



TPV 冠捷科技
VISION INNOVATOR 用心專注 領航視界

2023

ENVIRONMENTAL, SOCIAL
AND GOVERNANCE REPORT

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Message from Chairman

Corporate Social Responsibility is a crucial indicator for evaluating a company's long-term sustainability. Only by actively embracing social responsibility can we become a truly competitive and resilient company. In 2024, we will make further explorations in ESG (Environmental, Social, and Governance) endeavors as part of our commitment to corporate social responsibility.



Over the past year, the consumer electronics industry has grappled with periodic demand fluctuations and heightened competition amidst the sluggish global economy, numerous trade barriers, and slowing inflation. Faced with rapidly changing internal and external environments, TPV has made every effort to seize opportunities and overcome challenges. While forging ahead, we remain steadfast in fulfilling our commitment to international organizations and initiatives such as the UN Global Compact (UNGC), Responsible Business Alliance (RBA), and Science Based Targets initiative (SBTi). We deeply embed ESG into our corporate sustainability efforts. The road ahead is long and challenging, and TPV must continue to press forward with determination.

We are determined to transform our ESG ambitions into concrete actions and opportunities for advancement

By integrating stakeholder expectations with corporate development, we have launched the "TPV ESG Roadmap to 2030" to capture emerging sustainability prospects. Since 2023, we have been comprehensively promoting an ESG goal management system for closed-loop improvement. With our blueprint in place, we are ready to embark on a voyage toward a brighter future.

In order to enhance our corporate governance, we have linked ESG performance to executive compensation. We organize workshops for directors, supervisors, and senior executives and hold ESG Taskforce meetings to establish a top-down, all-inclusive ESG governance structure. In 2023, we were awarded the Gold Medal for EcoVadis sustainability rating for two consecutive years and were selected for the "Central SOE of China • ESG Pioneer Index" for three consecutive years.

We are confident that we can bring more innovative green display products and solutions for net-zero transition

TPV is committed to taking proactive actions to mitigate and adapt to climate change, and contributing to nature protection and the green transformation of society by providing eco-friendly products and solutions. We pledge to achieve science-based emission reduction targets and incorporate climate-related risks into our daily risk management. Moving forward, we will strive to conceive TPV Net Zero by 2050 in the near future. In 2023, the Company achieved a B rating in CDP Climate Change, demonstrating managerial excellence.

We are dedicated to minimizing our environmental footprint. Following the principles of the circular economy, we strive to reduce product carbon footprints through the innovation of energy-efficient technologies and the application of more recycled and sustainable materials in products and packaging. We are also advancing digital and intelligent transformation while promoting green manufacturing and the use of renewable energy sources. Compared to the base year of 2020, we reduced carbon emissions at the operational level by 34%.

We are committed to promoting ESG development throughout the value chain as an industry leader

Upholding the principle of "Creating Unique Values for Our Customers", TPV deeply integrates into the new landscape of global digital transformation. Focusing on diverse application scenarios including smart office, retail, healthcare, education, transportation, and household environments, we continuously launch high-quality, reliable products and solutions that align with ESG principles.

We are fully aware that our sustainable development is closely related to supply chain ESG management. Therefore, we have integrated ESG criteria into our product and supplier evaluation systems, and established sustainable supply chain strategy and supplier ESG assessment frameworks. In the future, we will continue to promote supply chain ESG management and collaborate with upstream and downstream value chain partners to reduce carbon emissions, thus building a more resilient and sustainable supply chain.

We will adhere to our original intention to continuously spread love and goodness to employees and society

TPV values the happiness and sense of belonging of all employees and strives to build a resilient organization that fosters sustainable prosperity. Embracing equality, diversity, and inclusivity, we have established a safe and healthy workplace and converted our strategic talent advantage into a catalyst for high-quality development.

Over the years, we have consistently given back to the local communities. Leveraging the distinctive features of products and our professional advantages, we have invested constantly in areas such as environmental protection, educational development, community building, and social welfare. We have also created social value together with our partners. In 2023, TPV's donations for public welfare totaled over RMB4 million.

Looking back on the long journey, we remain true to our original aspiration. TPV is deeply convinced that every small action and every joint effort will contribute to achieving our ambitious goal of the "TPV ESG Roadmap to 2030". On behalf of all TPV colleagues, I am eager to join hands with all stakeholders to jointly create a more sustainable and better future! Together, let's forge ahead towards new horizons!

宣建生

Dr. Jason Hsuan

Chairman of the Board & CEO of TPV Technology
Leader of the Risk Management and ESG Committee



2023 ESG Highlights

TPV's ESG Milestones

Gradual inclusion

2016-2019

- Conducted ESG disclosure in compliance with the requirements of the exchanges

All-round construction

2020

- Established the ESG Committee and ESG Taskforce at the Board level
- Joined the UN Global Compact (UNGC)

2021

- Developed the ESG data management platform
- Implemented ESG data assurance for the first time
- Released the ESG report

2022

- Approved for carbon reduction targets by the Science Based Targets initiative (SBTi)
- Joined the Responsible Business Alliance (RBA)
- Awarded the EcoVadis Gold Medal

Anchoring on the goal

2023

- Released the ESG Mission and Vision and TPV ESG Roadmap to 2030 for the first time
- Held ESG Taskforce meeting
- Regranted the EcoVadis Gold Medal

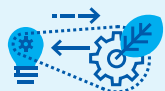
Towards net zero for sustainability 2030-2050.....

2023 ESG Highlights



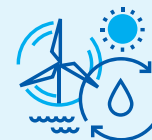
Economy and Governance

- 98.5%** customer satisfaction with after-sales service in China
- Link executive compensation to ESG performance



Society

- 77%** employee satisfaction rate
- 1,497** hours devoted in employee volunteer activities
- 4,028,536** RMB donated for public welfare



Environment

- 34%** reduction of Scope 1 and 2 emissions compared to the base year
- 49%** reduction of Scope 3 - Cat 11 emissions compared to the base year
- Amount of CO₂ reduced, equivalent to **120.95** million trees planted¹
- 11,812** MWh of renewable energy consumption, representing an increase of **49.2%** compared to last year
- 772** low-carbon and energy-efficient products launched

¹ Carbon emission reduction includes Scope 1 & 2, and Scope 3 use of sold products. The calculation of tree planting is based on the research data of the National Forestry and Grassland Administration, a tree can sequester about 18 kg of carbon each year, and this is only used as a reference to show our progress on emission reduction.



Organization and Initiative Memberships



We support the United Nations Sustainable Development Goals (SDGs)



We support the Science Based Targets initiative² (SBTi). Our carbon reduction targets were validated by the SBTi in 2022



We support the UN Global Compact³ (UNGC)



We support the Responsible Business Alliance (RBA)



We support the Responsible Minerals Initiative (RMI)



We support the International Tin Supply Chain Initiative (ITSCI)



We support the Association Connecting Electronics Industries (IPC)



We support and joined the China ESG Alliance in 2024

Awards and Recognition



Awarded EcoVadis Sustainability rating for two consecutive years
Gold Medal



Carbon Disclosure Project (CDP)
Climate Change: B
Water Security: A-



“Central SOE of China • ESG Pioneer 100 Index”
Department of Social Responsibility, State-owned Assets Supervision and Administration Commission (SASAC), State Council of China
28th



Wind ESG Rating
A

- Top 50 of the “Outstanding ESG Cases of Chinese Enterprises”
China Enterprise Reform and Development Society and China Comment of Xinhua News Agency
- The First Guoxin Cup • ESG Golden Bull Award for “Top 50 Central Enterprises”
China Securities Journal
- “China’s ESG Pioneer 100 Listed Companies” list (43rd)
Jointly awarded by China Media Group, State-owned Assets Supervision and Administration Commission of the State Council (SASAC), All-China Federation of Industry and Commerce, and Chinese Academy of Social Sciences
- “2023 Top 100 Chinese Companies for Sustainable Development”
China Business Council for Sustainable Development (CBCSD)

² Please refer to the official website of SBTi.
³ Please refer to the official website of UNGC.



TPV Technology at a Glance

- About TPV
- Products and Solutions

As the world's leading intelligent manufacturer of monitors and LCD TVs, TPV's products connect millions of families and different industries, and our operational footprint spreads all over the world. We uphold the principle of responsible business, committed to providing more sustainable display products and solutions for whole society, and innovate for people's aspirations for better technology.





About TPV

Overview

Founded in Taiwan and represented worldwide, TPV Technology has 12 manufacturing bases in 7 countries across Asia, Europe, and America. As a leading provider of Liquid Crystal Display (LCD) monitors and TVs, TPV Technology distributes products under our own brands AOC, AGON, and Envision and under a long-term exclusive license agreement with Philips for global monitors, TVs, audio-visual products, and mobile phones⁴. Renowned for excellent quality, reliability, and popularity, our products have received various international design prizes such as Red Dot Design Awards, iF Design Award, and the CES Innovation Awards. TPV Technology has long been the world's largest manufacturer and provider of LCD monitors and ranked among top 10 for TV sales, with an annual shipment of over 50 million units, accounting for over 28% of the global market.

Sustainability elements have been incorporated into our operations and management of upstream and downstream value chain. By establishing TPV Technology as a sustainable company, we aim to lead the high-quality, sustainable development and thus fulfill our mission to become a green partner trusted by employees, customers, and the earth.



Our Vision

To become the global leader in display



Our Values



Our Mission

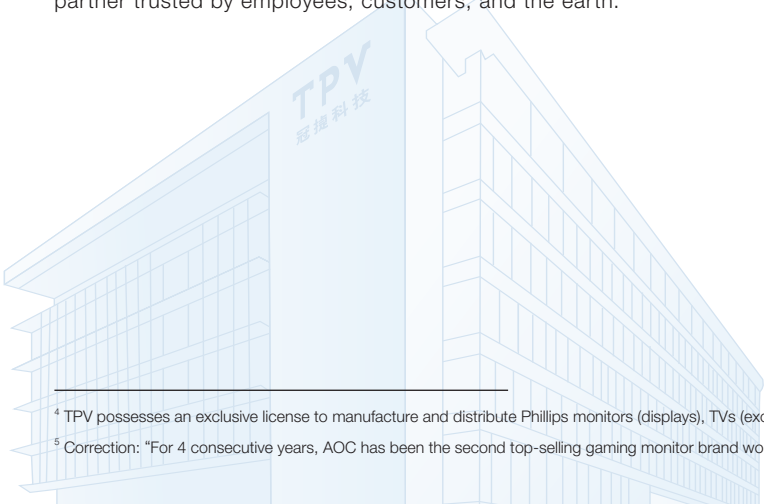
- To create unique values for our customers
- To create valuable opportunities for our employees
- To create sustainable benefits for our shareholders
- To create useful resources for our society

Global Presence and Market Standing

Operating revenue 54,597 million	Manufacturing bases worldwide 12
Innovation & development centers worldwide 8	Sales & service centers worldwide: around 3,500
For 20 consecutive years, TPV has ranked 1st in the global displays market	TPV's market share in the global displays market above 28%
For 7 consecutive years, TPV has ranked in the Top 10 TV market in the world	For 14 consecutive years, AOC has been the top-selling displays brand in China
For 11 consecutive years, Philips has been among the Top 3 display sellers in China	For 5 consecutive years, AOC has been the top-selling⁵ gaming monitor brand worldwide

⁴ TPV possesses an exclusive license to manufacture and distribute Phillips monitors (displays), TVs (except for the United States, Canada, Mexico, and some South American countries), and sound products worldwide.

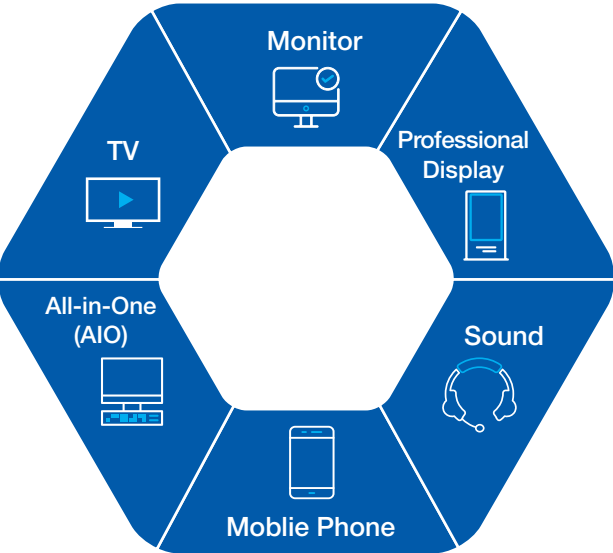
⁵ Correction: "For 4 consecutive years, AOC has been the second top-selling gaming monitor brand worldwide" in the 2022 ESG Report should be "For 4 consecutive years, AOC has been the top-selling gaming monitor brand worldwide".



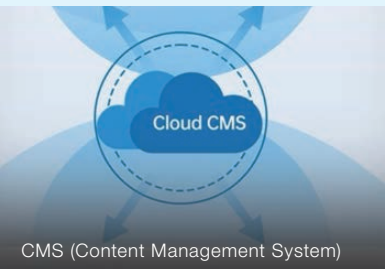
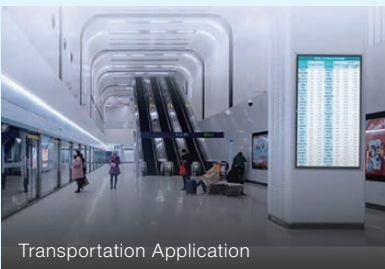


Main Products and Solutions

Our products mainly include monitors, TVs, and audio products. Driven by an ongoing commitment to meeting the needs of customers, we are constantly expanding our product range to cover education, healthcare, e-sports, new retail, transportation, office, and other fields for different customer groups including individual consumers and enterprise customers under various consumption scenarios. Consistent quality excellence and leading technology have earned TPV products recognition from clients, customers and the industry as well as a number of international industrial design awards.




Diverse Application Scenarios







2023 Featured Products


TVs






DESIGN AWARD 2023


Philips OLED 908
iF Design Award 2023 and Red Dot Design Award 2023






Best Product 2023-2024
BEST BUY OLED TV
Philips 55OLED808

Philips 55 OLED 808
Expert Imaging and Sound Association (EISA) Best Buy OLED TV Award








DESIGN AWARD 2023

TPV 42 Baumhaus TV
iF Design Award 2023


Monitors






DESIGN AWARD 2023


AOC Monitor PD 49
iF Design Award 2023 and Red Dot Design Award 2023






DESIGN AWARD 2023

AOC Monitor 16 G3
iF Design Award 2023







reddot winner 2023

AOC AGON OLED Gaming Monitor AG 276
Red Dot Design Award 2023 and Science & Technology Innovation Product Award 2023 of China Video Industry Association

All-in-One Products




AOC All-in-One Master E99 and Master 926 Plus
IT168 "Product of the Year Award 2023"





E-paper Products

Philips Tableaux E-paper series
the Best of Show at Integrated Systems Europe (ISE) 2023, rAVe's Best of ISE Award 2023 and Best of InfoComm Award 2023, the Installation Product Award 2023 of the Systems Contractor News (SCN), the Retail Systems' Sustainable Retail 2023, and the Green Signage Award of the Digital Signage Summit Europe (DSSE)




Sound Products






Best Product 2023-2024
BEST BUY OLED TV
Philips 55OLED808

Philips Fidelio L4 Headphones
Award of the Expert Imaging and Sound Association (EISA), iF Design Award 2023, and Red Dot Design Award





DESIGN AWARD 2023

Philips Fidelio L4 Headphones
iF Design Award 2023



Strengthen ESG Governance

Issues addressed

- ESG Governance

Efficient ESG governance underpins the path of sustainable development. At TPV, we regard ESG as a crucial priority for green transformation and high-quality development. We aim to achieve a new paradigm for sustainable business and create long-term value by continuously improving our ESG governance mechanisms and sharing development outcomes with all stakeholders.

SDGs addressed





Road to Sustainability

TPV's pursuit of sustainable development is guided by the corporate blueprint and underpinned by the four pillars. In 2022, TPV released its inaugural ESG vision and mission and formulated the TPV ESG Roadmap to 2030 aligned with its development strategy. We also systematically outlined the Company's long-term sustainability targets and paths. In 2023, we proactively advanced the realization of the ESG targets outlined in the TPV ESG Roadmap to 2030. We actively managed and addressed the challenges and risks identified and integrated the concept of sustainability deeply into our decision-making processes. This approach has propelled us towards a new journey of high-quality development and green transformation.



Global sustainability context

Challenges

- Intensified global climate crisis, deterioration of ecological environment, and shortage of energy and resource
- Geopolitical instability, increased supply chain risks, and growing inequality

Opportunities

- United Nations 2030 Agenda for Sustainable Development and Sustainable Development Goals (SDGs)
- New market opportunities presented by new energy and AI
- Green and low-carbon transition of the manufacturing industry
- Customer demand for more diverse products
- Global ESG investment strategy drives continuous improvement in the corporates' ESG performance



Our advantages

- Global innovation and R&D network
- Green product design
- Leading manufacturing technology, quality management system and after-sales service capability

- Supply chain stability
- Global talent resources
- Solid corporate governance and ESG management



Our solutions

- Deliver smarter, greener and diverse displays products to meet customers' expectations for a better life through technology
- Low-carbon and clean manufacturing mechanisms throughout product lifecycle

- Contribute to intelligent manufacturing in China and promote high-quality industrial development
- Promote decent employment and local socioeconomic development
- Promote a higher level of global cooperation in the industry value chain



TPV ESG Roadmap to 2030

Drive the future of
green displays



Build a sustainable
value chain



Create a safe and
happy workplace



Foster a healthy and
upright society





TPV ESG Roadmap to 2030



Vision

Better Display, Better life



Mission

Lead in sustainability and become a green partner trusted by employees, customers, and the earth



Four Pillars

Drive the future of green displays
Create a safe and happy workplace
Build a sustainable value chain
Foster a healthy and upright society





TPV ESG Roadmap to 2030 Progress

Drive the Future of
Green Displays



In active progress In slow progress Off track



ESG Issue	Direction	Target	Progress in 2023
Climate & Energy	Science Based Targets (Scope 1 & 2)	By 2030, reduce carbon emissions of Scope 1 & 2 at operational level by 42% from 2020	
	Save energy consumption	By 2025, reduce annual electricity consumption (at global manufacturing bases, main offices and operation sites) by 2.4% from 2021	
	Optimize energy structure	By 2025, ensure that renewable electricity accounts for at least 13% of total electricity consumption (at global manufacturing bases, main offices and operation sites)	
Water Management	Address water challenge	By 2025, maintain annual water withdrawal level at 2021	
Green Product & Packaging	Science Based Targets (Scope 3)	By 2030, reduce carbon emissions of Scope 3 – use of sold products ⁶ by 42% from 2020	
	Reduce energy consumption in product use	By 2025, reduce product energy use of own brand monitors and TVs by 25% from 2020	
	Reduce environmental impact of raw materials	By 2030, use at least 50% of recycled plastic or ocean-bound plastic in own brand products	
		By 2030, use at least 25% of recycled aluminum in aluminum parts of own brand products	
	Reduce environmental impact of packaging	By 2030, use at least 95% of recycled packaging materials in own brand products	
		By 2030, use at least 90% of recycled or FSC ⁷ -certified materials or bio-based materials in packaging of own brand products	
		By 2030, reduce carbon emissions from packaging by 25% for own brands from 2020	
Product Quality & Safety	Promote green logistics	Select low-carbon transportation routes and modes wherever possible, including electrified railroads, cargo ships using low-sulfur fuels, etc.	
	Ensure product quality and safety	Pursuing superior, be the industry leader in quality	
Innovative Development	Improve automation and efficiency	By 2026, increase the automation rate in monitors and TVs by 3% each year	
	Support and promote innovative development	By 2025, adopt at least 300 innovation proposals each year	
		By 2025, maintain 1,000 valid patents worldwide	
		By 2025, have at least 22% of R&D staff with master's or doctor's degrees	

⁶ The product lifetime in the Report is calculated based on industry and product certification standards.

⁷ FSC: Forest Stewardship Council.



Build a Sustainable Value Chain

ESG Issue	Direction	Target	Progress in 2023
Customer Relationship Management	Improve customer experience	By 2025, ensure customer satisfaction with after-sales service no less than 98% in China	
		By 2025, ensure that at least 94% Turn Around Time (TAT) worldwide	
Data Security & Customer Privacy Protection	Strengthen information security management	By 2025, have 5 manufacturing bases worldwide with ISO 27001 Information Security Management System certification	
	Raise information security awareness	Conduct regular vulnerability management and penetration testing of servers and systems each year	
		Conduct regular information security drills at global manufacturing bases, main offices and operation sites each year	
		Conduct one quarterly information security awareness session at global manufacturing bases, main offices and operation sites each year	
		Ensure that all employees participate in at least 1 phishing drill each year, and achieve a <15% click-through rate	
Sustainable Supply Chain	Manage supply chain risks	100% of qualified suppliers sign the TPV CSR Supplier Code of Conduct	
		100% of qualified suppliers sign the Warranty on the Non-Use of Conflict Minerals	
		Conduct conflict minerals survey of 100% of qualified suppliers using metal in production	
		100% of newly introduced suppliers are ISO 14001 and ISO 9001 certified	
		By 2025, require 80% of key suppliers to complete a written ESG survey	
	Promote green supply chain	Gradually promote the third-party on-site RBA audit of monitors and TV suppliers: accumulate 200 suppliers in 2025 and 300 suppliers in 2030	
		By 2025, require key suppliers to provide greenhouse gas (GHG) inventory information	
		By 2025, ensure that at least 90% of buyer receive training on sustainable procurement and environmental protection	
	Strengthen internal and external empowerment	By 2025, ensure that at least 200 suppliers have participated in TPV-organized training	



Create a Safe and Happy Workplace

In active progress

In slow progress

Off track

ESG issue	Direction	Target	Progress in 2023
Occupational Health & Safety	Ensure a healthy and safe workplace	By 2025, have 9 manufacturing bases worldwide certified with ISO 45001 Occupational Health and Safety System	
		Commit to zero work-related fatalities at global manufacturing bases	
Human Rights & Labor Rights	Commit to zero human rights incidents	Zero human rights violations of child and forced labor at global manufacturing bases	
	Increase employee satisfaction	By 2025, ensure that employee satisfaction in China is no less than 75%	
Talent Training & Development	Enhance organizational strengths	By 2025, conduct at least 40 6Sigma training sessions with no less than 900 participants each year	
		By 2025, achieve no less than 36 training hours per employee each year	
		By 2025, increase training hours per employee on ESG topics ⁸ by 5% each year	

Foster a Healthy and Upright Society

In active progress

In slow progress

Off track

ESG issue	Direction	Target	Progress in 2023
ESG Governance	Achieve linkage between executive compensation and ESG performance	Link executive compensation to ESG performance	
	Promote diversity in management	By 2025, ensure female account for at least 26% of senior management and management	
	Organize regular ESG meetings	Organize at least 2 ESG meetings each year	
Supporting Local Communities	Strengthen community engagement	Complete more than 5 charitable donations each year	
		Engage at least 300 employees in community service each year globally	
Business Ethics & Compliance	Handle whistleblowing and complaint	Handle 100% of fraud complaints submitted through official channels	
Risk Management	Conduct internal audit	By 2025, achieve 88% or higher internal audit coverage rate (global manufacturing bases, main offices and operation sites)	

⁸ ESG topics include business ethics, occupational health and safety, climate change mitigation, etc.

