazardous wastes generated in the previous year will be disposed of in the current year. Therefore, it's possible that the Total amount of hazardous waste disposal exceeds the Total amount of hazardous waste generated, and the Hazardous waste disposal rate exceeds 100%.

Report Standard Index

GRI Content Index

Statement of use		TP-Link has reported the information cited in this GRI content index for the period from January 1, 2023 to December 31, 2023 with reference to the GRI Standards.			
GRI 1 used		GRI 1: Foundation 2021			
Applicable GRI Sector Standard(s)		No applicable GRI Sector Standards			
GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
General disclosures					
GRI 2: General Disclosures 2021	2-1 Organizational details	About TP-Link			
	2-2 Entities included in the organization's sustainability re- porting	About the Report			
	2-3 Reporting period, frequency and contact point	About the Report			
	2-4 Restatements of information	ESG Performance Data Sheet			
	2-5 External assurance	Verification Statement			
	2-6 Activities, value chain and other business rela- tion-ships	About TP-Link			
	2-7 Employees	ESG Performance Data Sheet			
	2-8 Workers who are not employees	ESG Performance Data Sheet			
	2-9 Governance structure and composition	Compliance Management Sustainability Governance Framework			
	2-10 Nomination and selection of the highest gover- nance body	Omitted	2-10a 2-10b	Information unavailable / incomplete	The Company is presently not disclosing the relevant information to the public.
	2-11 Chair of the highest governance body	Omitted	2-11a 2-11b	Information unavailable / incomplete	The Company is presently not disclosing the relevant information to the public.

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
	2-12 Role of the highest governance body in overseeing the management of impacts	Compliance Management Sustainability Governance Framework			
	2-13 Delegation of responsibility for managing impacts				
	2-14 Role of the highest governance body in sustainability reporting				
	2-15 Conflicts of interest	About the Report			
	2-16 Communication of critical concerns	Stakeholder Communication			
	2-17 Collective knowledge of the highest governance body	Sustainability Management			
	2-18 Evaluation of the performance of the highest governance body	Omitted	2-18a 2-18b 2-18c	Confidentiality constraints	In adherence to the Company's confidentiality policies, it will not be disclosing the pertinent information externally.
	2-19 Remuneration policies	Omitted	2-19a 2-19b	Information unavailable / incomplete	The Company is presently not disclosing the relevant information to the public.
	2-20 Process to determine remuneration	Omitted	2-20a 2-20b	Confidentiality constraints	In adherence to the Company's confidentiality policies, it will not be disclosing the pertinent information externally.
	2-21 Annual total compensation ratio	ESG Performance Data Sheet			
	2-22 Statement on sustainable development strategy	Message from the Director			
	2-23 Policy commitments	Compliance Management Compliance and Win-Win Cooperation Employee-oriented, Diversity and Inclusiveness			
	2-24 Embedding policy commitments				
	2-25 Processes to remediate negative impacts				
	2-26 Mechanisms for seeking advice and raising concerns	Ethical Operation in Good Faith			

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
	2-27 Compliance with laws and regulations	ESG Performance Data Sheet			
	2-28 Membership associations	About TP-Link			
	2-29 Approach to stakeholder engagement	Stakeholder Communication			
	2-30 Collective bargaining agreements	Employee-oriented, Diversity and Inclusiveness			
Material topics					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Material Topic Identification and Analysis			
	3-2 List of material topics	Material Topic Identification and Analysis			
Economic performance					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Working Together to Address Climate Challenges Resource Integration and Circular Economy Employee-oriented, Diversity and Inclusiveness			

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	ESG Performance Data Sheet			
	201-2 Financial implications and other risks and opportunities due to climate change	Working Together to Address Climate Challenges			
	201-3 Defined benefit plan obligations and other retirement plans	Omitted	201-3a 201-3b 201-3c 201-3d 201-3e	Information unavailable / incomplete	The Company is presently not disclosing the relevant information to the public.
	201-4 Financial assistance received from government	Omitted	201-4a 201-4b 201-4c	Confidentiality constraints	In adherence to the Company's confidentiality policies, it will not be disclosing the pertinent information externally.
Indirect economic impacts					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Community Activities			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Community Activities			
	203-2 Significant indirect economic impacts				
Procurement practices					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Compliance Management			
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	ESG Performance Data Sheet			
Anti-corruption					