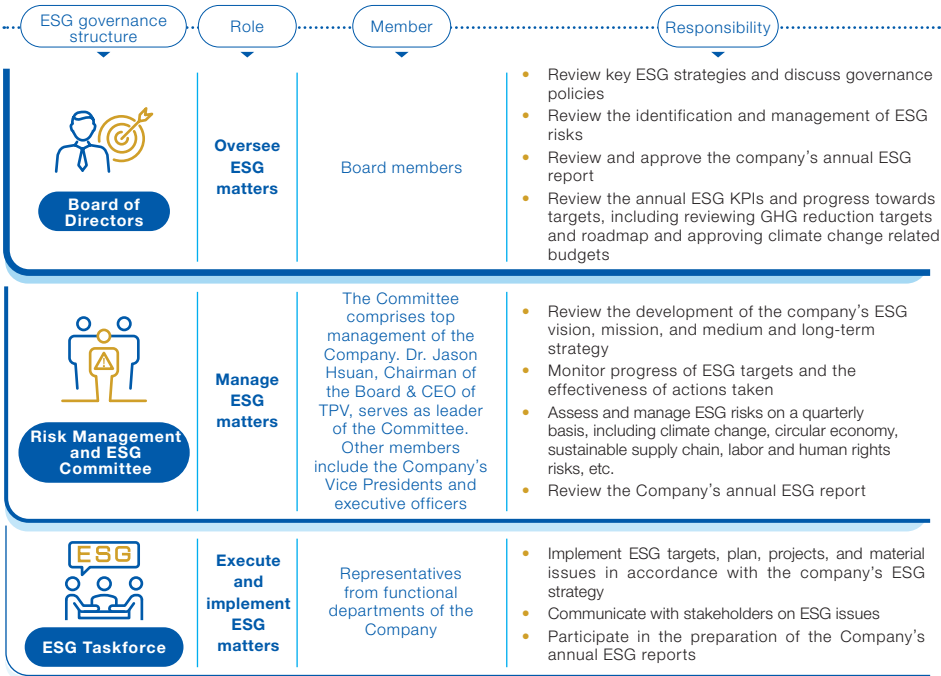


Foundation of Sustainability

The TPV ESG Roadmap to 2030 sets higher demands for TPV’s sustainable governance. We continuously enhance our ESG governance framework and management mechanisms. We have established a target management system focused on the “TPV ESG Roadmap to 2030”, advanced closed-loop improvements in ESG management and performance, as well as enhanced internal recognition and executive capabilities of ESG principles. By doing so, we collaborate with all stakeholders to create sustainable value together.

ESG Governance Structure

TPV has established a three-level governance structure consisting of the “Board of Directors, the Risk Management and ESG Committee, and the ESG Taskforce”. Each level has clear responsibilities to ensure that TPV fully considers the potential impacts, risks, and opportunities of environmental, social, and corporate governance factors in its business decision-making processes.



Holding the first ESG workshop for directors, supervisors, and senior executives to strengthen ESG governance

TPV has made multiple efforts to advance sustainable transformation. These efforts include fulfilling the key responsibilities of the directors, supervisors, and senior executives in corporate ESG governance, enhancing capacity building and knowledge reserves, as well as boosting business operations and management.

In September 2023, TPV organized its first ESG workshop for directors, supervisors, and senior executives. The workshop invited seasoned ESG industry experts to share views on key topics such as ESG concepts and development, ESG investment and financing markets, the role of the Board of Directors in ESG governance, as well as TPV’s key ESG issues. Dr. Jason Hsuan, Chairman of the Board, CEO, and the Leader of the Risk Management and ESG Committee, attended the workshop with the presence of the directors, supervisors, and senior executives. During the event, all participants delved deep into each topic and engaged in lively and extensive discussions.



ESG Workshop for Directors, Supervisors, and Senior Executives

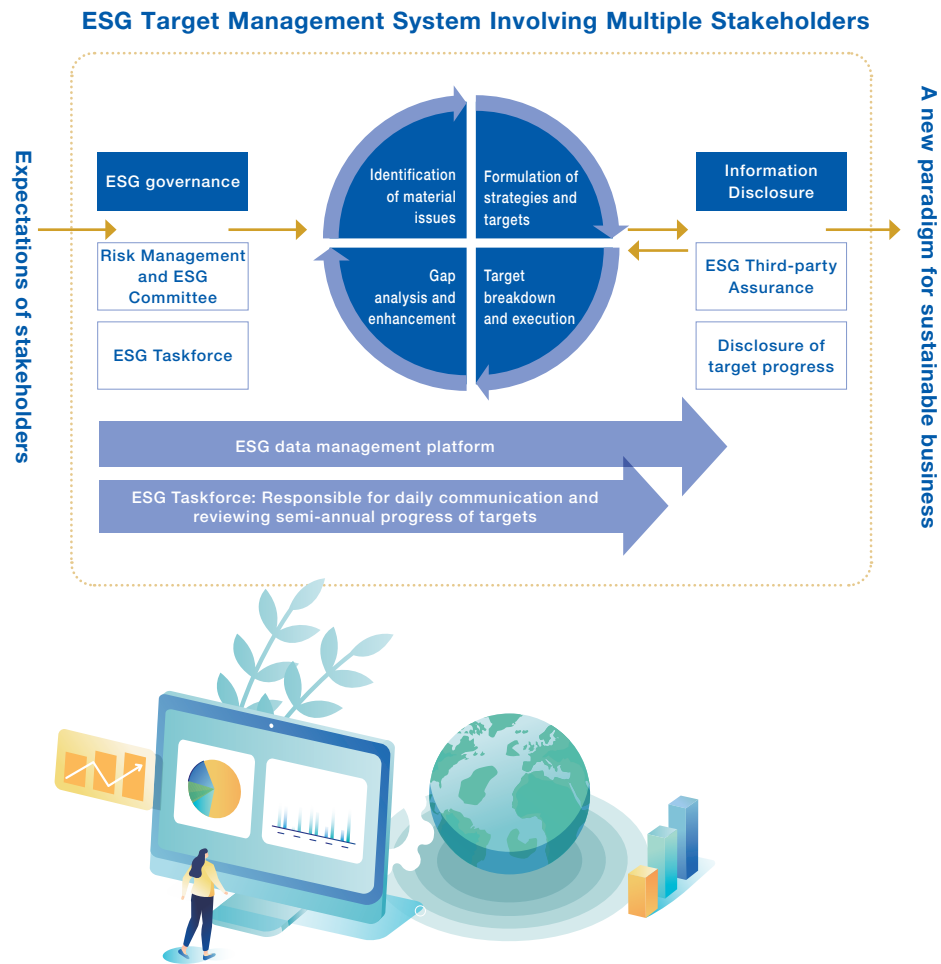
Linking Executive Compensation to ESG Performance

To effectively implement the Company’s ESG strategy, TPV has been actively exploring the linkage between ESG performance and compensation. We started by linking executive compensation to ESG performance. Material ESG issues involved include violations of human rights in the Company and its supply chain (including but not limited to child labor and forced labor), as well as carbon emissions at operational and value chain levels. These critical ESG performance factors may affect up to 15% of the performance bonuses for senior executives. In the future, we will consider optimizing relevant systems based on actual conditions and improving the ESG performance assessment for both the Board of Directors and junior management.



ESG Target Management System

With the TPV ESG Roadmap to 2030 as the benchmark and core, we have established an ESG target management mechanism involving multiple stakeholders. This is a comprehensive and practical ESG framework that is tailor-made and ahead of our peers. By virtue of the framework, we have transformed the expectations of various stakeholders into requirements for self-improvement in management. Driven by management improvements in pursuit of our goals, we aim to steer the Company towards high-quality development and green transformation.



In August 2023, the Risk Management and ESG Committee held the ESG Taskforce Meeting to review and discuss the semi-annual progress of each target outlined in the TPV ESG Roadmap to 2030. During this meeting, the ESG team presented the purposes and latest requirements of ESG disclosure to all participants. They also answered colleagues' questions regarding material ESG issues and further elaborated on the potential corporate risks of neglecting ESG through negative cases. Additionally, they highlighted the possibilities of exploring new business opportunities through ESG initiatives, as well as clarified shared targets and directions.



Investigations Before and After the Meeting

Dimensions of investigation	Changes in the level of understanding
Responsibilities of the three-level ESG governance structure	45.89% ↑
ESG vision and mission	45.89% ↑
ESG Roadmap to 2030	39.79% ↑
Objectives and requirements of ESG disclosure	23.61% ↑

In 2023, we held **2** ESG management meetings

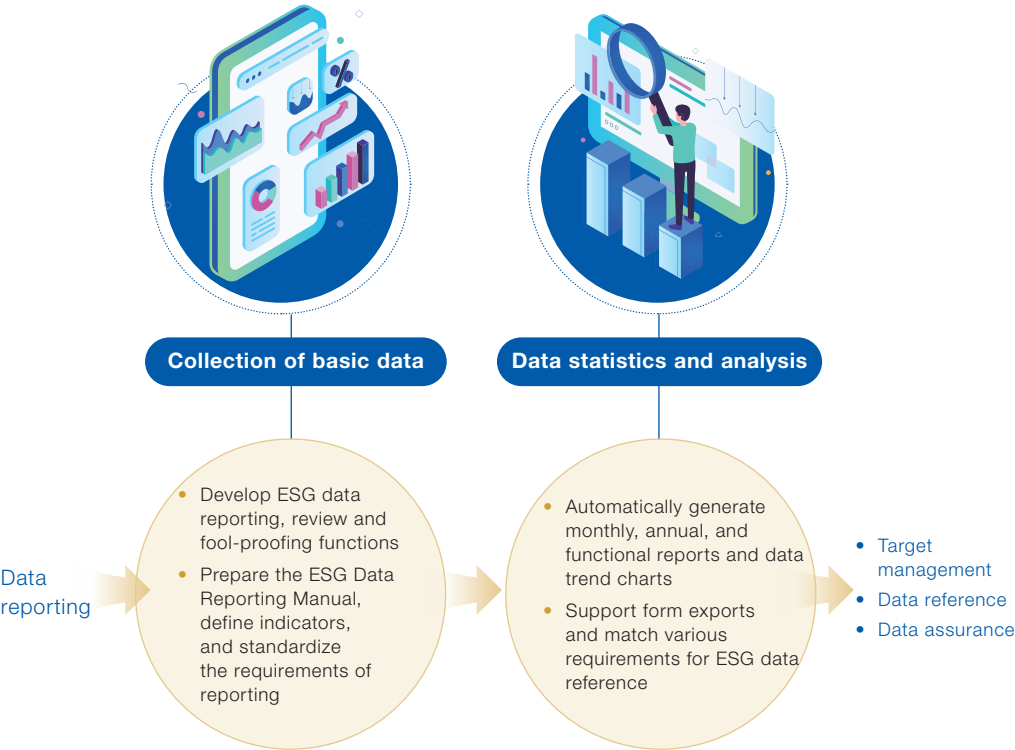
with over **150** attendees





ESG Data Management

TPV insists on empowering ESG management through digital tools. We have achieved online management and traceability of ESG data through the self-developed ESG Platform, thus significantly enhancing efficiency and decision-making support in ESG management. Since the launch of the ESG Platform in 2022, we have been updating the platform annually based on company needs, user feedback, and standard updates to continuously improve ESG data management. In 2023, we launched ESG Platform 2.0. The upgrade aims to further enhance data coverage and visualization, facilitate ESG disclosure, and complement the ESG target management system in a closed-loop manner.



New features of ESG Platform 2.0

- Add 28 new ESG report indicators to increase indicator coverage;
- Add monthly and annual trend tracking functions for each indicator;
- Add a Management Portal covering key ESG indicators such as SBTi target, electricity consumption reduction, use of renewable energy, and water withdrawal, to display progress of each target in real-time;
- Add the generation of department monthly report, etc.










Stakeholder Engagement

Effective stakeholder engagement forms a cornerstone for effective target management and the creation of shared value. TPV proactively establishes diverse and open channels for communication with various stakeholders. Through these channels, we not only deliver the company's latest development strategy but also actively listen to their concerns and expectations. Moreover, we dynamically incorporate stakeholder feedback into our sustainability strategy and management mechanisms.

2023 TPV Stakeholder Engagement

Stakeholders	Issues of Interest		Communication Channels and Frequency	
 Employees	<ul style="list-style-type: none"> Human Rights & Labor Rights Occupational Health & Safety Talent Training & Development Talent Attraction & Retention 	<ul style="list-style-type: none"> Diversity, Equality and Inclusion Product Quality & Safety Sustainable Supply Chain 	<ul style="list-style-type: none"> Employee satisfaction survey (annual) Comment box (real-time) Communication sessions at all levels (irregular) 	<ul style="list-style-type: none"> Employee activities and training (irregular) ESG questionnaire (annual) ESG question (semi-annual/annual)
 Clients or customers	<ul style="list-style-type: none"> Product Quality & Safety Customer Relationship Management Data Security & Customer Privacy Protection 	<ul style="list-style-type: none"> Corporate Emergencies/Public Crisis Management Green Product & Packaging Circular Economy Use of Renewable Energy 	<ul style="list-style-type: none"> Employee satisfaction survey (annual) Call Center (real-time) 	<ul style="list-style-type: none"> Executive visits and Quarterly Business Review (QBR) (quarterly) Routine customer communication and meetings (irregular)
 Shareholders or potential investors	<ul style="list-style-type: none"> Risk Management Business Ethics & Compliance ESG Governance Innovative Development & Intellectual Property Protection Corporate Emergencies/Public Crisis Management 	<ul style="list-style-type: none"> Investor Relations & Shareholder Rights Communications & Transparency Product Quality & Safety Human Rights & Labor Rights Collaboration with Business Partners 	<ul style="list-style-type: none"> General meeting of shareholders (annual) Investor conference and roadshows (annual) Hotline (real-time) Interactive transaction on Shenzhen Stock Exchange (real-time) WeChat official account (irregular) 	<ul style="list-style-type: none"> Exchange of minority shareholders (irregular) TPV website (real-time) Annual financial report (annual) Annual ESG report (annual)
 Suppliers or business partners	<ul style="list-style-type: none"> Sustainable Supply Chain Climate & Energy Collaboration with Business Partners Conflict Minerals Management 	<ul style="list-style-type: none"> Product Quality & Safety Green Products & Packaging Innovative Development & Intellectual Property Protection 	<ul style="list-style-type: none"> Supplier meeting (irregular) On-site audit (annual) Supplier training (annual) 	<ul style="list-style-type: none"> Supplier conference (annual) Industry exchanges (irregular) Routine communication and visits (irregular)
 Community and the public	<ul style="list-style-type: none"> Community Engagement & Contribution Communication & Transparency Climate & Energy Emissions Management 	<ul style="list-style-type: none"> Biodiversity Product Quality & Safety Data Security & Customer Privacy Protection 	<ul style="list-style-type: none"> Government engagement (irregular) Charitable activities (irregular) Volunteering service (irregular) 	<ul style="list-style-type: none"> TPV Cares⁹ (irregular) Rural revitalization projects (irregular)

⁹ TPV's Overseas Community Care Program. For more information, please refer to the TPV Cares website.



TPV expects to spread the values and impact of ESG through communication between internal and external stakeholders. Through involving our employees and industry partners, we strive to contribute to the construction of a sustainable development ecosystem in China.



Sharing ESG experience to facilitate the sustainable development of the industry

In recent years, China has stepped up efforts to establish ESG systems. In June 2023, TPV was invited to participate in a training and exchange meeting on the preparation of ESG reports for central state-owned listed companies (Shenzhen session) by the Shenzhen Stock Exchange. As a representative of outstanding enterprises, TPV shared its cutting-edge practices in ESG information disclosure, integrating the ESG concept into the top-level design, and establishing a top-down ESG management structure. The aim was to provide experience and reference for improving ESG management and performance of central state-owned listed companies.

In November 2023, TPV was invited to participate in the "2023 Corporate ESG Hot Topic Forum and IPC-1401 CSR Management System Standard Technical Committee Conference". During the event, TPV shared its experience and practices in responding to multiple ESG requirements in the international market and its own ESG management.



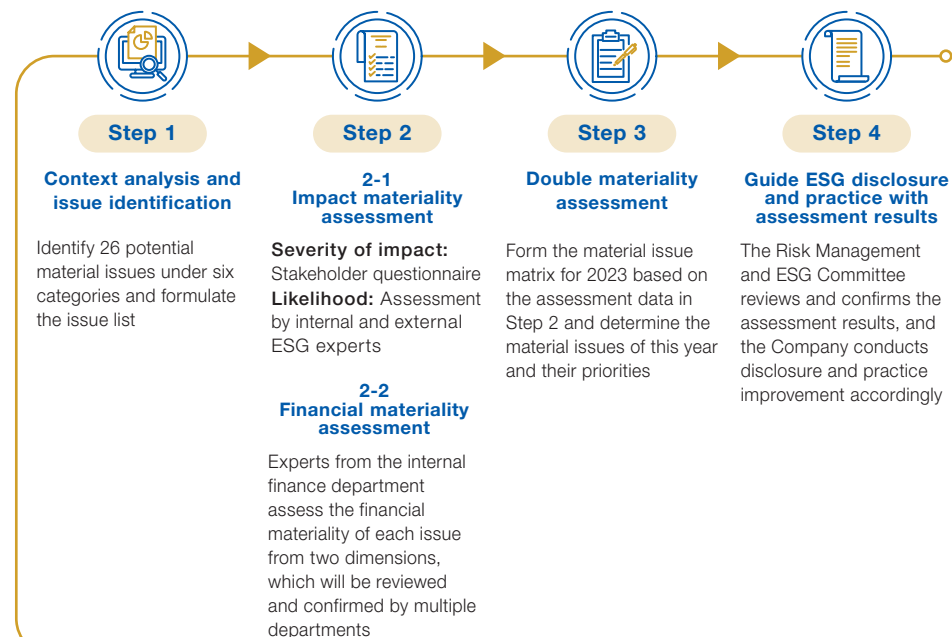
Sharing leading ESG Experience

Materiality Assessment

TPV prioritizes regular materiality assessment as the foundation and core of its ESG strategic planning, risk and opportunity management, and information disclosure. In 2023, we conducted a double-materiality assessment for the first time by integrating financial perspectives into the existing impact materiality assessment in accordance with the latest international disclosure standards such as the *GRI 3: Material Topics*, the *European Sustainability Reporting Standards (ESRS)*, and the *General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1)*. This assessment involved the viewpoints of multiple departments and 1,060 stakeholders, thoroughly analyzing the impact of ESG issues on the corporate finance, as well as its economic, environmental, and social aspects. A total of 22 identified material issues are addressed in detail in this Report.

Double Materiality Assessment Method

Double Materiality Assessment Process of TPV in 2023





Step 1: Context analysis and issue identification

In the process of identifying the material issues in 2023 and forming the issue list, TPV fully considers the following six types of factors:

1

ESG standards
The *Reference Index System for ESG Report of Central Holding Listed Companies* issued by the SASAC of the State Council, GRI Standards, Task Force on Climate-related Financial Disclosures (TCFD), ESRS, International Sustainability Standards Board (ISSB) IFRS S1, etc.

2

ESG rating requirements
EcoVadis Sustainability Rating, S&P Corporate Sustainability Assessment (CSA), CDP Rating, MSCI ESG Rating, Morningstar Sustainalytics ESG Ratings, etc.

3

International initiatives
United Nations Sustainable Development Goals (SDGs), Ten Principles of the United Nations Global Compact (UNGCG), Responsible Business Alliance (RBA) Code of Conduct, 28th United Nations Climate Change Conference (COP28), Organisation for Economic Co-operation and Development (OECD) Due Diligence Guidance for Responsible Business Conduct, etc.

4

Global economy and macro policy trends
China's 14th Five-Year Plan and Long-Range Objectives Through the Year 2035, Carbon Peak and Carbon Neutrality ("3060" Target), *Implementation Plan for Promoting Green Consumption*; the Carbon Border Adjustment Mechanism (CBAM), the Clean Competition Act (CCA), etc.

5

Market trends
Sustainability issues have been concerned by consumers, and brand companys deliver their sustainability requirements into the value chain

6

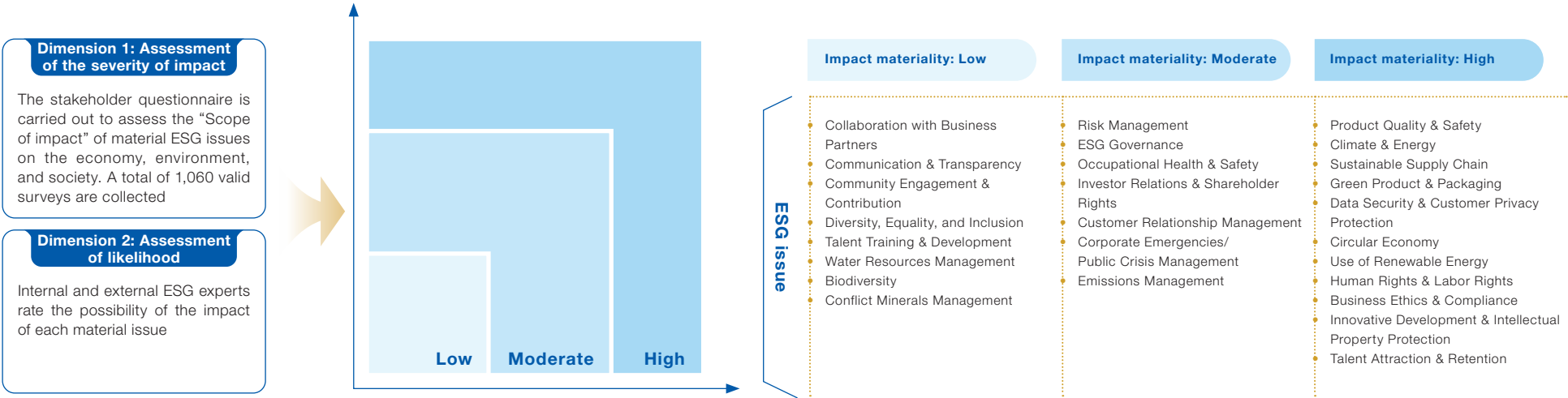
Corporate strategies and development plans
TPV ESG Roadmap to 2030 for high-quality development

Issue List of 2023					
Scope of Issue	Name of Issue				Change Compared with the Previous Year
 Environmental issues (7)	<ul style="list-style-type: none">Climate & EnergyCircular EconomyUse of Renewable Energy	<ul style="list-style-type: none">Water Resources ManagementEmissions ManagementBiodiversity	<ul style="list-style-type: none">Green Product & Packaging		<ul style="list-style-type: none">"Sewage and Waste Management" is changed to "Emissions Management" to broaden the scope of the issue
 Social issues (12)	<ul style="list-style-type: none">Product Quality & SafetySustainable Supply ChainCustomer Relationship Management	<ul style="list-style-type: none">Collaboration with Business PartnersTalent Attraction & RetentionOccupational Health & Safety	<ul style="list-style-type: none">Human Rights & Labor RightsDiversity, Equality, and InclusionTalent Training & Development	<ul style="list-style-type: none">Conflict Minerals ManagementCommunity Engagement & ContributionCommunication & Transparency	<ul style="list-style-type: none">"Diversity & Inclusion" is changed to "Diversity, Equality, and Inclusion" to align closely with the widely recognized principles in the international community"Supporting Local Communities" is changed to "Community Engagement & Contribution" to broaden the scope of the issue
 Governance issues (7)	<ul style="list-style-type: none">ESG GovernanceBusiness Ethics & ComplianceRisk Management	<ul style="list-style-type: none">Data Security & Customer Privacy ProtectionInnovative Development & Intellectual Property ProtectionCorporate Emergencies/Public Crisis Management	<ul style="list-style-type: none">Investor Relations & Shareholder Rights		<ul style="list-style-type: none">"Innovative Development" is changed to "Innovative Development & Intellectual Property Protection" to emphasize the importance of intellectual property management to corporate innovation and thus broaden the scope of the issue"Investor Relations & Shareholder Rights" is added as a new issue. Managing investor relations is a critical factor affecting the long-term development of a company. TPV also places great importance on protecting the rights of investors and shareholders

In this Report, "risks" are categorized as broad risks and narrow risks. Broad risks refer to the double materiality assessment of potential sustainability-related risks that the Company faces in its value chain, including but not limited to climate change, biodiversity, human rights & labor rights, and sustainable supply chain. Please refer to the corresponding section for details. Narrow risks pertain to the risks managed internally by the Company. They are defined as key business risks identified and controlled by the Enterprise Risk Management (ERM) system and procedures. This category of risks consists of business/strategic risk, operational risk, financial and reporting risk, as well as compliance and regulatory risk. Please refer to Section 6.2 "Risk Management" for details.

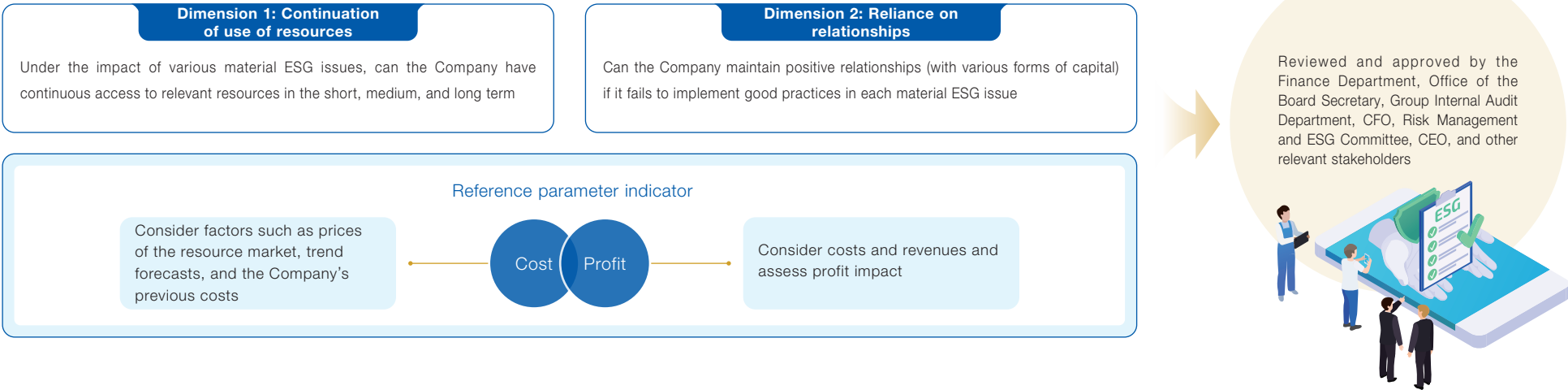


Step 2-1: Impact materiality assessment



Step 2-2: Financial materiality assessment

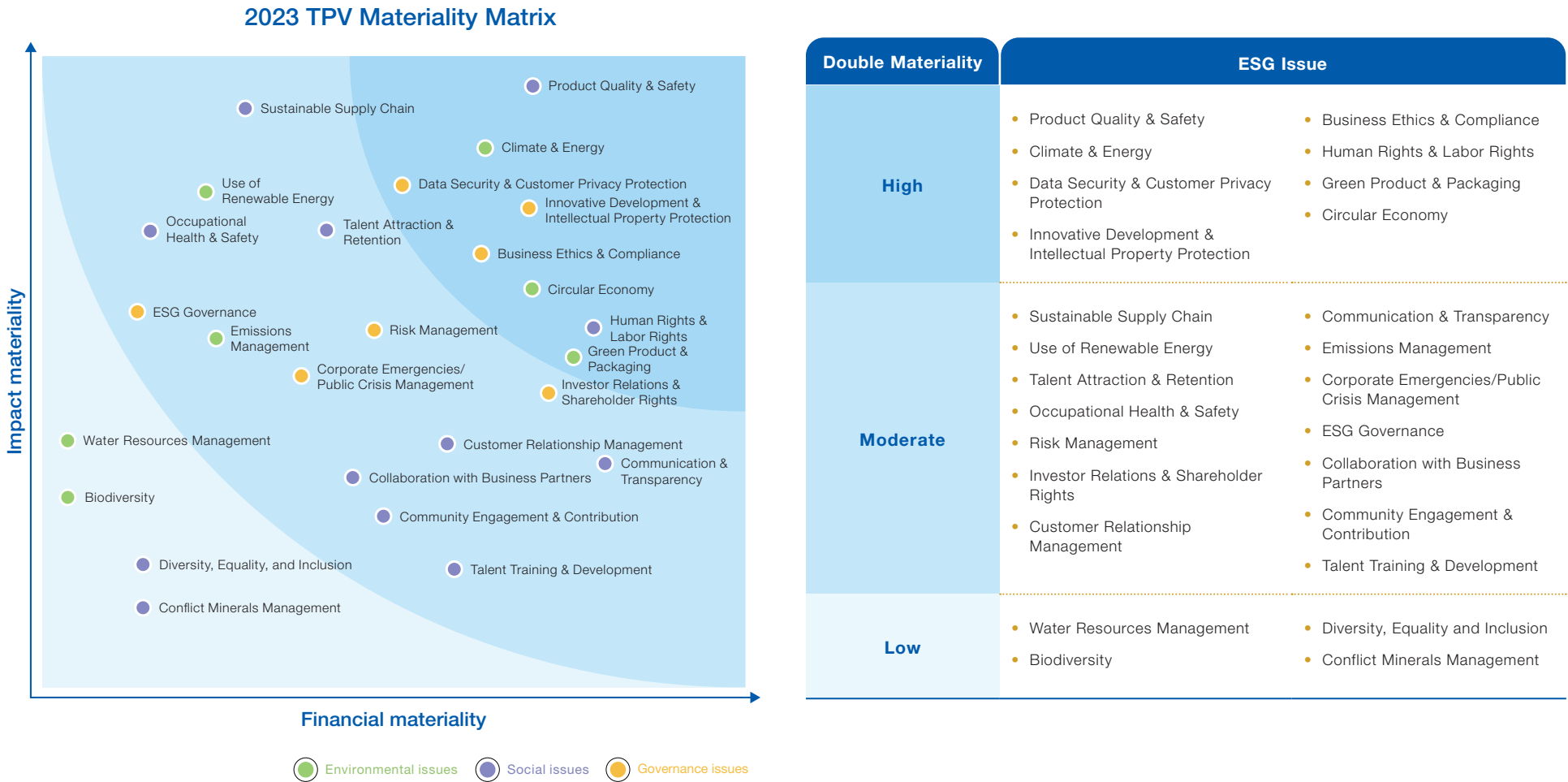
Internal financial experts evaluate the financial materiality of each topic based on two dimensions, namely "Continuation of use of resources" and "Reliance on relationships".





Step 3: Double materiality assessment

TPV conducts quantitative analysis based on the assessment results of impact materiality and financial materiality. We also prioritize the materiality of each issue in the form of matrix. We have identified a total of 22 material issues, including 8 issues with a higher level of double materiality.





Step 4: Guide disclosure and practices with assessment results

The TPV Risk Management and ESG Committee has reviewed and approved the materiality matrix for 2023. For issues of high and moderate materiality, we comprehensively summarized their scope of impact, risks and opportunities, and the affected stakeholders. Relevant management and actions were disclosed in the Report. At the practice level, TPV has also strengthened overall management of each issue. Leveraging our risk management and internal control systems, we have rigorously controlled associated risks while actively seizing opportunities to achieve long-term development.

Materiality Issues ¹⁰	Scope of Impact				Stakeholder Affected	Risks	Opportunities	Impact Duration	GRI Standards Alignment	Corresponding SDGs	Location in the Report
	Upstream Value Chain	Enterprise Operations	Downstream Value Chain	Communities							
Climate & Energy	✓	✓	✓	✓	<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners Shareholders or potential investors Communities and the public 	<ul style="list-style-type: none"> The trends such as natural disasters caused by climate change, instability of energy supply, policy updates, and changes in market preferences bring physical and transition risks to TPV. These risks may increase expenditure, affect profits, and cause loss to fixed assets 	<ul style="list-style-type: none"> Enhance the corporate resilience to environmental risks and reduce its carbon footprint Innovate sustainable business development models, enhance corporate reputation and image, and improve market competitiveness 	Medium to long term	<ul style="list-style-type: none"> Energy Emissions 		Addressing Climate Change
Circular Economy	✓	✓	✓	✓	<ul style="list-style-type: none"> Customers or consumers Suppliers or other business partners Communities and the public 	<ul style="list-style-type: none"> The innovation or application of circular technologies may entail additional financial and human resource costs 	<ul style="list-style-type: none"> Reduce the cost of resource use in the long term Innovate sustainable business development models, enhance corporate reputation and image, and improve market competitiveness 	Medium to long term	<ul style="list-style-type: none"> Waste 		Circular Economy
Green Product & Packaging	✓	✓	✓		<ul style="list-style-type: none"> Customers or consumers Suppliers or other business partners 	<ul style="list-style-type: none"> The development of eco-friendly products or adoption of green packaging may incur additional financial costs 	<ul style="list-style-type: none"> Create a product system that complies with domestic and international green product design standards and certifications, better overcome global green barriers, and develop potential new markets Meet the growing demand for green products from consumers and enhance the market competitiveness 	Medium to long term	<ul style="list-style-type: none"> Materials Water & Effluents 	 	Green Product & Packaging Circular Economy
Use of Renewable Energy	✓	✓			<ul style="list-style-type: none"> Customers or consumers Suppliers or other business partners 	<ul style="list-style-type: none"> The procurement of renewable energy and construction of photovoltaic facilities may incur additional financial costs 	<ul style="list-style-type: none"> Reduce reliance on fossil fuels and mitigate the risk of energy supply instability Enhance the corporate resilience to environmental risks and reduce its carbon footprint 	Medium to long term	Non-double materiality issues		Addressing Climate Change Energy Management
Emissions Management		✓	✓	✓	<ul style="list-style-type: none"> Customers or consumers Communities and the public 	<ul style="list-style-type: none"> Violations of emissions management related laws and regulations may result in compliance risks, and financial losses such as penalties, and affecting corporate reputation and image 	<ul style="list-style-type: none"> Improve environmental management, reduce environmental impact, comply with relevant laws and regulations, and enhance corporate reputation and image 	Short term	Non-double materiality issues		Emissions Management

¹⁰ The high-level double materiality issues in this row are highlighted.



Materiality Issues	Scope of Impact				Stakeholder Affected	Risks	Opportunities	Impact Duration	GRI Standards Alignment	Corresponding SDGs	Location in the Report
	Upstream Value Chain	Enterprise Operations	Downstream Value Chain	Communities							
Product Quality & Safety	✓	✓	✓	✓	<ul style="list-style-type: none"> Customers or consumers Suppliers or other business partners 	<ul style="list-style-type: none"> Enhanced product testing and inspection may result in additional financial and human resource costs 	<ul style="list-style-type: none"> Deliver better experience to customers, enhance the corporate reputation and image, and better develop potential markets 	Long term	<ul style="list-style-type: none"> Customer Health & Safety 		Product Quality & Safety
Innovative Development & Intellectual Property Protection	✓	✓	✓		<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners Shareholders or potential investors 	<ul style="list-style-type: none"> Technological innovation and intellectual property protection may entail higher financial and human resource costs 	<ul style="list-style-type: none"> Enhance the corporate competitiveness and industrial leadership in the long term Consumer-oriented technological innovation helps the Company adapt more flexibly to trends in consumer market development and improve market performance 	Long term /			Innovative Development & Intellectual Property Protection
Data Security & Customer Privacy Protection	✓	✓	✓	✓	<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners 	<ul style="list-style-type: none"> Data and customer privacy breaches will violate related laws and regulations, leading to compliance risks and financial losses such as penalties. Additionally, it would have a negative impact on customer rights and decrease their trust in the Company, thereby affecting the corporate reputation and image 	<ul style="list-style-type: none"> Stay in compliance with relevant laws and regulations, safeguard customers rights, and maintain trust between the Company and its customers 	Medium to long term	<ul style="list-style-type: none"> Customer Privacy 		Data Security & Customer Privacy Protection
Customer Relationship Management		✓			<ul style="list-style-type: none"> Customers or consumers Shareholders or potential investors 	<ul style="list-style-type: none"> Deterioration of customer relationship may lead to customer churn, thereby impacting the Company's market performance 	<ul style="list-style-type: none"> Positive customer relationship facilitates business growth, foster new business opportunities, and enhances the Company's market performance 	Long term	Non-double materiality issues	 	Customer Relationship Management
Sustainable Supply Chain	✓	✓	✓		<ul style="list-style-type: none"> Suppliers or other business partners Customers or consumers Shareholders or potential investors 	<ul style="list-style-type: none"> ESG risks in the supply chain, such as environmental violations, corruption, and human rights, may result in supply instability, thereby affecting the Company's business operations Providing sustainable empowerment for the supply chain, such as training, may incur additional financial and human resource costs 	<ul style="list-style-type: none"> Building a sustainable supply chain helps to enhance the stability of product and service supply, promoting the healthy development of supply chain enterprises 	Medium to long term	Non-double materiality issues	 	Sustainable Supply Chain
Collaboration with Business Partners	✓	✓	✓		<ul style="list-style-type: none"> Customers or consumers Suppliers or other business partners 	<ul style="list-style-type: none"> Deterioration of relationship with business partners may result in the loss of collaboration opportunities 	<ul style="list-style-type: none"> Positive business partnerships facilitate the creation of new business opportunities, enhance the corporate influence in the industry, and shape a leading corporate image 	Medium to long term	Non-double materiality issues		Collaboration in Value Chain



Materiality Issues	Scope of Impact				Stakeholder Affected	Risks	Opportunities	Impact Duration	GRI Standards Alignment	Corresponding SDGs	Location in the Report
	Upstream Value Chain	Enterprise Operations	Downstream Value Chain	Communities							
Human Rights & Labor Rights	✓	✓	✓		<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners 	<ul style="list-style-type: none"> Violations of human rights and labor rights may result in compliance risks and damage to the corporate reputation and image The lack of protection for employee rights may lead to the risk of employee turnover, thereby reducing corporate productivity 	<ul style="list-style-type: none"> Ensuring human rights and labor rights helps to enhance employee satisfaction, maintain relations with employees, and boost corporate productivity Reduce risks related to the supply chain and shape a responsible corporate image 	Medium to long term	<ul style="list-style-type: none"> Employment Diversity and Equal Opportunity Non-discrimination Freedom of Association and Collective Bargaining Child Force Forced or Compulsory Labor 	 	Human Rights & Labor Rights
Talent Attraction & Retention		✓			<ul style="list-style-type: none"> Employees 		<ul style="list-style-type: none"> Introducing diverse talents and maintaining team stability contribute to promoting the Company's steady development 	Medium to long term	Non-double materiality issues		Talent Training & Development
Talent Training & Development		✓			<ul style="list-style-type: none"> Employees 	<ul style="list-style-type: none"> Ineffective talent recruitment, talent attrition, and insufficient skill growth among employees will all lead to reduce corporate productivity. 	<ul style="list-style-type: none"> Growth of employee skills helps to better adapt to rapidly changing business environments, and enhance the Company's market competitiveness 	Medium to long term	Non-double materiality issues	 	Talent Training & Development
Occupational Health & Safety	✓	✓	✓		<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners 	<ul style="list-style-type: none"> Occupational health and safety accidents directly affect employees, thereby undermining the Company's relationship with them Violations of relevant laws and regulations may result in financial penalties and affect corporate reputation and image Ensuring occupational health and safety may entail additional financial costs 	<ul style="list-style-type: none"> A healthy and safe workplace contributes to enhancing employees' sense of well-being, belonging, and productivity within the Company 	Medium to long term	Non-double materiality issues	 	Occupational Health & Safety
Community Engagement & Contribution		✓		✓	<ul style="list-style-type: none"> Employees Communities and the public 	<ul style="list-style-type: none"> The lack of community engagement may affect corporate reputation and image Organizing community engagement activities or community donations may entail additional financial and human resource costs 	<ul style="list-style-type: none"> Harnessing the power of businesses helps to reduce operational costs of society, promote high-quality social development, and indirectly shape a healthier and more efficient business development environment 	Long term	Non-double materiality issues		Supporting Local Communities



Materiality Issues	Scope of Impact				Stakeholder Affected	Risks	Opportunities	Impact Duration	GRI Standards Alignment	Corresponding SDGs	Location in the Report
	Upstream Value Chain	Enterprise Operations	Downstream Value Chain	Communities							
Business Ethics & Compliance	✓	✓	✓		<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners Shareholders or potential investors 	<ul style="list-style-type: none"> Violations of business ethics and compliance requirements may result in legal issues, sanctions, financial losses, reputation damage, as well as the loss of customers and investors 	<ul style="list-style-type: none"> Maintaining high-level business ethics and compliance can increase trust among customers and investors, enhance reputation, and reduce legal and financial risks 	Long term	<ul style="list-style-type: none"> Anti-corruption 		Business Ethics and Compliance
ESG Governance	✓	✓	✓		<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners Shareholders or potential investors 	<ul style="list-style-type: none"> The limitations in ESG governance may affect the overall sustainable development of the Company, such as ESG compliance, maintenance of investor relations, and response to climate change 	<ul style="list-style-type: none"> Strengthening ESG governance contributes to enhancing the overall corporate governance, fostering internal cohesion, maintaining positive relationships with external stakeholders, reducing ESG risks, and promoting the sustainable development of the Company 	Medium to long term	Non-double materiality issues		Road to Sustainability Foundation of Sustainability
Communication & Transparency	✓	✓	✓	✓	<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners Shareholders or potential investors Communities and the public 	<ul style="list-style-type: none"> Lack of transparency and effective communication may reduce stakeholders' understanding and trust in the Company, hindering relationship maintenance 	<ul style="list-style-type: none"> Improving communication and transparency helps to build trust, attract potential business opportunities, and enhance corporate reputation and influence. 	Long term	Non-double materiality issues		Stakeholder Engagement
Risk Management	✓	✓	✓		<ul style="list-style-type: none"> Employees Customers or consumers Suppliers or other business partners Shareholders or potential investors 	<ul style="list-style-type: none"> Incomplete risk management may reduce the Company's overall ability for risk response, resulting in financial losses, legal issues, and reputation risks 	<ul style="list-style-type: none"> A robust risk management system can effectively enhance the corporate resilience in the risk environment 	Medium to long term	Non-double materiality issues		Risk Management
Corporate Emergencies/ Public Crisis Management	✓	✓	✓	✓	<ul style="list-style-type: none"> Customers or consumers Suppliers or other business partners Shareholders or potential investors Communities and the public 	<ul style="list-style-type: none"> The lack of an emergency management plan may lead to failure in crisis response, resulting in serious damage to business development and reputation 	<ul style="list-style-type: none"> A robust emergency management plan enables promptly responding to crises, mitigating losses, and safeguarding reputation 	Short term	Non-double materiality issues		Risk Management
Investor Relations & Shareholder Rights		✓			<ul style="list-style-type: none"> Shareholders or potential investors 	<ul style="list-style-type: none"> Neglecting investor relations may result in information asymmetry, stock price volatility, and shareholder dissatisfaction, potentially affecting the Company's ability to attract investments and its profitability 	<ul style="list-style-type: none"> Positive investor relations can improve transparency, enhance investor trust, stabilize stock prices, and promote profit growth 	Medium to long term	Non-double materiality issues		Sound Governance



Drive the Future of Green Displays

Issues addressed

- Climate & Energy
- Use of Renewable Energy
- Emissions Management
- Green Product & Packaging
- Circular Economy
- Innovative Development & Intellectual Property Protection
- Product Quality & Safety
- Biodiversity Protection

The degradation of the global environment, exacerbation of the climate crisis, and other related issues have led to sustained damage to economic development and the overall well-being of humanity. TPV Technology proactively responds to international and governmental strategies and action plans aimed at addressing climate change. We are dedicated to reducing our carbon footprint across our global operations and value chain, innovating high-quality sustainable products for society, and fostering harmonious coexistence between technology and nature.

SDGs addressed








Addressing Climate Change

TPV has always regarded addressing climate change as an undeniable responsibility. We have prioritized climate issues at the governance level, made public commitment to ambitious carbon reduction goals, and gradually improved our climate risk management mechanisms. Since 2022, we have been identifying climate risks and opportunities with reference to the TCFD framework, based on which we provide detailed disclosures and review targets. Our aim is to address climate risks more efficiently. In 2023, we received a B rating in the CDP Climate Change Questionnaire and maintained excellence at the management level.