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Ethical Operation in Good Faith			
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	ESG Performance Data Sheet			
	205-2 Communication and training about anti-corruption policies and procedures	Ethical Operation in Good Faith			
	205-3 Confirmed incidents of corruption and actions taken	Ethical Operation in Good Faith			
Anti-competitive behavior					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Ethical Operation in Good Faith			
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	ESG Performance Data Sheet			
Materials					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Resource Integration and Circular Economy			
GRI 301: Materials 2016	301-1 Materials used by weight or volume	ESG Performance Data Sheet			
	301-2 Recycled input materials used	ESG Performance Data Sheet			
	301-3 Reclaimed products and their packaging materials	ESG Performance Data Sheet			
Energy					

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Resource Integration and Circular Economy			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	ESG Performance Data Sheet			
	302-2 Energy consumption outside of the organization	ESG Performance Data Sheet			
	302-3 Energy intensity	ESG Performance Data Sheet			
	302-4 Reduction of energy consumption	Resource Integration and Circular Economy			
	302-5 Reductions in energy requirements of products and services	Omitted	302-5a 302-5b 302-5c	Information unavailable / incomplete	Given the diverse array of product types offered by the Company, which exhibit considerable differences in power requirements and usage environments, it is impractical to monitor and quantify the actual energy consumption at the point of use. Consequently, it is not possible to quantify the reduction in energy demand for our products. Throughout the reporting period, the Company has consistently intensified its initiatives focused on the design, research, and production of environmentally friendly products, with the aim of decreasing energy utilization.
Water and effluents					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Resource Integration and Circular Economy			

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Resource Integration and Circular Economy Strict Pollution Control and Ecological Protection			
	303-2 Management of water discharge-related impacts	Strict Pollution Control and Ecological Protection			
	303-3 Water withdrawal	Resource Integration and Circular Economy ESG Performance Data Sheet			
	303-4 Water discharge	Strict Pollution Control and Ecological Protection ESG Performance Data Sheet			
	303-5 Water consumption	ESG Performance Data Sheet			
Emissions					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Resource Integration and Circular Economy			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	ESG Performance Data Sheet			
	305-2 Energy indirect (Scope 2) GHG emissions	ESG Performance Data Sheet			
	305-3 Other indirect (Scope 3) GHG emissions	ESG Performance Data Sheet			
	305-4 GHG emissions intensity	ESG Performance Data Sheet			
	305-5 Reduction of GHG emissions	Working Together to Address Climate Challenges			
	305-6 Emissions of ozone-depleting substances (ODS)	ESG Performance Data Sheet			
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	ESG Performance Data Sheet			
Waste					

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Resource Integration and Circular Economy			
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	ESG Performance Data Sheet			
	306-2 Management of significant waste-related impacts	ESG Performance Data Sheet			
	306-3 Waste generated	ESG Performance Data Sheet			
	306-4 Waste diverted from disposal	ESG Performance Data Sheet			
	306-5 Waste directed to disposal	ESG Performance Data Sheet			
Supplier environmental assessment					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Compliance and Win-Win Cooperation			
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	ESG Performance Data Sheet			
	308-2 Negative environmental impacts in the supply chain and actions taken	Compliance and Win-Win Cooperation			
Employment					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Employee-oriented, Diversity and Inclusiveness			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	ESG Performance Data Sheet			
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employee-oriented, Diversity and Inclusiveness			
	401-3 Parental leave	ESG Performance Data Sheet			

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
Labor/management relations					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Employee-oriented, Diversity and Inclusiveness			
GRI 402: Labor/management Relations 2016	402-1 Minimum notice periods regarding operational changes	Employee-oriented, Diversity and Inclusiveness			
Occupational health and safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Health and Safety Work Employee-oriented, Diversity and Inclusiveness			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Health and Safety Work			
	403-2 Hazard identification, risk assessment, and incident investigation				
	403-3 Occupational health services				
	403-4 Worker participation, consultation, and communication on occupational health and safety				
	403-5 Worker training on occupational health and safety				
	403-6 Promotion of worker health	Employee-oriented, Diversity and Inclusiveness			