Governance

TPV Technology integrates climate-related functions into its ESG governance structure. We have clearly defined the responsibilities of the Board of Directors and the management and also established a top-down management system. We have instituted carbon reduction incentive mechanisms. By linking carbon emission reduction efforts at the operation and value chain levels to executive compensation, we further motivate the management to address climate change and promote carbon reduction practices.

Main participants of climate change governance	Role	Responsibility	Frequency
 Board of Directors	Highest decision-making body	<ul style="list-style-type: none">Reviewing and approving the climate-related mechanism, and assessing the effectiveness of climate-related risk management and internal control systemsReviewing ESG strategies and plans, annual key performance indicators, and progress towards targets, including reviewing carbon emission reduction targets and roadmap and approving climate-related budgets <p>Integrating ESG factors, including climate change, into the following decision-making processes:</p> <div><div>Formulate the overall plan</div><div>Develop business plans</div><div>Establish annual budgets</div><div>Prepare capital expenditure, acquisition, and divestiture plans</div><div>Review and guide corporate strategy</div></div>	Annual
 Risk Management and ESG Committee	Management	<ul style="list-style-type: none">Guiding the design and implementation of strategies, goals, and initiatives related to climate changeAssessing and managing climate-related risks and opportunitiesHandling the entry, statistics, and tracking of climate-related data through the ESG PlatformMonitoring and supervising the progress towards key risk indicators for carbon emission reductionTracking and managing the progress towards the TPV ESG Roadmap to 2030, including carbon emission reduction targetsEngaging in communication with relevant stakeholders regarding climate-related issues, and conducting promotion and capacity-building activitiesRegularly reporting to the Board of Directors to ensure oversight	Semi-annual/ quarterly/ monthly/ daily
 ESG Taskforce	Execution	<ul style="list-style-type: none">Developing and implementing each target outlined in the TPV ESG Roadmap to 2030, including carbon emission reduction targetsThe Energy Conservation & Emission Reduction Team is responsible for implementing energy use and carbon emission reduction targets at the operation levelThe procurement, quality management, and R&D teams are responsible for implementing carbon emission reduction targets at the product levelThe HR Team is responsible for executing climate-related incentive policies and internal capacity-building activities	Semi-annual/ quarterly/ Monthly/ Daily

The highest decision-making body's qualifications related to climate change

Some Board members have extensive experience in green finance and climate-related management, including but not limited to daily management of climate-related issues and green investment and financing. Additionally, all Board members receive climate-related training and consultation to enrich their knowledge and management capabilities.

Conducting employee survey on climate change broadly

In 2023, we conducted a questionnaire on employees' awareness of climate-related issues and their familiarity with TPV's climate targets and actions. As shown by 1,392 valid responses, approximately 78% of our employees were familiar with TPV's carbon reduction emission targets, specific strategies, measures, indicators, and relevant targets. About 93% of employees recognized the importance of TPV's climate actions. The survey results will better guide the Company in raising the awareness and capacity building related to climate-related issues.



Strategy

We are fully aware of the complex systemic correlation between climate-related risks and opportunities. For instance, while climate-related policy shifts and extreme weather may increase pressure on our production and operations, they also present new opportunities for technological innovation and green transformation. With reference to various data models, we have built high-emission and low-emission scenarios. We also analyze the challenges and opportunities brought by climate under each scenario. Besides, we have identified the period and duration of impact in the short, medium, and long term. We conduct a comprehensive assessment of the impact of climate on our business and financial planning. Based on the analysis results, we have formulated our climate change strategies and countermeasures and made timely adjustment if necessary.

¹¹ Pre-industrial levels, global average temperature between 1850 and 1900.

¹² International Energy Agency (IEA) World Energy Outlook 2023 (WEO-2023).

¹³ Including all the Organisation for Economic Co-operation and Development (OECD) countries except Mexico.

¹⁴ Including China, India, Indonesia, Brazil, and South Africa.

Scenario Description

Low-emission Scenario (the rise of global temperature below 1.5°C)

Reference Model

Net Zero Emissions (NZE) by 2050 of the International Energy Agency (IEA)

Scenario Description

It is assumed that global net zero emissions will be achieved by 2050 and that the average temperature will stabilize at or below 1.5°C above pre-industrial levels¹¹.

Global CO ₂ Emission Trends (Mt)							
Year	2010	2021	2022	2030	2035	2040	2050
Total CO ₂ Emissions	32,877	36,589	36,930	24,030	13,375	6,471	–

Key Scenario Assumption¹²

Climate Policy

Under this scenario, regulatory policies become increasingly more stringent. TPV has released numerous climate policies and commitments in locations where it operates, including the Asia-Pacific region, Europe, North America, and South America.

Asia	Europe	North America	South America
<ul style="list-style-type: none">Chinese mainland: The Action Plan for Carbon Dioxide Peaking Before 2030 and the Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development PhilosophyThailand: Achieve carbon neutrality by 2065	<ul style="list-style-type: none">The EU: "Fit for 55" package, Carbon Border Adjustment Mechanism (CBAM), Eco-design for Sustainable Products Regulation (ESPR), European Green Deal, and European Climate LawThe UK: Climate Change Act	<ul style="list-style-type: none">The US: Pathways to Net Zero in the United States by 2050, Methane Emissions Reduction Action Plan, and Clean Competition Act	<ul style="list-style-type: none">Brazil: Achieve carbon neutrality by 2060 and the National Energy Plan 2050

Macro Economy

Under this scenario, the rate of population growth is assumed to slow over time, but the global population approaches 9.7 billion by 2050. 68% of the global population is projected to live in urban areas. Between 2022 and 2050, the global economy is assumed to increase at an average of 2.6% per year, although there are variations in growth rates across different countries, regions, and periods.

Energy Use and Structure

The remaining technical recoverable resources can still meet the global potential energy demand. However, the demand for fossil fuel production is relatively low under this scenario.

Carbon Price

Under this scenario, carbon dioxide prices cover all regions and show a rapidly upward trend in all developed and emerging economies that have committed to achieving net-zero emissions. In other emerging economies, carbon dioxide prices are relatively low but are also experiencing an upward trend.

CO ₂ Prices for Electricity, Industry and Energy Production			
Indicator	CO ₂ price per ton (USD, 2022 Market exchange rate)		
	2030	2040	2050
Advanced economies ¹³ with net zero emissions pledges	140	205	250
Emerging market and developing economies with net zero emissions pledges (including China) ¹⁴	90	160	150
Selected emerging markets and developing economies (without net zero emissions pledges)	25	85	180
Other emerging market and developing economies	15	35	55

Technological Advancement

Under this scenario, the costs of electricity production technologies are expected to decrease overall, and the international community is expected to jointly reduce the costs of clean energy technologies.

Scenario Application

Under this scenario, relevant policies are most stringent and the international community is committed to jointly promoting policy development, reducing the costs of clean energy technologies, diversifying critical minerals and clean energy technologies, and building a resilient global supply chain. The impact of transition risks on enterprises is maximized under this scenario, so transition risks will be analyzed in this scenario accordingly.



Scenario Description

High-emission Scenario (the rise of global temperature above 2°C)

Reference Model

Representative Concentration Pathway (RCP) SSP5-8.5 of the Intergovernmental Panel on Climate Change (IPCC)

Scenario Description

It is assumed that greenhouse gas (GHG) emissions will continue to increase throughout the 21st century and the global average temperature will rise by 3.2-4.5°C by 2100.

Key Scenario Assumption¹⁵

Surface Temperature

In the short, medium and long term, the rise of global surface temperature will be relatively high.

Optimal Predicted Value of Global Surface Temperature Change (Celsius, °C)

Scenario	Near term (2021-2040)	Mid-term (2041-2060)	Long-term (2081-2100)
SSP5-8.5	1.6	2.4	4.4

Asia-Pacific region, Europe, North America, South America, and other regions where TPV operates have all experienced annual near-surface temperature changes. The number of hot days with maximum temperatures exceeding 35°C is projected to increase significantly in East Asia, South Asia, North America, and South America, while the number of cold days with minimum temperatures below 0°C is expected to increase obviously in East Asia, Europe, and North America.

(IPCC, 2021)
Annual average changes in near-surface temperature (Global warming of 4°C above pre-industrial levels)

(IPCC, 2021)
Annual average change in days with maximum temperature above 35°C (Global warming of 4°C above pre-industrial levels)

(IPCC, 2021)
Annual average change in days with minimum temperature below 0°C (Global warming of 4°C above pre-industrial levels)

Precipitation

(IPCC, 2021)
Average Annual Change in Total Precipitation (global warming of 4°C above pre-industrial levels)

Sea Level Temperature

The sea level temperature in the waters near the areas where TPV operates has a relatively obviously upward trend. Under this scenario, the global average sea level will continue to rise, and there may be ice-sheet instability and other situations.

(IPCC, 2021)
Global mean sea level change relative to 1900

Scenario Application

Under this scenario, relevant policies are the most relaxed. However, with the rise of global temperature, the increase of extreme weather days, the change of precipitation, the rise of sea level and other phenomena, enterprises face the most challenging physical risk. Hence, physical risk will be analyzed under this scenario.

¹⁵ IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. In Press.



Scenario Analysis




Low-emission Scenario

Risk Category	Risk Description	Risks	Opportunities	Countermeasures	Impact Duration ¹⁶	Financial Impact
Policy and regulatory	Climate disclosure obligations: With the issuance of climate disclosure standards by the European Commission and the International Financial Reporting Standards Foundation, climate change disclosure requirements have been increased and deepened	<ul style="list-style-type: none"> Increase the cost of routine carbon data collection and maintenance and third-party carbon inventory Increase the human resource cost of tracking and interpreting relevant policies and standards 	<ul style="list-style-type: none"> Precisely monitor emissions, properly control the energy use, and reduce costs 	<ul style="list-style-type: none"> Establish a mechanism to manage carbon emissions data regularly Continuously disclose the progress towards addressing climate change and achieving carbon emission reduction targets according to the Task Force on Climate-Related Financial Disclosure (TCFD), Corporate Sustainability Reporting Directive (CSRD), European Sustainability Reporting Standard (ESRS), Global Reporting Initiative (GRI) and other frameworks in the annual ESG report 	Short-term	Low
	Carbon pricing: Impose carbon taxes, fees, etc. on emission-intensive products such as CBAM; set corporate carbon emission quota, etc.	<ul style="list-style-type: none"> Increase carbon compliance costs Emission-intensive products incur additional costs, resulting in higher prices, which affect the market share and the revenue Increased operating costs from carbon credit once the quota is exceeded 	<ul style="list-style-type: none"> Strengthen competence to manage carbon costs throughout the product lifecycle and improve the competitiveness of green products 	<ul style="list-style-type: none"> Set carbon reduction targets and measures Promote energy conservation initiatives and technology development Adopt renewable energy to improve energy efficiency and reduce operational carbon emissions Manage carbon emissions throughout product lifecycle and reduce carbon footprint with partners in the value chain Track carbon credit prices and create robust plans for carbon assets 	Medium to long-term	Low
	Product carbon footprint: The European Commission has proposed the <i>Eco-design for Sustainable Products Regulation</i> , (ESPR), which aims to ensure that products launched into the EU market meet the requirements of sustainable development and reduce the environmental impact of products throughout their life cycle (including product carbon footprint, etc.).	<ul style="list-style-type: none"> Increase carbon compliance costs Face green barriers in the international market due to failure to effectively control and reduce the carbon footprint of products 	<ul style="list-style-type: none"> Maintain low emission levels, increase carbon asset advantage, and enhance the Company's green competitiveness 		Medium to long-term	Low
	Renewable energy: Require complete transition to renewable energy	<ul style="list-style-type: none"> Increased costs of building infrastructure and purchasing renewable energy Unstable energy supply 	<ul style="list-style-type: none"> Adopt renewable energy and explore preferential policies or incentives 	<ul style="list-style-type: none"> Plan ahead for future energy consumption and implement low-carbon operation and management practices Expand solar power projects, adopt renewable electricity and increase the percentage of renewable energy use Manufacturing bases and offices in locations such as Beijing, Qingdao, Brazil, Mexico, Shanghai, and Amsterdam adopt hydropower, solar photovoltaic and other renewable energy 	Medium to long-term	Medium
Technological	Innovation in low-carbon technology: Require technological upgrading or innovation to transition to a low-carbon, energy-efficient economic system	<ul style="list-style-type: none"> Increased R&D costs for low-carbon technologies Loss of investment due to R&D failure Loss of market share to competitors' leadership in low-carbon technologies 	<ul style="list-style-type: none"> Acquire innovative talent and enhance company-wide innovation capability Develop low-carbon technologies and increase low-carbon market share 	<ul style="list-style-type: none"> Increase R&D investment and increase innovation incentives Recruit R&D talent, enhance employees' ability to innovate, and conduct industry-university research collaborations Apply low-carbon innovative capabilities, actively apply for patents, and expand and diversify patent portfolio 	Medium to long-term	Medium
Market	Increased raw material costs: Increased raw material costs due to climate change	<ul style="list-style-type: none"> Increased raw material prices and supplier operating costs due to carbon reduction policies or supply chain disruptions Increased raw material prices lead to increased product prices, which may result in loss of customers and reduced turnover 	<ul style="list-style-type: none"> Explore multiple sources of low-carbon raw materials, strengthen supply chain resilience and encourage supply chain collaboration to reduce carbon emissions 	<ul style="list-style-type: none"> Increase the percentage of low-carbon raw materials Collaborate with suppliers to develop innovative low-carbon raw materials 	Medium to long-term	Medium
	Changes in the needs of customers and consumers: Customers shift to green consumption	<ul style="list-style-type: none"> Failure to meet customer expectations for low-carbon manufacturing and management, resulting in loss of orders Loss of market share due to failure to keep pace with changing customer preferences and timely introduction of green products 	<ul style="list-style-type: none"> Develop green products and explore new market opportunities 	<ul style="list-style-type: none"> Advocate green product R&D and further expand the green product portfolio Raise awareness of green products and sustainable consumption 	Medium to long-term	Medium
Reputational	Negative evaluation from stakeholders: Stakeholders disappointed with the Company's progress and actions to mitigate climate change	<ul style="list-style-type: none"> Failure to communicate the Company's progress on climate change results in negative stakeholder feedback, reputational damage and potential financial loss 	<ul style="list-style-type: none"> Build a green brand image through proactive communication 	<ul style="list-style-type: none"> Report the progress on climate change mitigation and carbon emission reduction targets through annual ESG report Maintain accessible stakeholder communication channels and engage in regular dialogue 	Long-term	Low
	Negative supply chain events: Negative events resulting from Suppliers' failure to effectively manage GHG emissions	<ul style="list-style-type: none"> Suppliers provide emission-intensive materials that increase the carbon emissions of TPV products Suppliers are penalized by regulators or trigger negative publicity due to inactive carbon reduction actions, leading to reputational damage to TPV 	<ul style="list-style-type: none"> Support suppliers' carbon reduction efforts and promote the low-carbon development of the industry 	<ul style="list-style-type: none"> Strengthen supplier carbon management Sign <i>Procurement Contract</i> with suppliers that include GHG emissions-related requirements Integrate GHG emissions-related supplier requirements into supplier approval and supply chain risk assessment criteria 	Medium-term	Low

¹⁶ This report defines the time horizons as follows: the short term extends until 2025, the medium term until 2030, and the long term refers to the period after 2030. This framework takes into account TPV ESG roadmap to 2030 and aligns with external macroeconomic policy goals.



Scenario Analysis			 High-emission Scenario			
Risk Category	Risk Description	Risks	Opportunities	Countermeasures	Impact Duration	Financial Impact ¹⁷
Acute physical risk	Typhoons, storms, etc.: Increased frequency and severity of extreme weather, such as typhoons and storms	<ul style="list-style-type: none">Offices and manufacturing bases in coastal and low-lying areas are vulnerable to flooding, local power outages, and facilities damage, resulting in loss of staff and assetsLocal road closures may hamper the timely delivery of materials or products to the company or from the company to its customers, undermining supply chain stability	<ul style="list-style-type: none">Improve resilience to extreme weather and natural disastersEnhance risk management capabilities to address the climate crisis and ensure business continuity	<ul style="list-style-type: none">Develop management and emergency preparedness measures, such as the <i>Administrative Measures for the Prevention of Typhoon and Flood Prevention for Factories on the Mainland</i>, and the <i>Emergency Measures for Major Floods</i>, and conduct emergency drills the supply chainImprove the resilience of buildings and manufacturing facilities to extreme weather by upgrading infrastructure and equipmentEnrich the supplier base, regularly supervise suppliers¹⁷ to improve change response ability, and strengthen environmental risk management in the supply chain	Short to medium-term	Low
Chronic physical risk	Abnormal temperature changes: Excessive GHG emissions lead to global temperature anomalies, resulting in hot droughts or cold spells	<ul style="list-style-type: none">The Company will need to use air conditioning more frequently to maintain the optimal temperature and ensure the health of employees, consuming more electricity and natural gas and resulting in higher operating costs		<ul style="list-style-type: none">Strengthen the energy management systemOptimize energy efficiency at manufacturing bases, upgrade to energy-efficient equipment, and increase the percentage of renewable energyTPV Brazil develops Business Continuity Plan (BCP) for drought risk around Amazon River	Long-term	Low
	Sea level rise: Global warming accelerates melting ice and sea level rise	<ul style="list-style-type: none">Affect the safety and stability of coastal manufacturing bases, potentially increasing the cost of relocation or causing property damage		<ul style="list-style-type: none">Monitor climate changes and risk warnings in areas of operation, optimize the geographical distribution of manufacturing bases and warehouses, improve flood resilience of infrastructure	Long-term	Low
	Increased water pressure: Climate change causes changes in rainfall patterns and water scarcity, etc.	<ul style="list-style-type: none">Bring potential impact of water resources		<ul style="list-style-type: none">Establish water management action targets in the short, medium and long termActively adopt water recycling technologyTrack and disclose information related to water management, and participate in CDP "Water Security"	Medium to long-term	Low

Based on the above analysis, we have defined our climate change strategy and countermeasures from three perspectives.

Strategy 1:
Low-carbon operations

We expect to further strengthen our energy management capabilities, improve resource and energy efficiency, and increase the percentage of renewable energy.

Countermeasure

We incorporate the concept of sustainable development into corporate governance and operations and also improve our organizational structure. In addition to routine operations, our annual financial plan sets aside additional budget for addressing climate risks, which is used for employee training, capacity building, and energy-saving projects.

^{*} Please refer to the section "low-carbon operations" for details.

Strategy 2:
Low-carbon products

We will integrate green and low-carbon concepts into the product lifecycle to further expand our green product portfolio, thus minimizing the environmental impact of our products.

Countermeasure

Product & Service: Throughout the product lifecycle including design, packaging materials, and product testing, we are committed to providing greener electronic products with lower carbon footprint in line with the sustainable principle.

R&D Investment: We calculate the R&D investment in low-carbon products, construction cost of energy-saving projects, ESG management costs, carbon credit costs, and incentives provided for energy-saving proposals. We also continuously increase the R&D investment.

^{*} Please refer to the section "Green Product & Packaging" for details.

Strategy 3:
Sustainable supply chain

We will encourage suppliers to actively pursue carbon reduction rather than passively follow our requirements, thereby jointly promoting a low-carbon supply chain.

Countermeasure

We strengthen relationships with suppliers and all partners across the value chain and work together to build sustainable relationships and networks.

^{*} Please refer to the section "Sustainable Supply Chain" for details.

¹⁷ Financial Impact: With the impact of various risks on finance and strategy considered, "low" represents a potential impact of less than 5% of profit before tax; "medium" represents a potential impact of greater than 5% and less than 10% of profit before tax; "high" represents a potential impact of greater than 10% of profit before tax.



Investment



R&D Investment



Investment in Green Product Certification



Investment in Renewable Energy



Investment in the Construction of Green Manufacturing Bases
(Energy-Saving Projects, Management System Certification, etc.)



Incentive Expenses for Energy-Saving And Emission-Reducing Proposals



ESG Management Expenses
(Setting Climate Change Goals, Managing Carbon Emissions Data, etc.)

Scenario Case



Case for transition opportunity: Developing new markets with low-carbon products

TPV keeps a close eye on global regulatory trends and market preferences. The Risk Management and ESG Committee, along with business and R&D teams, regularly track the latest laws and regulations. We also review trend monitoring results as well as analyze and discuss potential risks and opportunities on a quarterly manner.

In recent years, energy consumption and carbon footprint of products have become important indicators in the international market, especially in the European market. In April 2023, the European Commission issued the *Eco-design for Sustainable Products Regulation* (ESPR), under which products that do not meet its requirements cannot be sold in the EU market. This approach will meet consumer demand for sustainable products. In this context, failure to effectively monitor and respond to the latest regulations and regulatory requirements may lead to potential market losses. However, effective creation of green and low-carbon products can help to develop new markets and deliver high-quality product experience to more consumers.

Therefore, TPV continuously increases R&D investment in low-carbon products and develops related product certification plans. Every year, we plan to verify the carbon footprint of over 200 types of products and obtain green product certificates. Such products will earn us a positive market reputation and directly contribute to revenue growth. We meet the requirements of environmental policies in the region by launching green certified products such as EPEAT and Nordic Swan. By doing so, we enhance the core competitiveness and market recognition of our products, and provide high-quality product services for more consumers with low-carbon preferences.



Case for physical risk: Responding to super typhoon “Haikui”

Many of TPV’s projects are located in coastal and inland basin areas of China. In recent years, increasingly severe climate disasters and abnormal weather events have posed potential risks to our buildings, production facilities, and employee safety. Extreme weather may result in production disruptions and the subsequent financial losses.

To address such risks, we have formulated management policies such as the *Administrative Measures for the Prevention of Typhoon and Flood Prevention for Factories on the Mainland* and the *Emergency Measures for Major Floods* to prevent and respond to natural disasters as well as resume work and production. Additionally, we conduct emergency drills and actively monitor weather changes during the typhoon season each year. We also continuously increase financial investment and take preventive measures to mitigate the impact of climate risks.

In September 2023, the super typhoon “Haikui” caused severe damage to the economy and infrastructure of Fujing City. TPV Fujing suffered

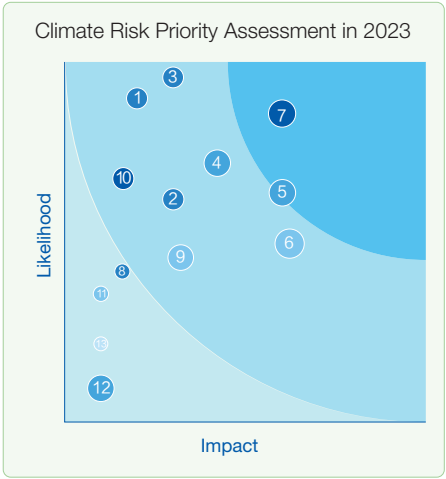
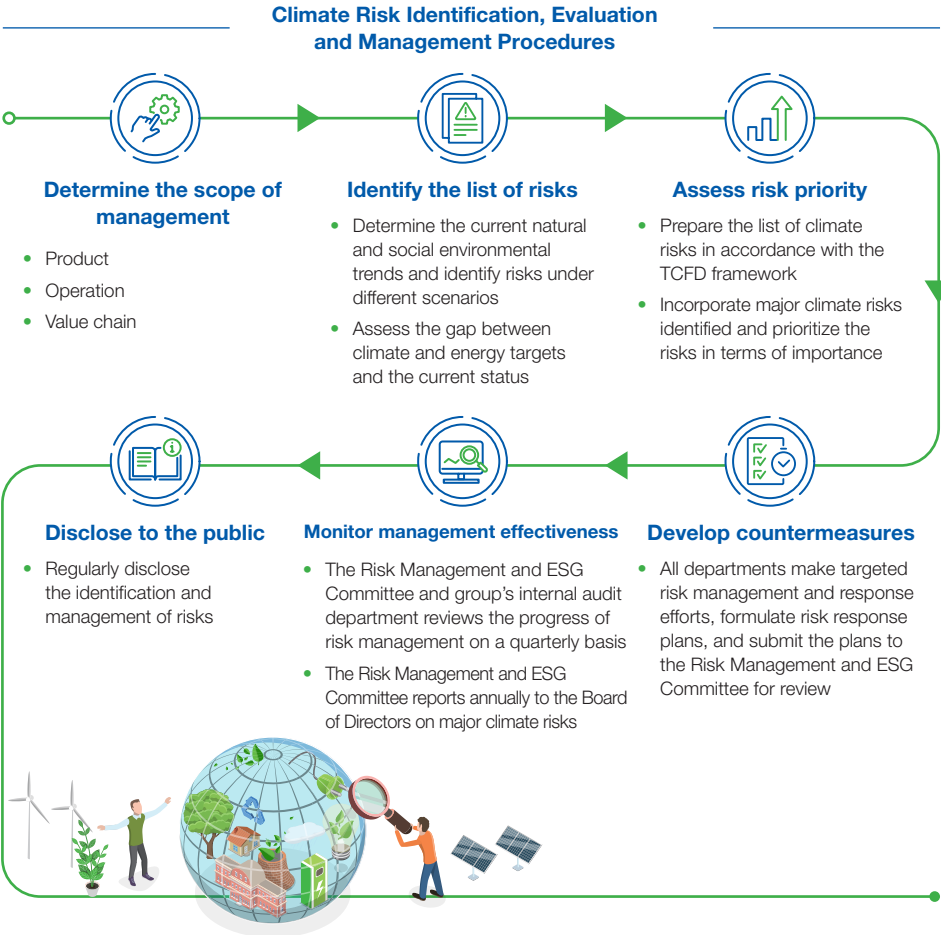
from problems such as submerged offices and power outages. According to emergency plans and safeguard mechanisms, we efficiently organized personnel evacuation and material relief. Through these efforts, we protected the safety of employees and delivered material relief efficiently. After the typhoon ended, we established a post-disaster recovery team to promptly resume normal production. The losses from this disaster were fully covered by hazard insurance, without causing financial losses.





Risk Management

We have developed standardized processes for climate-related risk identification, assessment and management, and the Risk Management and ESG Committee is responsible for regularly reviewing climate-related risks, and aligning with internal and external environmental changes and latest business strategy, so as to continuously improve climate-related risk management. In 2023, we have integrated our operational SBTi targets as the company's Key Risk Indicator (KRI) into the ERM (Enterprise Risk Management) system, and track the progress every quarter.





In this Report, we have analyzed the priority of climate-related risks confronted by the Company for the first time, taking into account scope of impact, likelihood, vulnerability and speed of onset. We also continuously track the risks with relatively high priority.

Risk		Category
1	Mandatory and complicated obligations for climate disclosure	Transition risk
2	Impose an additional charge on carbon emissions from related corporate operations	
3	Continuously reduce carbon footprint of products	
4	Complete transition to renewable energy	
5	Investment in low-carbon technological innovation and rapid response	
6	Increased cost of raw materials	
7	Shift of customers and consumers to low-carbon consumption	
8	Negative evaluation of stakeholders on failure to respond to climate change in time	
9	Negative events resulting from suppliers' failure to effectively manage GHG emissions	
10	Increased frequency and severity of extreme weather, such as typhoons and storms	Physical risk
11	Negative impact on the operating costs and employees' health from drought or cold wave	
12	Global warming accelerates melting ice and sea level rise, affecting the operation sites around the waters	
13	Climate change causes changes in rainfall patterns, water scarcity, etc.	



Metrics & Targets

TPV has set GHG emission reduction targets in line with SBTi 1.5°C scenarios and got validated by SBTi since 2022. We have established quantitative indicators for three strategies. We conduct carbon inventory at least once a year to effectively track and review the progress toward our targets and implement targeted measures.

Science Based Targets initiative	Strategy	Measures	Metrics and Targets	Progress in 2023	GHG Emissions (2020 as the base year)	GHG Emissions (2023)
 By 2030, reduce Scope 1 & 2 emissions by 42% from 2020	Low-carbon operations	<ul style="list-style-type: none"> Optimize energy utilization structure, purchase renewable electricity, deploy distributed solar projects and promote clean energy; explore carbon offsetting through green electricity certificates and other methods 	<ul style="list-style-type: none"> By 2025, ensure that renewable electricity accounts for at least 13% of total electricity consumption (at global manufacturing bases, main offices and operation sites) 	<ul style="list-style-type: none"> Conduct overall planning of renewable energy use and deploy photovoltaic power generation plans Increase the proportion of renewable energy by 2.22% at global manufacturing bases and main offices and operation sites 	178,305 tons of CO ₂ e	117,915 tons of CO ₂ e reduced by 34% compared to base year
		<ul style="list-style-type: none"> Improve the energy management system, promote energy conservation and emissions reduction at manufacturing bases, and reduce energy consumption per unit of product 	<ul style="list-style-type: none"> By 2025, reduce annual electricity consumption (at global manufacturing bases, main offices and operation sites) by 2.4% from 2021 	<ul style="list-style-type: none"> Improve energy management capabilities, obtained 3 new ISO 50001 energy management system certification 		
 By 2030, reduce Scope 3 emissions – use of sold products by 42% from 2020	Green and low-carbon products	<ul style="list-style-type: none"> Develop innovative energy-efficient products to reduce energy consumption and improve the environmental performance of products 	<ul style="list-style-type: none"> By 2025, reduce product energy use of own brand monitors and TVs by 25% from 2020 	<ul style="list-style-type: none"> Develop energy-efficiency technologies, introduce the highest product energy efficiency standards, and diversify the green product portfolio such as e-ink displays 	14,875,005 ¹⁸ tons of CO ₂ e	7,597,951 tons of CO ₂ e reduced by 49% compared to base year
		<ul style="list-style-type: none"> Increase the percentage of recyclable materials and broaden the range of recyclable materials and their applications, contributing to a circular economy 	<ul style="list-style-type: none"> By 2030, use at least 50% of recycled plastic or ocean-bound plastic in own brand products By 2030, use at least 25% of recycled aluminum in aluminum parts of own brand products By 2030, use at least 90% of recycled or FSC-certified materials or bio-based materials in own packaging of own brand products By 2030, reduce carbon emissions from packaging by 25% for own brands from 2020 	<ul style="list-style-type: none"> Adopt lightweight packaging materials, introduce paper-plastic packaging, and reduce packaging materials by 28,400 tons 		
	Sustainable supply chain	<ul style="list-style-type: none"> Cooperate with business partners to enhance material circularity and reduce carbon emissions in the industry 	<ul style="list-style-type: none"> Select low-carbon transportation routes and modes wherever possible, including electrified railways, cargo ships using low-sulfur fuels, etc. By 2025, require key suppliers to provide GHG inventory information 	<ul style="list-style-type: none"> Promote TPV's SBTi targets and supplier carbon emission reduction plans to all suppliers at supplier conferences Conduct one-on-one interviews with key suppliers on net zero to understand carbon emissions Engage 5 suppliers to participate in CDP Climate Change Questionnaire 		

Since 2020, TPV has conducted various emission reduction actions and carbon offset projects around the world, combined with multiple internal and external factors such as market environment and emission factors. We have initially achieved targets of Scope 3 – use of sold products, and we will keep monitoring to ensure the long-term effectiveness of emission reduction target.

¹⁸ Base year (2020) emission submitted to the SBTi: Scope 1 & 2 is 178,305 tons CO₂e; Scope 3 - use of sold products is 15,774,130 tons CO₂e. As there are extrapolate calculations in scope 3, 14,875,005 tons CO₂e of the actual product in 2020 is used to calculate the achievement rate of the actual data, in order to ensure accurate measurement of the energy consumption reduction during the product use.



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Low-carbon Operations

Low-carbon operations and green development are key to achieving TPV's targets for environmental sustainability. We continuously improve the efficiency of energy and resource use and promote the transformation of energy structure. We also adhere to clean production practices and efficiently handle all types of emissions in compliance with relevant regulations. Our goal is to minimize environmental impact while promoting coordinated growth between the economy and the environment.

Environmental Management

TPV strictly abides by the applicable laws and regulations in the locations where it operates, including the *Environmental Protection Law of the People's Republic of China* and the *Law on Environmental Impact Assessment for the People's Republic of China*. At the group level, we have formulated the *Environmental Protection Policy* and established comprehensive environmental management systems and mechanisms at all manufacturing bases. Led by the General Manager of each manufacturing base, these environmental management mechanisms aim to regularly identify, assess, and control environmental impact throughout the production and operation processes.

The Company has formulated an environmental emergency incident response plan and categorized potential emergency incidents. We also clearly define the responsibilities of emergency rescue teams and equip them with necessary facilities. Additionally, we regularly organize drills and training sessions on earthquake relief, fire evacuation, and other emergency incidents in accordance with the emergency plan. These measures effectively ensure the emergency response and handling of emergency environmental incidents.

In 2023, TPV Xiamen received the **Green Factory Certification of Fujian Province**



Energy Management

We continuously optimize our energy management system to improve energy efficiency and reduce reliance on exhaustible resources. TPV has established regulations such as the *Control and Management Procedures for Energy Consumption* and the *Control Procedures for Energy Conservation and Emissions Reduction*. We have implemented an energy management mechanism led by the energy conservation leading team. The mechanism is led by the General Managers of each manufacturing base as well as coordinated by equipment and facility departments. Relevant departments involved will also hold regular management meetings. They will discuss and decide on energy-saving proposals, track fluctuations of energy prices, and ensure the smooth implementation of energy-saving measures. TPV is committed to promoting the standardization of energy management across its global operation sites, with six manufacturing bases already obtaining the ISO 50001 Energy Management System certification.



All manufacturing bases have established energy-saving targets for the total amount or unit value based on their own energy consumption. They regularly track and inspect energy use during production and operations, analyze energy-saving potential, and promote energy-saving and emission-reducing campaigns. Main energy-saving measures include replacing energy-saving equipment and lighting, optimizing equipment and facility usage, and implementing smart energy management systems. Energy cost control assessment objectives are established for the management, and incentive for energy conservation and consumption reduction are also offered in some areas. The well-developed system of rewards and penalties facilitates the realization of energy-saving targets.

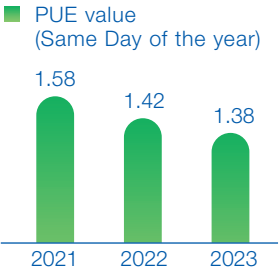
Energy-saving Projects		Energy-saving Performances	Energy-saving Projects		Energy-saving Performances
TPV Xiamen	Adjust the operating time of ice machines in winter	Save an average of 1.17 million kWh of electricity per year, equivalent to 823.1 tons of CO ₂ reduced	TPV Argentina	Replace 80% of lights with energy-saving LED light	Save an average of 21,600 kWh of electricity per year, equivalent to 6.9 tons of CO ₂ reduced
	Introduce the smart energy management platform	Save an average of 150,000 kWh of electricity per year, equivalent to 105.5 tons of CO ₂ reduced	TPV Brazil	Replace inverters to improve the energy consumption efficiency of traditional air conditioners	Save an average of 159,000 kWh of electricity per year, equivalent to 15.8 tons of CO ₂ reduced
TPV Fuqing	Use plate heat exchangers in the central air conditioning system based on production needs to reduce electricity consumption for production cooling	Save an average of 330,000 kWh of electricity per year, equivalent to 232.2 tons of CO ₂ reduced	TPV Mexico	Replace 75% of lights with energy-saving LED lights	Save an average of 5,622 kWh of electricity per year, equivalent to 2.6 tons of CO ₂ reduced
TPV Xianyang	Implement energy-saving transformation for equipment and lighting systems	Save an average of 313,000 kWh of electricity per year, equivalent to 208.9 tons of CO ₂ reduced	TPV Russia	Replace 80% of lights with energy-saving LED lights	Save an average of 25,000 kWh of electricity per year, equivalent to 8.7 tons of CO ₂ reduced
	Implement energy-saving transformation for boilers	Save an average of 2,750 m ³ of natural gas per year, equivalent to 6 tons of CO ₂ reduced		Install fan control systems for heat exchangers to control operating time	Save 832 GJ of heat, equivalent to 91.5 tons of CO ₂ reduced
TPV Poland	Switch to air compressors with higher energy efficiency	Save an average of 196,000 kWh of electricity per year, equivalent to 138.4 tons of CO ₂ reduced	TPV Thailand	Replace the high energy efficiency inverter air compressor and introduce the cooling water tower	Save an average of 552,000 kWh of electricity per year, equivalent to 264.8 tons of CO ₂ reduced

In 2023,

TPV's manufacturing bases in Chinese mainland saved a total of **2.41** million kWh of electricity through means such as upgrade of energy-saving equipment, technological innovation, and improvement in equipment efficiency

This resulted in a **3%** decrease in total electricity consumption compared to the previous year

We closely monitor the execution and progress of energy-saving and emission-reducing targets and measures. In 2023, the PUE¹⁹ value of our data centers decreased by 2.8% compared to the previous year through cold aisle design and virtualization. We continuously improve the management system for company vehicles and standardize procedures for company vehicle usage. We also adhere to the principle of “making applications in advance and scientifically planning routes”. In this way, we reduce the number of repeated trips, save fuel consumption, and minimize exhaust emissions. Additionally, we actively adopt electric commuting bus, install charging piles, and encourage employees to commute in more sustainable ways.



TPV organizes environmental education and training every year. We carry out a variety of “Energy-saving Publicity Month/Week” activities to promote environmental and energy management policies and concepts to all employees. We actively also participate in industrial seminars on energy-saving technology to enhance employees’ awareness and capabilities in environmental protection and energy conservation.



¹⁹ Power Usage Effectiveness is a key index to demonstrate the energy efficiency of data centers.



Renewable Energy Use

Continuously optimizing our energy structure and increasing the proportion of renewable energy are important pathways for reducing carbon emissions at the operation level. In 2023, we thoroughly evaluated the Group's plan for the use of renewable energy and explored possibilities of further increasing the use of renewable energy. First, we increased the use of green electricity in our production and operation processes through the direct purchase of green electricity and the construction of photovoltaic power generation facilities at manufacturing bases. Second, we actively participated in the trading of the green electricity market and offset energy-related carbon emissions through the purchase of green electricity certificates and other means.

Category

Measures in 2023

Photovoltaic facility

- TPV Qingdao's annual generation reached **619 MWh**
- TPV Beijing's annual generation reached **555 MWh**
- TPV Shanghai's annual generation reached **50 MWh**

Direct purchase of green electricity

- TPV Brazil was **100%** powered by renewable electricity

Certificate of green electricity

- TPV Fuguang purchased and consumed **12,447 MWh** I-REC
- TPV Wuhan purchased and consumed **5,978 MWh** I-REC
- TPV Shanghai purchased and consumed **206 MWh** I-REC



Photovoltaic Facilities on Manufacturing Bases

International-Renewable Energy Certificate (I-REC) of TPV Fuguang



In 2023
11,812 MWh of renewable electricity was consumed at our manufacturing bases and operation sites

accounting for
6.28% of total electricity consumption

Water Management

Water resources are crucial for sustaining social development and human well-being. Our production processes and manufacturing techniques do not involve large-scale industrial water usage. All water withdrawal is fresh water and does not involve areas with water stress. We strictly abide by relevant applicable laws and standards, including the *Law on Water Pollution Prevention and Control of the People's Republic of China*, the *Law on Marine Environmental Protection of the People's Republic of China*, and the *Water Pollution Prevention and Control Action Plan*. We focus on controlling the use and discharge of domestic water. We have established a wide range of water management systems and measures and set relevant targets in the short, medium, and long term.

In 2023

85,644 tons of water withdrawal were reduced



We received an **A-** rating in the CDP Water Security Questionnaire and achieved the leadership performance

Targets for water resource management action

Short-term target By 2025, achieve **100%** water-saving equipment replacement

Medium-term target By 2030, achieve **100%** intelligent water meter replacement

Long-term target Maintain total water withdrawals at 2021 levels

Key progress in 2023

TPV Fuguang set the goal of "reducing the per capita monthly water consumption by **2%** compared to the actual value of the previous year". They installed remote monitoring systems and identified eight underground pipe leaks in 2023. After repair, the amount of weak leaks was reduced by approximately **18,000 tons**

TPV Beijing developed a water usage plan. They regularly inspected and read water meters to solve anomalies in time. As a result, water withdrawals were reduced by **12,278 tons** compared to the previous year

TPV Shanghai collected **3,377 tons** of rainwater in buildings



Emissions Management


TPV maintains a highly responsible approach to the safe and proper disposal of emissions from production. We strictly abide by the relevant laws and regulations in the locations where we operate. We have developed a wide range of management systems and waste reduction targets, regularly monitored various emission indicators, and promoted the recycling of waste materials, to ensure clean production.

Solid Waste

TPV always observes the regulations regarding the disposal of different types of waste in the locations where it operates. We have developed various waste management systems to standardize waste classification as well as disposal processes and methods, including the *Solid Waste Control Procedure*, the *Hazardous and Harmful Substance Control Procedure*, and the *Hazardous Waste Control Plan*. TPV focuses on waste reduction and recycling by exploring ways to reduce the generation of solid waste and improve the efficiency of waste disposal.


Methods of Waste Classification and Disposal		
Category	Disposal	
General waste	General waste shall be collected in a centralized manner, classified, and recycled by qualified third-party service providers	
Hazardous waste	Hazardous waste shall be transferred and disposed in strict accordance with the <i>Standards for Pollution Control of Hazardous Waste Storage</i> and the <i>Directive on Manifest Management for Transferring Hazardous Waste</i> . Hazardous waste shall be collected and stored in dedicated containers and packaging materials. According to their attributes, hazardous waste shall be stored in designated warehouses. TPV ensures proper collection, storage, and labelling of hazardous waste and entrusts qualified third-party service providers to handle the transfer, safe disposal, and centralized recycling of hazardous waste	
Domestic waste	Recyclables	Recyclable waste shall be sorted and collected in a centralized manner for proper disposal
	Unrecyclable	Unrecyclable waste shall be sorted and collected in a centralized manner for disposal by the local municipal service provider
	Kitchen waste	Food waste shall be transferred to qualified third-party service providers for disposal by the local municipal service provider
	Hazardous waste	Used batteries and electronic waste discarded will be collected and transferred according to standard procedures to qualified third-party service providers for exchange

In 2023, we focused on optimizing and innovating production processes, refining consumables management, and improving operational workflows to reduce the use of raw materials and minimize waste generated in all links of manufacturing.




Reduce waste from the source

- Replace laser marking labels instead of traditional attached labels, reducing the use of paper and plastic labels by 20% Optimize the packaging of film products to reduce the amount of packaging materials generated
- Reuse residual glue inside UV glue tubes and reduce glue waste
- Optimize the processing technology for special board welding, reduce solder flux usage by 80% and decrease tin slag by 90%
- Use heat-dissipating oil and board-inserted heat-dissipating fins to reduce the use of thermal conductive glue by over 90% and the generation of waste packaging materials
- Replace wet stations with spray bottles and reduce waste by 10% due to cleaner wastage



Promote recycling at the end

- **TPV Thailand:** Recycle 50% of polyethylene bag, 100% of paperboard, 85% of plastic materials, and 100% of tray for some product lines
- **TPV Argentina:** Recycle 95% of paperboard, 95% of expandable polystyrene (EPS), and 95% of tin slag for some product lines





TPV Fuqing receives the Platinum Rating for Zero Waste to Landfill

In 2023, TPV Fuqing traced the data and disposal methods for 22 types of solid waste. In October, TPV Fuqing obtained the UL2799²⁰ Platinum Rating for Zero Waste to Landfill. This certification means that the company has achieved a waste conversion rate of over 90% and established an eco-friendly paradigm for waste disposal in the industry.



UL2799 Platinum Rating for Zero Waste to Landfill Validation

Measures for reducing packaging materials during turnover

Parts Packaging

Without compromising quality, anti-tamper labels on the outer packaging of film products can be removed, thus reducing label usage by 40%. The quantity of single packages can be adjusted based on the thickness of film, thus reducing the use of packaging materials by 40%. The number of internal transfers can be adjusted, thus reducing the use of packaging materials by 80%

Transportation Turnover Packaging

Adopt reusable turnover boxes for panel transportation in China to reduce transportation damage and decrease the usage of packaging materials

Reusable Turnover Boxes



Poster for Waste Management and Classification

²⁰ UL2799 is one of the highest standards for Zero Waste to Landfill certification. It is a standard for certifying zero waste to landfill and is issued by Underwriters Laboratories Inc., a standard development organization.

Air Pollution

TPV strictly complies with applicable laws and standards in the locations where it operates, such as the *Law on the Prevention and Control of Air Pollution for the People's Republic of China* and the *Comprehensive Emission Standards of Air Pollutants for the People's Republic of China*. We have established the Exhaust Emission Control Procedure to monitor and control exhaust emissions throughout the process.