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Health and Safety Work ESG Performance Data Sheet			
	403-8 Workers covered by an occupational health and safety management system				
	403-9 Work-related injuries				
	403-10 Work-related ill health				
Training and education					
GRI 3: Material Topics 2021	3-3 Management of material topics	Training to Build a Foundation for a Better Career			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	ESG Performance Data Sheet			
	404-2 Programs for upgrading employee skills and transition assistance programs	Training to Build a Foundation for a Better Career			
	404-3 Percentage of employees receiving regular performance and career development reviews	ESG Performance Data Sheet			
Diversity and equal opportunity					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Employee-oriented, Diversity and Inclusiveness			
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	ESG Performance Data Sheet			
	405-2 Ratio of basic salary and remuneration of women to men	Omitted	405-2a 405-2b	Confidentiality constraints	In adherence to the Company's confidentiality policies, it will not be disclosing the pertinent information externally.
Non-discrimination					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Employee-oriented, Diversity and Inclusiveness			

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Employee-oriented, Diversity and Inclusiveness			
Freedom of association and collective bargaining					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Employee-oriented, Diversity and Inclusiveness			
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Employee-oriented, Diversity and Inclusiveness			
Child labor					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Employee-oriented, Diversity and Inclusiveness			
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	Employee-oriented, Diversity and Inclusiveness			
Forced or compulsory labor					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Employee-oriented, Diversity and Inclusiveness			
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Employee-oriented, Diversity and Inclusiveness			
Local communities					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Community Activities			

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Community Activities ESG Performance Data Sheet			
	413-2 Operations with significant actual and potential negative impacts on local communities	Community Activities ESG Performance Data Sheet			
Supplier social assessment					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Compliance and Win-Win Cooperation			
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	ESG Performance Data Sheet			
	414-2 Negative social impacts in the supply chain and actions taken	Compliance and Win-Win Cooperation ESG Performance Data Sheet			
Customer health and safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Quality-based and Service-oriented			
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Quality-based and Service-oriented			
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services				
Marketing and labeling					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Quality-based and Service-oriented			

GRI STANDARD	DISCLOSURE	LOCATION	OMISSION		
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	Quality-based and Service-oriented			
	417-2 Incidents of non-compliance concerning product and service information and labeling				
	417-3 Incidents of non-compliance concerning marketing communications				
Customer privacy					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material Topic Identification and Analysis Data and Information Security			
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Data and Information Security			

SASB Standards Index- Electronic Manufacturing Services & Original Design Manufacturing

TOPIC	CODE	METRIC	LOCATION
Water Management	TC-ES-140a.1	(1) Total water withdrawn (m ³); (2) Total water consumed (m ³); (3) percentage of total water withdrawn in regions with High or Extremely High Baseline Water Stress (%); (4) percentage of total water consumed in regions with High or Extremely High Baseline Water Stress (%)	ESG Performance Data Sheet Resource Integration and Circular Economy
Waste Management	TC-ES-150a.1	(1) Amount of hazardous waste from manufacturing (t); (2) Percentage of recycled hazardous waste (%)	ESG Performance Data Sheet Strict Pollution Control and Ecological Protection
Labor Practices	TC-ES-310a.1	(1) Number of work stoppages (No.); (2) Total days idle (days)	ESG Performance Data Sheet Employee-oriented, Diversity and Inclusiveness
Workforce Conditions, Health & Safety	TC-ES-320a.1	(1a) Total recordable incident rate (TRIR) for direct employees; (1b) Total recordable incident rate (TRIR) for contract employees; (2a) Near miss frequency rate (NMFR) for direct employees; (2b) Near miss frequency rate (NMFR) for contract employees.	ESG Performance Data Sheet Health and Safety Work
	TC-ES-320a.2	(1a) Percentage of entity's facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by all facilities; (1b) Percentage of entity's facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by high-risk facilities; (2a) Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by all facilities; (2b) Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by high-risk facilities.	ESG Performance Data Sheet Health and Safety Work
	TC-ES-320a.3	(1i) Non-conformance rate with the RBA Validated Audit Process (VAP) or equivalent disaggregated by the entity's facilities; (1ii) Non-conformance rate with the RBA Validated Audit Process (VAP) or equivalent disaggregated by the entity's Tier 1 supplier facilities; (2ai) Associated corrective action rate for priority nonconformances, disaggregated by the entity's facilities; (2aii) Associated corrective action rate for priority nonconformances, disaggregated by the entity's Tier 1 supplier facilities; (2bi) Associated corrective action rate for other nonconformances, disaggregated by the entity's facilities; (2bii) Associated corrective action rate for other nonconformances, disaggregated by the entity's Tier 1 supplier facilities.	ESG Performance Data Sheet Health and Safety Work Compliance and Win-Win Cooperation
Product Lifecycle Management	TC-ES-410a.1	Weight of end-of-life products and e-waste recovered (t); percentage recycled of end-of-life products and e-waste (%)	ESG Performance Data Sheet Resource Integration and Circular Economy
Materials Sourcing	TC-ES-440a.1	Description of the management of risks associated with the use of critical materials.	Compliance and Win-Win Cooperation