We take the following measures to reduce air emissions from the beginning to the terminals:

- Standardize the development and recognition of chemicals and adopt the characteristics of chemicals as the basis for qualitative and quantitative risk assessment
- Collect organic air emission generated during the production process in a sealed manner and discharge it through exhaust pipes for high-altitude emission in compliance with relevant regulations
- Conduct monthly inspections of gas collection facilities and pipelines, promptly solve any problems, and ensure the effective collection of air emission
- Regularly clean and maintain exhaust pipes and vents to reduce the impact of equipment aging or malfunctions on air emissions
- Entrust qualified third parties to conduct annual inspections to ensure that all air emission monitoring indicators are below the limit for emission compliance
- Install online monitoring equipment for air emission at the outlet, connect to the platform of the local environmental authority, install real-time monitoring screens outside the factory, disclose real-time air emission, as well as enable indicator control and public supervision

Wastewater

At TPV, our production processes and manufacturing techniques do not involve large-scale industrial water usage or industrial wastewater discharge. It only involves the treatment and discharge of domestic wastewater. In strict accordance with the applicable laws and standards in the locations where it operates, TPV has established management systems and measures such as the *Wastewater Treatment Management Rules*. We also ensure that domestic wastewater is discharged in compliance with relevant regulations. We will dispose of domestic wastewater and canteen wastewater generated in daily life before discharging it into the local municipal sewage network for further treatment at the municipal sewage treatment plant.

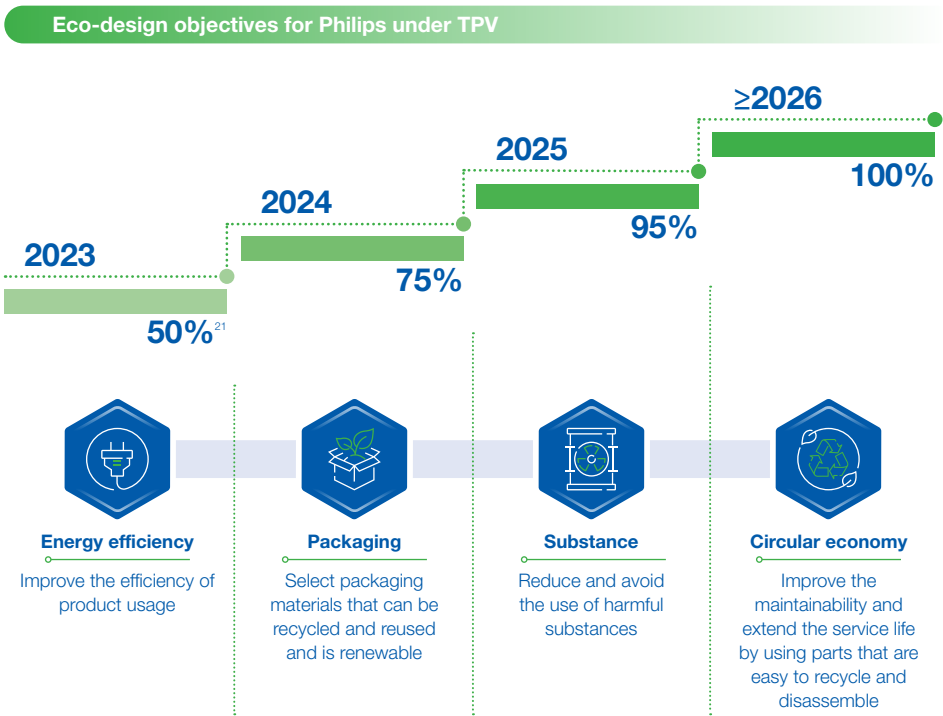
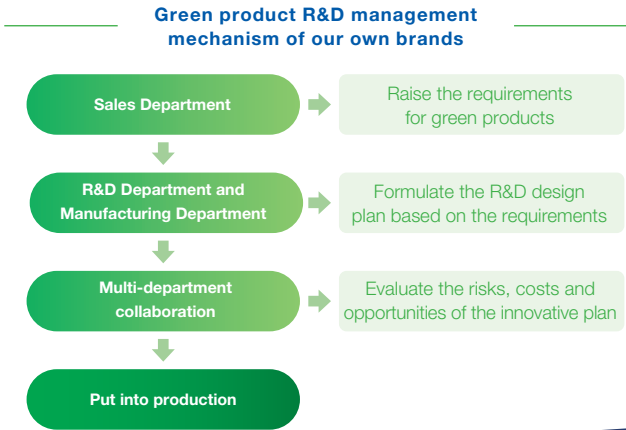


Green Product & Packaging

TPV strives to reduce the impact and dependency of production on the environment and generate positive environmental benefits through the R&D and application of green products and sustainable packaging materials. It is also crucial for TPV to achieve its carbon emission reduction targets. We are committed to integrating the concept of sustainability into the entire lifecycle of product design and production. Through technological improvements, the application of sustainable packaging materials, product recycling, and optimization of logistics and transportation methods, we aim to comprehensively reduce the carbon footprint of our products and provide consumers with more eco-friendly and sustainable products and solutions.

Green Products

The R&D of green products is a critical step for TPV in delivering low-carbon products. We have established an efficient cross-department cooperation mechanism for green product R&D. Our focus is on developing products with environmental and economic benefits that comply with the latest laws, regulations, and standards, and reducing environmental and social risks throughout the product life-cycle.



²¹ The proportion of products meeting the Philips EcoDesign standards to all products.



We strictly comply with the latest product energy efficiency regulations and standards in the regions where we operate, including the *Energy-related Products (ErP) Directive* of the EU, the *Appliance and Equipment Standards Program of the U.S. Department of Energy (DOE)*, the *Appliance Efficiency Regulations* of California, the *Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Computer Monitors* (GB 21520-2015), and the *Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Flat Panel Televisions and Set-top Boxes* (GB 24850-2020). We focus on improving product energy efficiency by developing energy-saving technologies, enhancing product performance, and updating product components which enables us to create more sustainable display products.

Energy-saving Technologies & Services

The Super-Efficient Power backlight technology reduces power consumption



The adoption of the latest LED backlight technology can greatly reduce energy consumption without compromising the performance, brightness, and color.

PowerSensor balances product performance with energy consumption cost



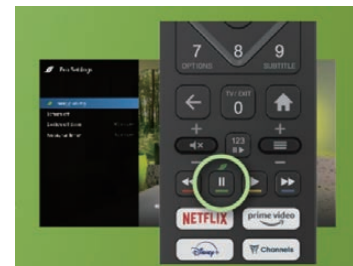
The built-in "PowerSensor" functions as a "human sensor", which can automatically reduce the brightness of the display with infrared signals when the user steps away. This innovation reduces energy cost by 70%.

LightSensor balances optimal brightness with minimal power consumption



The built-in "LightSensor" utilizes smart sensors to adjust image brightness based on the lighting conditions in the room, achieving perfect picture quality with minimal power consumption.

Green button on TV remote controls



A "green bottom" provides users with various energy-saving options. The remote control is 85% made of post-consumer recycled plastic (PCR), reducing the product's carbon footprint.

The ZeroWatts with zero-power switch



The independent power switch enables complete power cutoff, thus achieving zero power consumption.

High-efficiency power components

The high-efficiency and energy-saving semiconductor material gallium nitride (GaN) is used as a power component, thus improving overall power efficiency by 2%.





Featured Green Products

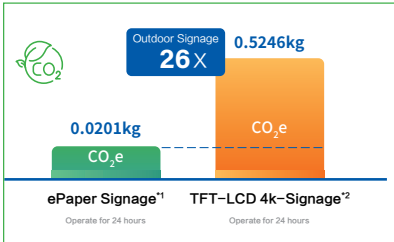
E-paper displays

With a wide range of E-paper displays and application scenarios, such products boast green features including paper-like display, low power consumption, long battery life, and smart eyesight protection.

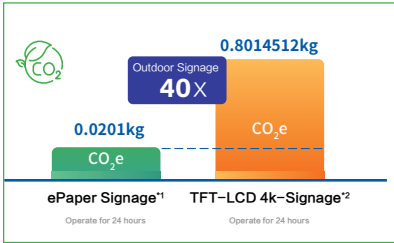


The main product types

- E-paper readers and notebooks
- E-paper displays
- E-paper signage
- E-paper public display



Indoor carbon emission reduction performance of 31.5" E-paper signage²²



Outdoor carbon emission reduction performance of 31.5" E-paper signage²³

Dual-glass monitors



The product adopts glass back panels and recycled aluminum, reducing the plastic materials significantly. Compared to traditional monitors, this approach can lead to an approximate 50% reduction in carbon dioxide emissions.

An super energy efficient and eco-friendly monitor made from 100% recyclable materials



The eco-friendly Philips 27-inch monitor is designed for sustainability, featuring all-plastic body parts, metal chassis, and packaging materials 100% made from recyclable materials. It incorporates multiple energy-saving technologies, saving energy consumption by up to 40% compared to traditional monitors.

Solar-charging earphone



Equipped with solar panel modules, the product can be charged using artificial indoor light as well as outdoor sunlight. After being fully caged, it supports 80 hours of continuous use. It incorporates 35% post-consumer recycled (PCR) plastic, thus reducing the carbon footprint.

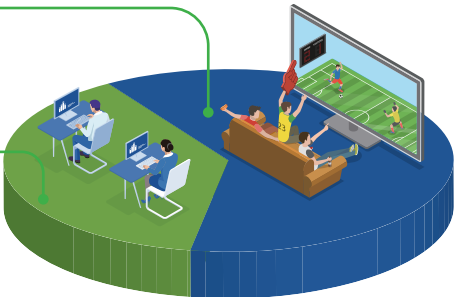


In 2023,
TPV launched **772** low-carbon and energy-efficient products

including **478**

TV models

294 monitor models



²² We estimate the energy savings and carbon emissions reduction achieved by a single 31.5" indoor electronic display compared to a 32" LCD indoor display with reference to the German carbon emission co-efficient (0.30358).

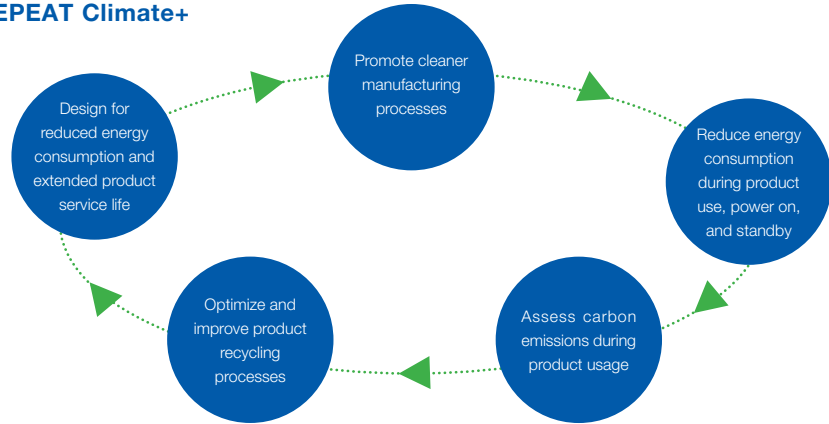
²³ We estimate the energy savings and carbon emissions reduction achieved by a single 31.5" outdoor electronic display compared to a 32" LCD indoor display with reference to the German carbon emission co-efficient (0.30358).



We remain committed to reducing the carbon footprint of our products and gathering carbon footprint data. Through decreased energy and resource consumption, we advance the development of low-carbon products. Our remarkable endeavors in reducing carbon emissions of products have garnered high recognition from both the market and consumers, along with numerous green certifications.

TPV award the “EPEAT Climate+ Champion” with multiple products certified by EPEAT Climate+

As a responsible electronic product manufacturer, TPV fully considers climate impact throughout the product development, design, manufacturing, and recycling. In 2023, our subsidiaries AOC and MMD were awarded “EPEAT Climate+ Champion” by the Global Electronics Council (GEC). Several display products from companies including AOC and Philips have passed the latest climate standard, EPEAT Climate+. These certifications involve more stringent climate standards, including the third-party validation of product carbon footprint, science-based greenhouse gas reduction targets, improvement in energy efficiency, and use of renewable energy.



Green Product Certificates	Certificates obtained in 2023
EPEAT Climate+	120
Electronic Product Environmental Assessment Tool (EPEAT)	60 gold medals
	101 silver medals
ENERGY STAR®	161
TCO Certified	151
China Energy Conservation Program (CECP)	330
China Environmental Labelling Certification (Ten-Ring)	250

TPV participates in formulating the Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Displays

In May 2023, the national standard *Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Displays* (GB 21520-2023) was released. It will be implemented on June 1, 2024, with energy efficiency requirements increasing by 50%. TPV Technology, as an industry participant, contributed to the drafting of this standard. We formed a cross-department collaboration team consisting of experts from different areas of China. The team conducted extensive work, including data investigation, analysis, and discussions. Five suggestions proposed by TPV were adopted, enhancing the standard's feasibility and promoting the green and high-quality development of the industry.

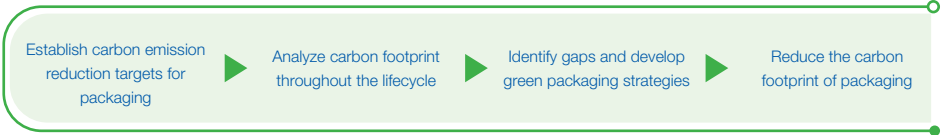
In the end-user market, we continuously enhance the transparency of product sustainability and actively advocate for sustainable consumption. Our operating systems and product manuals provide consumers with energy-saving guidance. We disclose product energy efficiency and sustainable material information on our official website and third-party retail platforms. Available details include the use and proportion of sustainable materials in our products. By providing consumers with information on the environmental impact throughout the product lifecycle, we aim to facilitate the development of sustainable consumption.



Green Packagings

TPV maximizes the use of eco-friendly and recyclable packaging materials that pose no harm to the environment or human health. We continuously innovate our packaging processes to ensure that our packaging products align with ecological and environmental protection standards throughout their lifecycle, from raw material selection and manufacturing to usage and end-of-life treatment.

TPV Green Packaging Mechanism



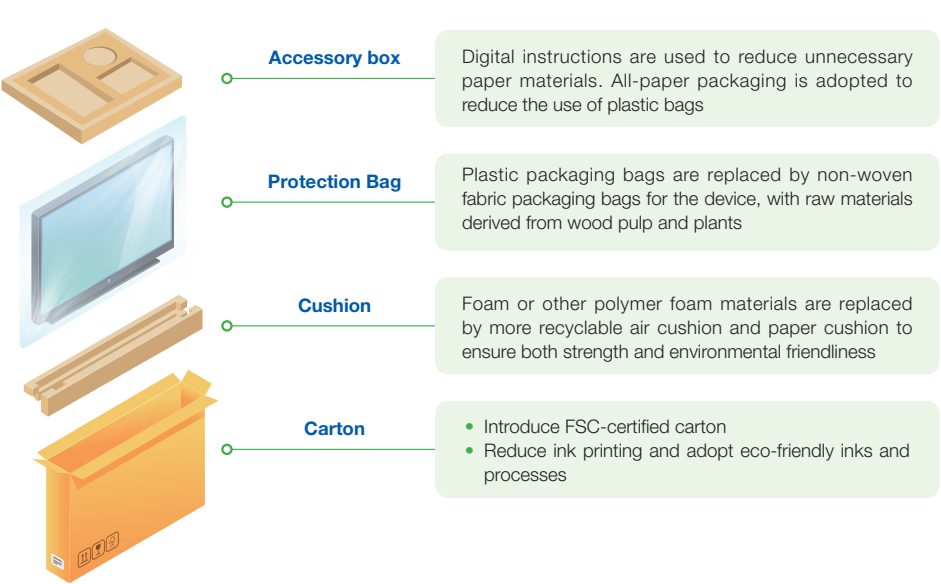
Based on the expectations of consumers and stakeholders and in line with applicable laws and regulations in the locations where we operate, we continuously enhance our requirements and targets for green packaging. We implement various measures, such as reducing packaging, optimizing eco-friendly processes, and adopting recyclable, renewable, and biodegradable materials based on the carbon footprint analysis of the entire packaging lifecycle. This approach aims to increase the proportion of green packaging and reduce carbon emissions in the packaging process.



In 2023
the carton was replaced by FSC MIX 70 certified paperboard, namely at least **70%** of the wood-related materials in the finished product come from FSC-certified forests

The emission intensity per kilogram decreased from 1.11 kg CO₂e to **1.077** kg CO₂e, which reduce carbon emission around **3%**

Measures for Green Packaging



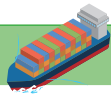


Green Logistics

Green and sustainable transportation is a crucial link of our product lifecycle and a key initiative in collaborating with partners for sustainable development. TPV is dedicated to exploring green and intelligent management models for logistics and warehousing. We aim to reduce energy consumption in storage and logistics processes through initiatives such as material recycling, system optimization, and the adoption of clean energy. These efforts contribute to greening the end-of-life stage of the product lifecycle.

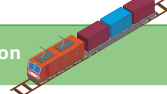
We implement green logistics by optimizing transportation modes, tools, and locations. This involves optimizing logistics plans and collaborating with innovative low-carbon logistics service providers.

Maritime Transportation



We actively select energy-efficient vessels and utilize sustainable marine fuels to reduce carbon emissions.

Railway Transportation



The China-Europe Railway Expressway has largely transitioned to fully electric transportation, significantly reducing carbon emissions.

Road Transportation

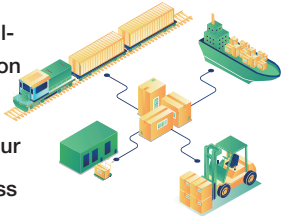


The trucks selected by transportation service providers comply with environmental standards, thus reducing carbon emissions from vehicle exhaust.

In 2023

maritime and rail-sea transportation accounted for

96.5% of our logistics business



01

Improve carbon emission calculation for logistics

Conduct cross-department collaboration to arrange carbon emission data for logistics and improve the quality of relevant data

02

Optimize logistics plans

- Actively adopt transportation solutions with lower carbon footprints. In 2023, TPV Xianyang changed its transportation solution from truck-sea shipping to rail-sea shipping and replaced natural gas and gasoline with electricity in road transportation
- Improve warehouse management and enhance transportation efficiency

03

Collaborate with logistics service providers

- Utilize carbon emission management tools offered by logistics service providers to track carbon emissions from logistics
- Engage with logistics service providers to explore green logistics solutions

Carbon emission reduction measures adopted by logistics service providers

- Committing to net-zero targets and formulating systematic carbon emission reduction plans
- Increasing the use of clean fuels such as methanol in maritime transportation
- Optimizing transportation routes and energy usage methods to improve energy efficiency
- Tracking carbon emissions from logistics through a big data information management platform

Efficient and intelligent green warehousing measures

- Optimizing locations and routes: Locating warehouses near freight markets to reduce short-haul transportation distances, improving pickup and short-haul node efficiency, and improving the Transportation Management System (TMS) for route planning and optimized distribution
- Improving storage space: Optimizing the Warehouse Management Systems (WMS), upgrading the shelf warehouses, and enhancing warehouse utilization
- Recycling packaging materials: Recycling and reusing discarded pallets and paper products generated during transportation to reduce waste
- Promoting automation: Automating processes such as bundling and weighing, and utilizing Automated Guided Vehicles (AGVs) for transportation to enhance warehouse efficiency










Circular Economy

Characterized by resource conservation and recycling, circular economy advocates a economic model which harmonize with nature. Its goal is to replace the linear economic model by eliminating waste and pollution. TPV consistently pioneers circular design, embraces sustainable raw materials, and implements closed-loop resource management across the product lifecycle. Through these efforts, we contribute to the transition of society towards a more resilient economic system.

Circular Economy Management

The Risk Management and ESG Committee coordinates the strategic analysis and target setting for circular economy initiatives. It involves a cross-functional team from various departments such as business, procurement, R&D, manufacturing, and customer service under the ESG Taskforce. Together, they implement specific measures across the stages of “raw materials – manufacturing – transportation – use – disposal” to reduce waste and pollution during operations and promote the circularity and regeneration of materials and resources.




	 Circular Design	 Low-carbon Manufacturing	 Green Packaging & Transportation	 Product Use	 Disposal & Reuse
Main Measures	<ul style="list-style-type: none">Conducting Life Cycle Assessments (LCAs) for productsExpanding procurement and use of recyclable and renewable materialsDesigning products that are durable, easy to repair, disassemble, and reuseReducing the use of non-renewable materials and resources	<ul style="list-style-type: none">Increasing the use of renewable energy in the manufacturing processMinimizing the generation of solid waste and chemicals during the manufacturing processImproving waste sorting and management and promoting zero waste to landfill	<ul style="list-style-type: none">Utilizing renewable and biodegradable packaging materialsReducing the use of non-renewable materials and adopting eco-friendly inksSimplifying packaging design and using eco-friendly inksIncreasing the reuse of turnover materialsPromoting the use of sustainable fuels in logistics	<ul style="list-style-type: none">Developing energy-saving technologies to reduce energy consumption of productsEducating consumers on energy conservation and sustainable consumptionOffering comprehensive and accessible after-sales services, extending the service life of components and software updates, and encouraging consumers to extend product service life through repair and refurbishment	<ul style="list-style-type: none">Establishing a global network of repair service centersEncouraging consumers to participate in cash-back offersPaying disposal fees to ensure proper end-of-life treatmentCollaborating with NGOs on the recycling of e-waste and providing training on dismantlement and disposal techniques
Main Targets	<ul style="list-style-type: none">By 2030, use at least 50% of recycled plastic or ocean-bound plastic in own brand productsBy 2030, use at least 25% of recycled aluminum in aluminum parts of own brand products	<ul style="list-style-type: none">By 2025, ensure that renewable electricity accounts for at least 13% of total electricity consumption (at global manufacturing bases, main offices and operation sites)	<ul style="list-style-type: none">By 2030, use at least 95% of recycled packaging materials in own brand productsBy 2030, use at least 90% of recycled or FSC-certified materials or bio-based materials in packaging of own brand productsSelect low-carbon transportation routes and modes wherever possible, including electrified railroads, cargo ships using low-sulfur fuels, etc.	<ul style="list-style-type: none">By 2025, reduce product energy use of own brand monitors and TVs by 25% from 2020	
Use of Main Renewable Materials/ Resources	Product raw materials <ul style="list-style-type: none">Post-consumer recycled plastic (PCR)Ocean-bound plastic (OBP)Recyclable aluminumBio-based materials	Packaging materials <ul style="list-style-type: none">Recycled paperFSC certified paper materialsBio-based materials	Resources <ul style="list-style-type: none">Renewable electricitySustainable fuelsBiomass fuels	<div><div>Proportion of recycled plastic in the plastic used by own brand monitors</div><div>42.7%</div><div>Proportion of recycled plastic in the plastic used by own brand TVs</div><div>28.2%</div><div>Proportion of recycled plastic in the plastic used by packaging of own brands monitors</div><div>95%</div><div>Proportion of fsc-certified materials in the packaging of own brand TVs</div><div>30%</div></div>	





Use & Innovation of Sustainable Raw Materials


We continuously increase the proportion of sustainable raw materials, explore innovative processes for sustainable materials, and actively collaborate with suppliers and other partners to promote the use and innovation of eco-friendly materials. By doing so, we aim to strike a balance between low-carbon practices and company benefits.