Verification Statement



Independent Assurance Statement

Introduction

TÜV Rheinland (Shanghai) Co., Ltd., member of TÜV Rheinland Group, Germany (hereinafter "TÜV Rheinland", "We") has been entrusted by the management of TP-Link Systems Inc. (hereinafter "TP-Link", "the company") to conduct independent assurance of its 2023 Sustainability Report of TP-Link (hereinafter "the Report"). All contractual contents for this assurance engagement rest entirely within the responsibility of TP-Link. Our task was to give a fair and adequate judgment on the Report.

The intended users of this assurance statement are stakeholders who have relevance to TP-Link's overall sustainability performance and impacts of its business activities during year 2023 (1 January 2023 ~ 31 December 2023).

TÜV Rheinland is a global service provider of Corporate Social Responsibility (CSR) & Sustainability Services in over 65 countries, having qualified professionals in the field of Corporate Sustainability Assurance, Environment, Social and Stakeholder Engagement. We have maintained complete impartiality and independence during the assurance engagement, and we were not involved in the preparation of the Report contents.

Assurance Standard

TÜV Rheinland undertook the assurance work in accordance with the AA1000 Assurance Standard v3 (AA1000AS v3), Moderate level of assurance.

Scope & Type of Assurance

Our assurance engagement was carried out in accordance with the AA1000AS v3, Type 2 Moderate level on TP-Link sustainability performance information and data disclosed in the Report, including assessment of reliability of specified performance information (Total greenhouse gas emissions (Scope 1 + Scope 2 + Scope3) (tonnes CO₂e), Scope 1 greenhouse gas emissions (tonnes CO₂e), Scope 2 greenhouse gas emissions (tonnes CO₂e), Scope 3 greenhouse gas emissions (tonnes CO₂e), Electricity Consumption (kWh), Water withdrawal (m³), Recordable Injury Rate per Million Work Hours (time/hour), Total Recordable Incident Rate (TRIR) of Full Time Employees, Total amount of hazardous waste generated (ton), Hazardous Waste Disposal Rate (%)).

The following assurance criteria were used in performing the assurance work:

- With reference to the GRI Sustainability Reporting Standards (GRI Standards)
- The Sustainability Accounting Standard by the Sustainability Accounting Standards Board (SASB)
- IFRS S1: General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2: Climate-related Disclosures issued by International Sustainability Standards Board (ISSB)
- Climate-related Disclosures issued by International Sustainability Standards Board (ISSB)
- The United Nations Sustainable Development Goals (UN SDGs)
- ISO 14064-1:2018, Greenhouse Gas Protocol (GHG Protocol) (WRI & WBCSD) for GHG emissions data verification
- Adherence to the AA1000 AccountAbility Principles of *Inclusivity, Materiality, Responsiveness, and Impact.*

Assurance Methodology

Our assurance activities included:

- Reviewing and evaluating the company's governance processes, systems and controls, including corporate governance, risk management, stakeholder engagement, materiality analysis, objectives and indicators.
- Interviews with senior management responsible for the company's sustainability management and managers from various functional departments who gather and report information.