Three Principles For Designing and Selecting Materials

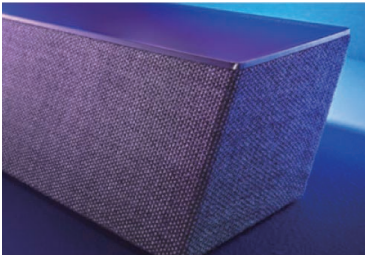


 Reduce carbon footprint

 Adopt renewable and biodegradable materials

 Replace petrochemical-based materials with bio-based materials

TPV has developed a sustainable materials utilization plan aimed at increasing the proportion of sustainable materials in both plastic and non-plastic raw materials. Our sustainable materials include but are not limited to post-consumer recycled (PCR) plastics, bio-based plastics, and compostable bio-based materials. In 2023, we actively used PCR plastics in the monitors of our own brands, with 85% of the recycled plastic (ITE-dreived) from electronics manufacturing and 5% of certified ocean-bound plastic (OBP).












Philips Audio with Eco-friendly Yarns



Partner with Low Carbon Leather Suppliers Muirhead to Innovate Sustainable Products

Furthermore, we focus on promoting the application and innovation of sustainable materials across the industry chain and working together with upstream partners to develop eco-friendly products. In 2023, we deepened our cooperation with Muirhead, a low-carbon leather supplier, to explore compostable bio-based materials. We plan to develop high-strength polylactic acid (PLA) materials by 2025.

Use of Sustainable Materials in 2023

			Amount of use/Percentage
 Use of recycled plastics in own brand products	 Monitors		1,660 tons 42.7%
	 TVs		240 tons 28.2%
 Use of renewable materials in packaging of own brand products	 Monitors	Philips 70% AOC 50%	33,685 tons
	 TVs		8,500 tons 15%
 Use of recycled or FSC – certified materials in packaging of own brand products	 Monitors (recycled materials)		32,000 tons 95%
	 TVs (FSC-certified materials)		2,549 tons 30%



End-of-life Treatment

The rapid development and iteration of high-tech products have led to a surge in e-waste worldwide, imposing burdens and pressures on ecological environments such as soil and water bodies. To minimize the environmental impact of e-waste, we adhere to relevant laws and regulations such as the *Waste Electrical and Electronic Equipment Directive II* (WEEE)²⁴ in the locations where we operate. We fully consider convenient and effective end-of-life treatment, diversify recycling and disposal channels at the end-of-life stage, and actively fulfill the extended producer responsibility for end-of-life treatment.

Main End-of-life Treatment Modes



²⁴ In 2023, the total weight of the company's products on the market is estimated to be 309,013 tons, and this data includes the estimated weight of some products. 42,328 tons of waste electronic equipment were collected on TPV's behalf to comply with producer responsibility requirements of the EU WEEE Directive. Data includes the recycling volume complying with the legislation of EU countries allocated to TPV.

²⁵ Equipment (WEEE) Fund is a government fund established in China to promote the recycling and disposal of waste electrical and electronic products. It plays a significant role establishing China's extended producer responsibility system, standardizing waste electrical and electronic products, implementing eco-friendly treatment, and reducing environmental pollution. So far, the fund has delivered tangible results in terms of resource and environment. The collection of fees ceased in January 2024 according to the latest regulation.



Biodiversity Protection

Biodiversity is essential for the well-being of humanity and lays the foundation for building a shared future for all life on earth. As a response to the call of the 14th Conference of the Parties to the *Convention on Wetlands* to “cherish wetlands and live in harmony with nature”, TPV has formulated a biodiversity policy (refer to TPV Technology’s *Environmental Protection Policy* for details). We commit to minimizing the direct and indirect impacts of our production activities on nature and the biosphere as much as possible. In 2023, we have identified and assessed dependencies, impacts, risks, and opportunities related to nature for the first time with reference to the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD). We have also outlined relevant management processes and performance indicators, thus laying the foundation for the development of a long-term nature strategy.

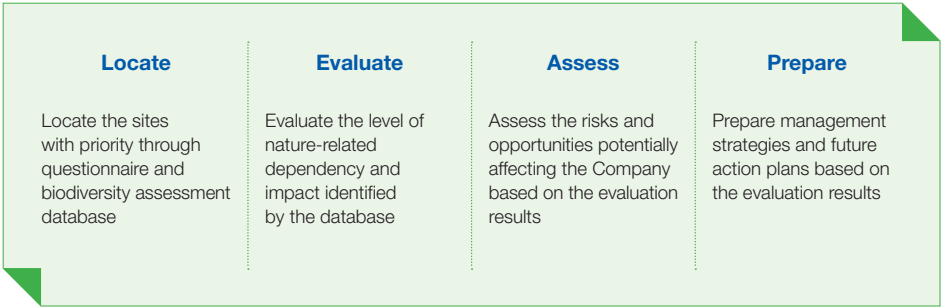
Governance

As the highest decision-making body for the management of nature-related risks and opportunities, the Board of Directors is responsible for reviewing and deciding on ESG matters, including biodiversity. In 2023, the Board of Director has established a Risk Management and ESG Committee to assess the importance of biodiversity to corporate operations. The Board of Boards also reviews and confirms the identified nature-related dependencies, impacts, risks, and opportunities, as well as supervises the implementation of relevant management strategies. The Risk Management and ESG Committee assists in the supervision and coordinates the ESG indicators related to resource conservation and biodiversity.

In 2023, our internal financial experts assessed and scored the financial impact of biodiversity based on “Continuation of use of resource” and “Reliance on relationships ”. This program aims to assess the dependency and impact of the issue on corporate business.

Strategy

As recommended by TNFD, we have adopted the Locate, Evaluate, Assess, and Prepare (LEAP) approach to conduct a detailed assessment of the interaction between our manufacturing bases worldwide and natural ecosystems. Through this process, we identify nature-related dependencies, impacts, risks, and opportunities.



Locate: Determine locations with ecological priority

In 2023, TPV conducted questionnaires at manufacturing bases worldwide to better understand the interaction between corporate operations and natural ecosystems. We assessed environmental sensitive areas within a radius of 50 kilometers. These areas include nature reserves, water resource protection areas, wetlands, wildlife sanctuaries, species protection areas, bird habitats, marine protected areas, national parks, and indigenous reserves.

As shown by survey results, all our manufacturing bases are located in industrial zones approved by local governments and are not listed as environmentally sensitive areas by local authorities. However, eight manufacturing bases are within 10 kilometers of one or more environmental sensitive areas. We have defined them as locations with ecological priority, as shown in the figure below.



TPV's locations with ecological priority



Evaluate: Identify the dependency and impact

For the eight identified locations with ecological priority, we first evaluate the primary dependency and impact of our business on nature using the Encore²⁶ database. Subsequently, we evaluate the levels of dependency and impact through questionnaire and the analysis of relevant environmental indicators via professional databases.

Evaluation Process of Dependency and Impact Level			
1. Identification of dependency and impact		2. Evaluation of dependency and impact level	
Sort out the driving factors of dependency and impact based on the company's actualities and with reference to the encore database	Questionnaire Distribute questionnaires to manufacturing sites with ecological priority, and initially evaluate the dependency and impact of each location on various natural factors.	Database survey Utilize the WWF Risk Filter ²⁷ and IBAT ²⁸ recommended by TNFD for comprehensive analysis. Relevant databases include the IUCN Red List of Threatened Species ²⁹ , World Database on Protected Areas (WDPA) ³⁰ , and Key Biodiversity Areas (KBA) ³¹ database.	Environmental data analysis Analyze environmental indicators for each location with ecological priority site, including water withdrawal, use of packaging materials, solid waste landfill, and incineration.

TPV is mainly engaged in the assembly and manufacturing of electronic components and products. As shown by the results of questionnaire, database research, and comprehensive analysis of environmental data, most of our manufacturing sites have a low level of dependency and impact on natural factors. In terms of dependency, our manufacturing processes do not consume water resources and water is primarily used for daily office operations and greening of manufacturing sites. Therefore, our business has a low dependency on surface water. TPV Brazil may withdraw a small amount of groundwater and is evaluated as having a moderate level of dependency. TPV Fuqing is involved in purchasing paper, wood, and other packaging materials, which is associated with forest resources, resulting in a moderate level of dependency. In terms of impact, the manufacturing sites of TPV Poland and TPV Russia are identified by the database research as having a moderate impact on biodiversity. Additionally, TPV Poland and TPV Argentina employ compliant landfilling and incineration methods to dispose of solid waste, resulting in a moderate impact.

Evaluation of Dependency and Impact of Locations with Ecological Priority									
Manufacturing Base	Evaluation of Dependency				Evaluation of Impact				
	Biodiversity	Surface Water	Groundwater	Forest	Biodiversity	Water Pollution	Soil Pollution	Solid Waste	Disturbances
Overseas manufacturing bases									
Poland Gorzów									
Brazil Manaus									
Argentina Tierra del Fuego									
Russia Saint Petersburg									
Thailand Prachin Buri									
Manufacturing bases in Chinese mainland									
Fuqing									
Beijing									
Qingdao									

²⁶ Exploring Natural Capital Opportunities, Risks and Exposure (Encore): <https://www.encorenature.org/>

²⁷ WWF Risk Filter: <https://riskfilter.org/>

²⁸ Integrated Biodiversity Assessment Tool (IBAT): <https://www.ibat-alliance.org/>

²⁹ IUCN Red List of Threatened Species: <https://www.iucnredlist.org/>

³⁰ World Database on Protected Areas (WDPA): <https://www.protectedplanet.net/en>

³¹ Key Biodiversity Areas (KBA): <https://www.keybiodiversityareas.org/>



Assess: Analyze nature-related risks and opportunities

Nature-related risks and opportunities are attributed to the Company’s dependency and impact on nature. During the assessment, we further identified nature-related risks and opportunities by focusing on the most dependency and impact factors most relevant to our business, as recommended by TNFD.

	Risk/Opportunity Category		Risk/Opportunity Description	Impact Duration	Dependency/ Impact
Nature-related Risks	Physical risk	Scarcity of water	The global water scarcity may potentially affect corporate production, supply chain stability, and employees’ health Prolonged water scarcity may lead to river droughts, thus affecting water levels, hindering transportation, and even causing supply chain disruptions	Medium to long-term	Dependency
		Forest degradation	Human activities and climate change may lead to forest degradation and affect the availability and service of forestry products and supplies, thus increasing the procurement costs of packaging materials	Long-term	Dependency
	Transition risk	Policy and law	Stringent nature-related policies and laws such as the <i>Convention on Biological Diversity</i> and the EU’s <i>Nature Restoration Law</i> may increase the compliance cost	Short to medium-term	Impact
		Market	Customers and consumers are increasingly concerned about the conservation of natural resources and biodiversity. Failure to promptly adapt to changes in customer and consumer preferences could result in loss of market share	Short, medium to long-term	Dependency & impact
		Reputation	If our operations significantly affect ecosystems and other stakeholders, it could potentially damage our reputation	Long-term	Impact
Nature-related Opportunities	Resource efficiency		<ul style="list-style-type: none">Efforts are mad to develop energy-saving and water-saving technologies as well as improve the efficiency of resource use. It helps to reduce dependency on natural resources while lowering the cost of resource useThe recycling of scrapped products contribute to reducing e-waste and promoting a circular economy	Short to medium-term	Dependency & impact
	Market		Nature-friendly products and services, such as green packaging, are favored by customers and consumers. It may create new business growth points and enhance corporate competitiveness	Medium to long-term	Dependency & impact
	Reputation		The conservation efforts for nature and biodiversity contribute to building a positive brand image and gaining support and trust from stakeholders	Long-term	Impact

Prepare: Formulate management strategies

To better address nature-related risks and seize opportunities, TPV actively formulates strategies for the conservation of natural resources and biodiversity. We develop management actions from the perspectives of Avoid, Reduce, Restore & Regenerate, and Transform.

Avoid

- Develop a biodiversity protection policy to standardize ecological protection requirements for all manufacturing bases and operation sites
- Incorporate biodiversity protection into site selection considerations for all manufacturing bases, avoid construction in environmentally sensitive areas, and conduct environmental impact assessments in accordance with local laws and regulations
- Prioritize product lifecycle management and take into account environmental impacts during design, including manufacturing, packaging, use, and recycling

Reduce

- Opt for eco-friendly materials during procurement, such as FSC-certified wood, renewable, and biodegradable plastics, as well as minimize the impact of value chain activities on natural resources and biodiversity
- Adopt packaging reduction techniques to decrease consumption of paper, plastic, and wood materials

Restore & Regenerate

- Engage in ecological restoration after the completion of construction projects and regularly monitor and assess the impact of the project on the surrounding ecological environment
- Regularly monitor wastewater and air emissions, and ensure compliant disposal of solid waste

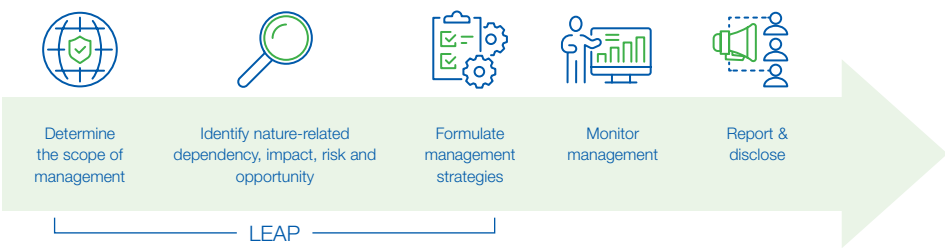
Transform

- Implement energy-saving and water-saving technology upgrades and innovations to improve the efficiency of resource usage
- Recycle packaging materials and scrap products and promote a circular economy model
- Promote responsible procurement, establish supplier risk management mechanisms, mitigate nature-related risks in the value chain, and facilitate the green transformation of the value chain
- Leverage industry influence, regularly organize biodiversity protection and training activities, as well as mobilize employees, communities, and other stakeholders to take joint action



Natural Risk & Impact Management

In the face of the various challenges brought by ecological degradation and biodiversity loss, TPV actively carries out risk identification, assessment, control, and disclosure to continuously enhance its resilience to natural risk. During the risk identification, TPV has carried out questionnaire for all manufacturing sites for the first time to identify potential risk factors around the locations where they operate. Through questionnaire analysis, with reference to the latest trends and relevant literature, we summarized a list of natural-related risks, formulated management strategies, and submitted them to the Risk Management and ESG Committee for review. Looking ahead, we will continue to monitor risk management practices and regularly report progress on disclosure activities. Meanwhile, we will gradually explore the integration of natural-related risks into overall risk management process, thus further extending to value chain risk management.



Metrics & targets

To promote the conservation of biodiversity and natural resources, we have established management targets for natural resources most relevant to the Company, namely water and forest. Measures and related indicators for the protection of water and forest (including water withdrawals and packaging materials used) can be seen in the section “Low-carbon Operations”.

- Water

Maintain total water withdrawals at 2021 levels, namely **1,991,300 tons**

- Forest

By 2030, use at least **90%** of recycled or FSC-certified materials or bio-based materials in the packaging of own brand products

Over the years, TPV has been committed to tree planting, bird conservation, and other environmental initiatives. Through training, public-welfare education, and other methods, we actively promote green environmental concepts to employees and the community. These efforts demonstrate our commitment to ecological conservation through practical actions.

Tree planting

- Each manufacturing site organizes tree-planting activities during Arbor Day
- TPV Fuqing initiates a public-welfare environmental program called “TPV Forest”
- TPV cooperates with ForestNation to advance the “Philips Monitor Forest” initiative

Wetland protection

- We plant mangroves in overseas communities to conserve mangrove wetland ecosystems

Bird protection

- We join hands with The Explorers to protect endangered bird species such as the scarlet macaw

Nature education

- TPV Xiamen launches a variety of nature education programs, including the campus program on wetland conservation, as well as educational activities for children on protecting migratory birds
- TPV Fuqing organizes cycling events for wetland conservation to encourage public participation in wildlife protection efforts



Protecting biodiversity – “Philips Monitor Forest” Project

In the village of Kwai, located in the Usambara Mountains of Tanzania, illegal logging and forest fires have significantly hurt the local community, leading to food insecurity and low incomes for many residents. Since 2020, TPV has been cooperating with ForestNation on the “Philips Monitor Forest” Project. With every purchase of an eco-friendly Philips monitor, TPV will donate trees to the “Philips Monitor Forest”.

- **Environmental benefits³²:** The project adopts a multi-species mixed planting model to enhance soil fertility, restore vegetation coverage, and enhance the climate-regulating role of the forest. As of 2023, the project covered an area of 58.5 hectares and planted a total of 58,699 trees, absorbing 4,546 tons of carbon dioxide and producing 18,183 tons of oxygen.
- **Social benefits³³:** The project has created 2,592 hours of employment and is expected to generate a total income of USD57,179.84 for local villagers. Approximately 80% of the job opportunities are taken up by women, significantly contributing to local employment.

³² Please refer to the 2023 Philips Monitors Forest Report
³³ Please refer to the 2023 Philips Monitors Forest Report



Philips Monitor Forest

Protecting species diversity – TPV supports the conservation of the endangered Scarlet Macaw

The Scarlet Macaw, the national bird of Honduras, holds significant cultural importance as a symbol of ancient Mayan civilization. TPV cooperates with The Explorers, a partner of UNESCO, to launch a conservation project for the Scarlet Macaw in Honduras. This initiative aims to support the conservation and breeding of Scarlet Macaws as well as popularize knowledge on bird conservation. In 2023, the project raised a total of 32 Scarlet Macaw chicks and reintroduced 10 of them into the wild.



Scarlet Macaw

Caring for Ecology – TPV's brings biodiversity education to the school

TPV has, together with some non-profit organizations, launched the “Caring for Ecology: TPV Leads the Way” program for schools in Xiamen for two consecutive years. This program aims to raise awareness of biodiversity conservation among community youth by holding biodiversity lectures and field trips on wetland and bird conservation. Featuring classroom lectures and outdoor field trips, the project covered six schools in 2023. There were six classroom sessions and four outdoor field trips. Over 100 parent-child pairs participated, totaling 472 participants, with a total duration of 880 minutes.



TPV Xiamen Organizes An Employee and Family Visit to the Xiamen Xiatanwei Mangrove Park

Green cycling for wetland protection

In October 2023, TPV Cycling Club organized a team of 12 employees to participate in the “2023 Minjiang River Estuary Wetland Wildlife Protection Campaign and the 8th Changle Cycling Challenge”. During the 85-kilometer green cycling event, TPV's cyclists learned about the laws and regulations related to the conservation of wildlife and plants as well as promoted biodiversity conservation.



TPV Cycling Club Contributes to Wetland Protection



Product Quality & Safety

TPV is in relentless pursuit of providing customers with exceptional products and services. We adhere to strict product quality management throughout the entire product lifecycle. Anchoring on the long-term goal of “pursuing superior and being the industry leader in quality”, we uphold the spirit of craftsmanship and provide the best services with uncompromising quality.

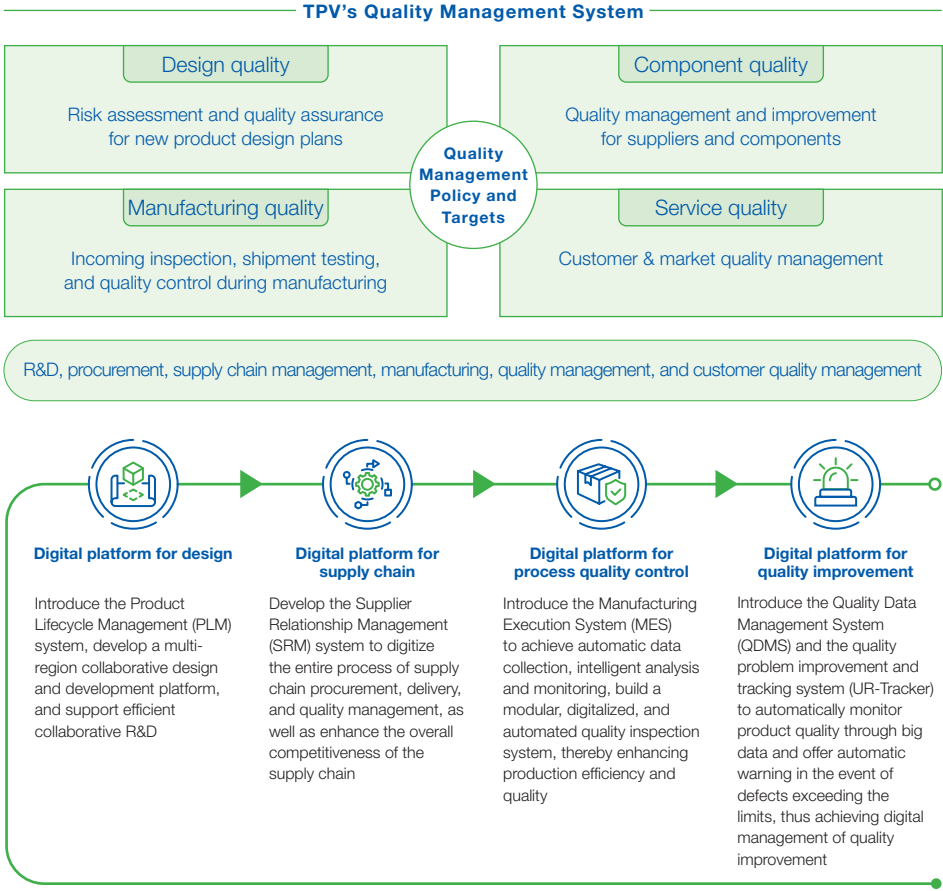
Product Quality Management

TPV strictly abides by the applicable laws and regulations of the countries and regions where it operates throughout the product lifecycle. To standardize management processes, we have established various management systems related to product quality, including the *Quality Manual*, the *Raw Material Inspection Procedures*, the *Process Control Procedures*, the *Product Labelling and Traceability Procedures*, the *Substandard Product Control Procedures*, and the *Finished Product Shipment Management Procedures*. Adhering to superior quality, we have established a comprehensive quality management, organizational support, and digital platform support system covering the entire process of design, R&D, procurement, production, deliver, and after-sales service. In terms of organizational structure, TPV has long been committed to improving and innovating standards and management processes in practice. We have established a quality management system organization led by the General Manager of each manufacturing base and coordinated by various functional departments. The management regularly holds meetings to coordinate quality management work. For example, the product quality improvement team has been set up to regularly organize activities to improve product quality as well as promptly respond to product quality requirements from internal and external stakeholders with targeted solutions.