- Reviewing, examining, and testing sustainability management practices, performance information and data calculations, and evidence collection from source to aggregation based on sampling principles and application of analytical procedures to ensure the completeness and accuracy of the information.
- Evaluating the quality of specified performance information selected by the company to ensure that its disclosures are consistent with assurance observations.
- Collecting and assessing evidence and management performance in relation to the above to support adherence to the AccountAbility Principles.
- Reporting the assurance observations to the company's management to provide an opportunity for the company to take measures to correct reporting errors prior to completion of the assurance process.

Limitations

TÜV Rheinland performed the assurance based on the scope of defined engagement agreement, and on a moderate level assurance under the AA1000AS for engagement. Information and performance data subject to assurance is limited to the contents of the Report.

Procedures performed in a moderate assurance vary in nature from, and are less in extent, than high level assurance. Our assurance work did not cover financial report and other information not related to sustainability.

Conclusions

Based on our methodology and activities performed within the scope of this assurance, we can reach a conclusion that no instances of information came to our attention that would be to the contrary of the statement made as below:

- TP-Link 2023 Sustainability report and its contents adhere to the AA1000 AccountAbility Principles.
- TP-Link has implemented relevant processes to collect and aggregate key performance data related to material issues within the reporting boundary, while the company identifies, evaluates, defines and manages material issues.
- Sustainability information and performance data disclosed in the Report are assessed and supported by documentary evidence.

TÜV Rheinland shall not bear any liability or responsibility to a third party for perception and decision on TP-Link based on this Assurance Statement.

Adherence to the AA1000 AccountAbility Principles

Inclusivity: The key stakeholders identified by TP-Link include shareholders, executives, customers, employees, suppliers, governments and regulators, partners, the public and communities. The company understood opinions and expectations of internal and external stakeholders through routine communication with them during business operations.

Materiality: TP-Link evaluates and ranks material issues from two dimensions: "importance to external stakeholders" and "importance to company", based on policy analysis, SASB industry standards and peer benchmarking, corporate development strategies, internal and external stakeholders, and expert advice. As shown in the matrix, high-importance issues include, but are not limited to, data security and privacy protection, operational compliance and risk management, climate change, occupational health and safety, and sustainable procurement. Materiality issues were reviewed and approved by the Board.

Responsiveness: TP-Link conducts daily communication and communication with its key stakeholders on sustainability issues and responds appropriately and in a timely manner. These communication channels mainly include customer research, customer service, sustainability disclosure, employee training, complaint mechanism, supplier evaluation and training, policy consultation of government and regulatory agencies, industry cooperation and participation initiatives, community philanthropy, etc.

This report discloses the sustainability performance that stakeholders are concerned about, such as greenhouse gas emissions, energy and water management, pollutant emissions, data security and privacy protection, employment management, employee rights and benefits, occupational health and safety, supplier management, etc. During the reporting period, TP-Link joined the United Nations Global Compact (UNGC), the Responsible Business Alliance



(RBA), and the Responsible Minerals Initiative (RMI), and publicly released relevant policies on the company's official website, covering the environment, safety, human rights, sustainable procurement, supplier code of conduct, etc., to demonstrate the company's commitment and actions in the field of sustainable development.

Impact: TP-Link has established a Sustainability Committee and a Sustainability Implementation Team to identify and assess the risks of sustainability to the company's operations, covering key areas such as climate change, environment, occupational health and safety, information security and privacy protection, business ethics and compliance, sustainable procurement and supplier management, and take countermeasures to actively manage these risks. We recommend that TP-Link continuously assess the environmental, social and human impacts of the company's operations and business relationships, and measure and manage these impacts.

Observations and Recommendations for Specified Performance Information

Based on the Type-2 assurance engagement, our observations and recommendations on the reliability and quality of specified performance information are as follows:

- TP-Link has implemented appropriate processes to collect and aggregate specified performance information and data the company selects and discloses in this report within the assurance scope.
- Specified performance data have been verified to be accurate overall. We recommend that TP-Link build a systematic and automated data management system to ensure the accuracy of data statistics and to eliminate the errors of manual calculations.

Daniel Pan

Corporate Sustainability Service Technical Manager
TÜV Rheinland (Shanghai) Co., Ltd.
Shanghai, China, 23 September 2024