In addition, TPV extends its strict quality standards and requirements to its value chain partners. We have formulated the Supplier Assessment and Management Procedures to rigorously oversee product quality management across the entire supply chain, including procurement of raw material and audits of the supply chain. We also communicate product quality standards and requirements to our distributor partners through annual meetings and regular communication channels.

To implement standardized product quality control procedures, our manufacturing bases have been certified by ISO 9001, ISO 13485, IATF 16949, and other product quality management systems, alongside ISO 14001, ISO 45001, ISO 27001, and other management systems³⁴.

³⁴ The coverage data of ISO 14001, ISO 27001, ISO 45001, and ISO 50001 in the table have been assured by third-party providers. See the “ESG Performance Summary” and “Independent Assurance Reports” for details.





We also strengthen training and empowerment for our employees by organizing a variety of activities such as the Quality Control Circle (QCC) team, the “Quality Month” activity, and the “Quality Culture Month” activity. These activities aim to effectively enhance the independent quality assurance capabilities of our manufacturing sites, promote continuous improvement in product quality, and foster a culture of quality involving all employees. In 2023, 96% of TPV Xiamen’s customers were satisfied with the product quality of TV products upon delivery and the first-pass yield rate of TPV Fuqing’s monitors reached 98.3%.

Focusing on superior quality – TPV Fuqing organizes a 7-month QCC activity

In 2023, TPV Fuqing organized a QCC³⁵ quality management activity. It involved 26 quality management circles including the Quality Management Department, the R&D Department, and the Manufacturing Department. Featuring quality control concepts and techniques, the QCC activity aimed to enhance the quality knowledge and problem-solving abilities of all employees. The 7-month event consisted of three training phases, with a total of 120 trainees and over 100 training hours.



“I am Responsible for What I Make” – TPV fosters a quality culture through the “Quality Month” campaign

TPV launched a three-month “Quality Month” campaign under the theme “Making the Display World More Beautiful with Superior Quality”. The campaign featured a series of diverse activities, both online and offline, and covered a wide range of topics. Our employees actively participated in these activities, enriched their knowledge through quality training sessions, and offered suggestions and insights during the “Quality Month” themed meetings.

³⁵ Quality Control Circle (QCC), also known as “Quality Circles”, refers to quality management groups formed by employees. Through regularly held team-based improvement activities, QCC aims to identify, investigate, analyze, and address quality management issues.



TPV Shares Quality Management Experience with Industry Partners

TPV actively participates in quality exchange activities within the industry while strengthening its own quality management practices. In 2023, we shared our quality management experience at the “Chief Quality Officer September Dialogue” forum and contributed insights into high-quality development at the “China Quality (Chengdu) Conference”.

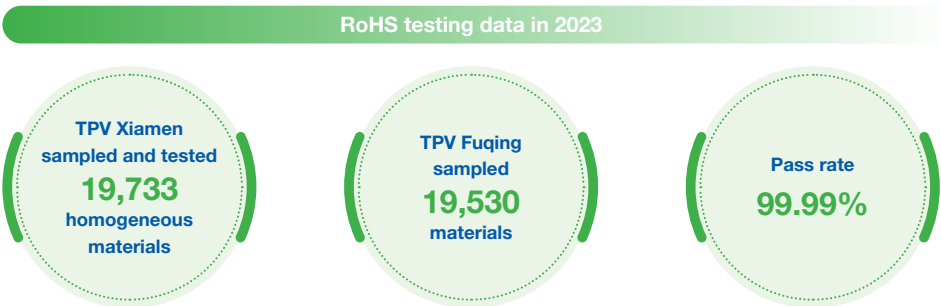




Customer Health & Safety

We strictly adhere to the requirements of IECQ. We have also incorporated the requirements of IECQ QC 080000 Hazardous Substance Process Management into our product lifecycle. Products from all manufacturing bases worldwide comply with the *Restriction of Hazardous Substances (RoHS) Directive* and other waste management regulations such as the *Waste Electrical and Electronic Equipment Directive II (WEEE)* in the regions where they are sold. This approach ensures that the material usage of electronic products and components and the disposal of e-waste are human and environmentally friendly. In 2023, TPV had zero confirmed customer health and safety incidents.

TPV has established a RoHS testing team and laboratory at our manufacturing bases for design and production, which are primarily responsible for examining ten RoHS prohibited substances. We develop test plans based on material and supplier risks and perform sample testing as planned. If suspected non-compliance is detected during testing, the team sends the product for third-party retesting to confirm the risk.



RoHS Testing Lab

TPV has been dedicated to creating high-quality products that integrate practicality, technological innovation, and health-conscious features for consumers. To better protect the health and safety of our customers, we have made consistent investments in the R&D of relevant technologies and obtained patents and certifications. We have also applied these technologies to more products. Monitors of our own brands are designed with a keen concern for visual wellness. Some of the models come with our patented SoftBlue technology. This technology effectively reduces the damage caused by short-wave blue light to the eyes. Additionally, some products incorporate flicker-free technology to help alleviate eye fatigue caused by prolonged exposure to the display. We also focus on developing health features, such as headphones equipped with sensors, to monitor users' sleep quality, heart rate variability, and neck protection.

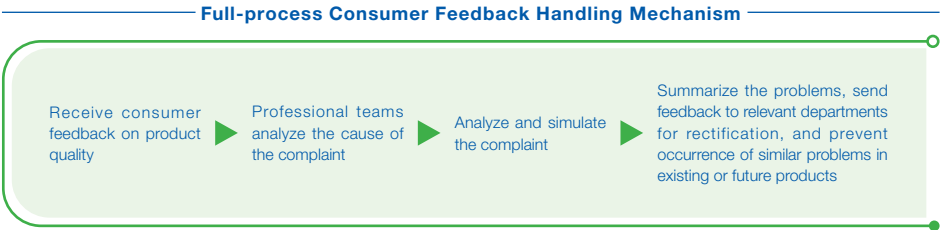


Philips Evnia Gaming Monitor with Low Blue-light Mode and Flicker-free Technology

In addition, we also increase investments in accessible design. We focus on meeting the needs of various minority groups such as the elderly and people with disabilities. For example, we have developed a series of assistive listening headphones designed specifically for people with hearing impairments. Through these efforts, we provide society with high-tech products that are inclusive and caring.

Product recall management

TPV continuously improves its internal procedures and closed-loop processes for product recalls, ensuring the full protection of customer rights and user experience. Leveraging a full-process consumer feedback handling mechanism, we analyze issues occurring during product usage to optimize product quality and minimize the likelihood of product recall incidents. Meanwhile, we provide global logistics support and ensure timely delivery of products to designated warehouses as per customer requirements, thereby ensuring smooth returns and exchanges. Over the past five years, TPV has had zero product recall incidents.





Innovative Development

Innovation is a critical driver for the sustainability of enterprises. TPV has established an innovation network worldwide to accelerate smart development, drive efficient management, and promote product innovation. Moreover, we strengthen intellectual property protection, striving to innovate and deliver superior, smarter display products for consumers. By doing so, we aim to create more valuable digital achievements for the industry and society.

Intelligent Manufacturing & Digital Innovation

In response to the national policy of “Made in China 2025”, we have set the goal of “TPV Intelligent Manufacturing 2025” with the aim to achieve the construction of digital factories and the transformation of intelligent factories. We apply new technologies such as big data, artificial intelligence, 5G networks, and blockchain throughout the process of R&D, production, and service. By optimizing production management and operation processes, we strive to enhance automated and intelligent production.

Digital Manufacturing

In 2023, TPV actively promoted the “Industry 4.0” strategy by empowering various scenarios and demands through digital systems. To further improve process quality control, we developed a Manufacturing Execution System (MES) which integrates multiple systems for quality process inspection, automatic data collection from inspection devices, intelligent analysis and monitoring of quality data, as well as the management of forward and reverse traceability. This pioneering endeavor enables us to achieve end-to-end quality monitoring of products as well as establish a modular, digital, and automated quality inspection system. In this way, we ensure the reliability and transparency of data, effectively improve production efficiency, and enhance intelligent manufacturing.

Milestones of MES

By 2026

All manufacturing bases will introduce and upgrade the MES systems to achieve global interconnectivity of manufacturing data

By 2024

TPV Xiamen plan to fully implement the MES system. TPV Wuhan and TPV Thailand plan to introduce the MES system

2023

TPV Fuqing fully implemented MES system. TPV Xiamen introduce the Surface Mount Technology (SMT) MES system



In 2023, we actively developed the MFG Portal platform with the goal of achieving online management of manufacturing management data, including capital, assets, capacity, efficiency, and quality. This initiative is geared towards facilitating the visualization of various management indicators and effectively improving the efficiency of manufacturing production process management. We are also promoting the application of Great Wall iMOS (Intelligent Operation Management System) to facilitate digitization and data visualization of manufacturing sites.

Automated Manufacturing



Automated Production

We pioneered the industry’s first “lights-out” testing line, which achieves automated operation through automated loading, laser engraving, automatic In-Circuit Test (ICT), as well as automated separation and stacking



Automated Logistics and Packaging

Leveraging the “5G + Finished Goods Warehouse Intelligent Logistics System Project”, we achieve goods handling, wrapping, strapping, as well as logistics and finished product packaging by connecting the Warehouse Control System (WCS), Manufacturing Management System (WMS), and Automated Guided Vehicles (AGV)



Automated Testing Line



Finished Product Automated Packaging Line



Intelligent Cabin



Automated manufacturing achievements in 2023

Introduce intelligent cabins and reduce manual operations by

47 %

98

automated transportation and sorting projects introduced at manufacturing bases both domestically and internationally

Reduces operating procedures that cause employee fatigue effectively





The China Grand Awards for Industry, approved by the State Council, is the highest award for the industrial circle in China and is dubbed as the “Oscar” of Chinese industry



TPV Won the 7th China Grand Awards for Industry

Innovative Talent & Intellectual Property Protection

Technological innovation capability is the core competitiveness of patent and talent-oriented high-tech enterprises. Relying on a global business network and a comprehensive innovation incentive system, TPV explores and cultivates innovative talents, actively participates in industry innovation exchanges, and builds an innovative corporate culture. We also foster an innovative workplace and nurture multiple drivers for innovation. In 2023, in line with the *Innovation Management Measures for Factories in the Chinese Mainland*, we received a total of 722 proposals and adopted 345 proposals related to issues such as product design optimization, process improvement, and material simplification. We also distributed incentives of over RMB 90,000 to employees.

Innovation Capacity Building

In 2023, TPV organized various innovation-themed training sessions for employees and actively promoted collaboration with universities and industry partners through industry-university-research activities and talent development programs.

1 Expand university-enterprise cooperation

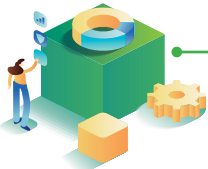
- TPV Xianyang established the “School of Management of Northwestern Polytechnical University – Specialized Degree Practice Base” with Northwestern Polytechnical University
- TPV Xiamen signed a strategic cooperation agreement with Zhangzhou Vocational & Technical College to provide electrician qualification training
- TPV initiated summer internship programs with Xiamen University, Fuzhou University, and Xiamen University of Technology

2 Cultivate innovation capacity

- TPV launches specialized training programs such as “Excellence Class”, “Smart Manufacturing Class”, and “Innovation Class” tailored for different employees including key employees, reserve managers, and professional technical personnel to enhance their innovation capabilities
- TPV’s technical experts participated in the “Thousand Talents Plan for Craftsmen of the Nation” jointly held by Xiamen University in Fuqing

3 Stimulate innovation vitality

- TPV participated in the “Five Small” Innovation Competition for Million Employees in Fujian Province, with two employee innovations winning the second prize and third prize
- TPV participated in the “2023 Employees Innovation, Entrepreneurship, and Creation Competition in Fuqing and won the silver award in the innovation category



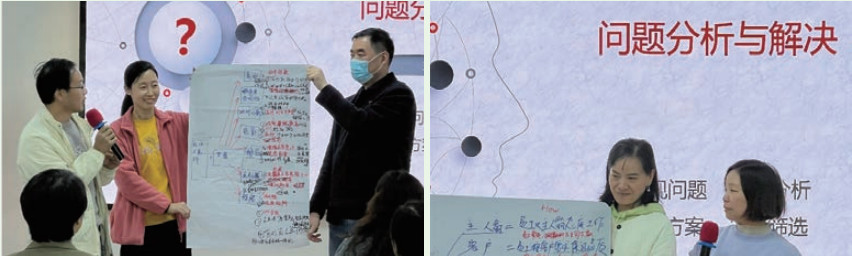
22 % R&D staff with master’s or doctor’s degrees



"Thousand Talents Plan for Craftsmen of the Nation" Training Program



Employees Innovation, Entrepreneurship, and Creation Competition in Fuqing City



Innovation capacity training



Empowering digital development via training

In response to the national call for accelerating the digital transformation of manufacturing, TPV Manufacturing Technology Center organized digital knowledge training to cultivate talent for the establishment of provincial and national-level intelligent manufacturing demonstration factories driven by business departments. In 2023, TPV Fuqing held the first session of knowledge training for digital manufacturing. The event consisted of six sub-sessions, with 190 trainees participating offline and online.



Digital knowledge training

Intellectual Property Protection

Protecting intellectual property is an important means of safeguarding innovation achievements. We have formulated relevant regulations, such as the *Intellectual Property Management and Incentive Measures of TPV Group in the Chinese Mainland* to continuously improve the intellectual property protection management system. These efforts provide institutional guarantee to encourage technological innovation, enhance awareness and capabilities in intellectual property protection, and contribute to sustainable innovation.

In 2023, we launched an online patent proposal system to continuously optimize patent application management procedures and efficiency. TPV Xiamen obtained the GB/T 29490-2013 Enterprise Intellectual Property Management certification and established the "Intellectual Property Evaluation of Rational Proposals" mechanism. This approach further enhances the intellectual property application process, thus effectively protecting our intellectual property rights.

1,278 valid patents worldwide





Build a Sustainable Value Chain

Issues addressed

- Customer Relationship Management
- Sustainable Supply Chain
- Collaboration with Business Partners
- Data Security & Customer Privacy Protection
- Conflict Minerals Management

As a leading company, TPV strives to exert a more positive impact on the industry. We cooperate with upstream and downstream partners to build and maintain a more resilient business ecosystem. We are committed to creating safe, reliable, and sustainable display products and solutions for both customers and consumers.

SDGs addressed





Customer Relationship Management

Effective customer relationship management is an internal driver for TPV to maintain its business and brand influence. Through continuous improvement of customer after-sales service and a full-process customer satisfaction management mechanism, we are committed to establishing relationships with our customers for mutual benefits and trust. We strive to deeply understand and meet the diverse needs and expectations of customers worldwide, as part of our efforts to deliver exceptional customer experience.

Customer After-sales Service

TPV has consistently prioritized fostering smooth communication with its customers. Through efficient and user-friendly channels for customer communication, we gain precise insights into market segments and positioning strategies. We also effectively manage sales opportunities and promote cross-department collaboration, thereby establishing a strong brand image in the market. Over the years, our high-standard customer relationship management mechanism has laid a solid foundation for TPV's long-term sustainability planning and formed a crucial element in realizing our sustainability strategy. In 2023, we significantly improved customer communication and enhanced transparency in information sharing, thereby improving the overall customer service experience and efficiency of relationship management.

Strengthening service support system

We continuously optimize and enhance full-process service information systems, thus providing customers with intelligent and efficient service experience.

Global service platform

To remarkably improve the efficiency and quality of customer communication, the platform offers users one-stop service experience, including convenient fee management, viewing of Service BOM, and access to repair notifications

Integrated search functionality

To strengthen information sharing and transparency, the system integrates features such as sharing of technical documents, repairing documents and one-click search for software. This approach improves information accessibility and sharing, optimizes business processes, and reduces repetitive tasks. Moreover, the mobile work order repair system enhances response speed and service efficiency at repair centers

Information data management

The system aims to achieve unified management of data and information globally, ensure data consistency and collaboration, as well as enhance data quality and reliability. Features such as sharing of technical documents can facilitate cross-region and cross-department collaboration and communication and strengthen coordination efficiency among users, repair centers, and technical support departments

Improving digital service experience

We have formulated a dedicated Digital Customer Experience (DCE) plan to provide customers with support and service inquiries. Our aim is to realize a convenient, fast, streamlined, and goal-driven self-service customer journey.

Optimize self-service experience

- Official website/Email
- Support videos
- Search engine
- Social media
- FAQ

AI-aided tools

- Intelligent routing
- Voice/text-based customer robots
- Big data customer service knowledge base/intelligent retrieval
- Continuous improvement via AI trainers

Goal

Enable customers to swiftly acquire effective services, enhance digital experience and support, and comprehensively improve service efficiency

- Assist customers in searching for the information needed and solving problems
- Assessment objective: User Goal Completion Rate

- Help customers obtain effective support services in the shortest time
- Assessment objective: Robot knowledge matching rate and problem-solving rate

Problem-solving rate of voice robots

67%

Problem-solving rate of text-based robots

82%



- Automatic request for repair:** Users can report issues online via WeChat official accounts and upload fault photos in real-time to help engineers identify the problem directly.
- Service progress at a glance:** Customers can check the progress of their service requests at any time. The system will send notifications for critical milestones.
- Instant follow-up:** If the service is not handled in a timely manner, customers can follow up at any time on their mobile phones. The system will send reminders to the relevant service personnel.
- After the service is completed, customers can provide feedback,** and supervise the improvement of service quality.

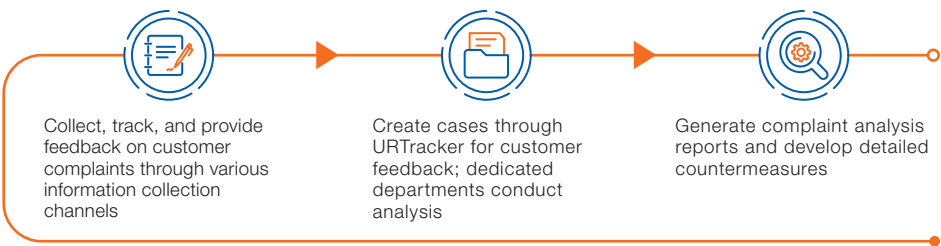
Mutual Product Repair Channels

To meet the diverse after-sales needs of different groups, we provide users with multiple channels for repair requests. Users can request product repairs through various channels such as WeChat, QR code, mobile APP, official website, and hotline. In addition, they can view the latest status of service orders at any time for timely and transparent customer communication. In 2023, we further promoted the request via QR code to facilitate the repair process. The proportion of One-click service request increased by 15% compared to last year.

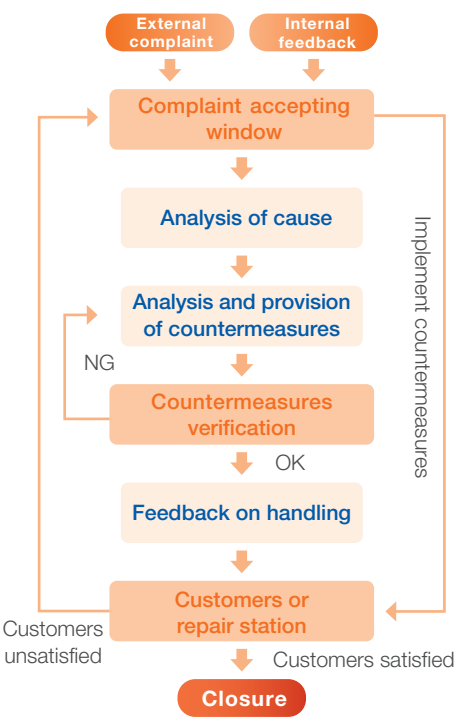
Customer Satisfaction

The comprehensive management of customer satisfaction demonstrate TPV's commitment and dedication to fostering customer relationships. It also highlights our agility in pursuing continuous improvement and innovation. Through these endeavors, TPV has not only made remarkable progress in meeting customer expectations but also laid a solid foundation for establishing long-term and stable partnerships with customers.

Customer Feedback Handling Procedure



Customer Complaint Handling Procedure



TPV adopts proactive improvement strategies to address customer feedback. Through regular follow-ups and communication, we deeply explore customer needs and expectations to gain a comprehensive understanding of issues occurring during the project. This timely and targeted follow-up mechanism enables TPV to respond promptly to customer feedback and swiftly implement effective improvement measures. Through these efforts, we continuously enhance customer satisfaction.





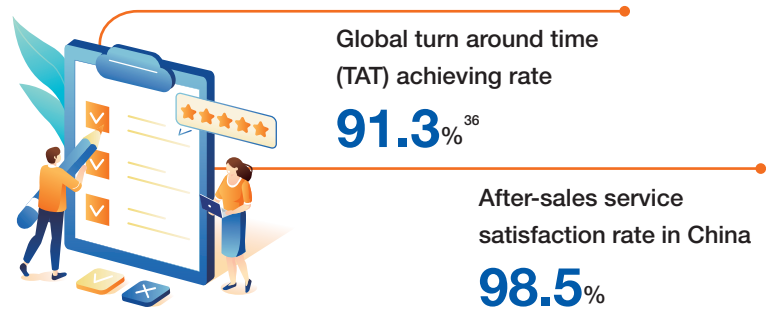
Enterprise/brand customer

After receiving satisfaction feedback from customers, we promptly forward it to relevant internal departments and senior management. We analyze the feedback and implement appropriate measures to address the identified needs, enhance communication and interaction between both parties, to improve customer satisfaction. Through regular surveys, we systematically collect feedback and opinions from customers to gain insights into their perceptions of our products and services, as well as any potential issues and suggestions for improvement. This ongoing communication mechanism helps us forge close connections between the Company and customers, enabling TPV to more adaptable in meeting customer needs.

Customer Communication Channels			
Senior management visits	Quarterly business review (QBR)	Customer quality service window	Irregular meeting
Specialized service team support	After-sales channel	Questionnaire	Email & instant messaging

To strengthen our relationship with brand customers, we have set up dedicated customer service windows. These windows are responsible for overseeing service support and coordination, improving customer loyalty, as well as providing prompt and high-quality services. Furthermore, we offer cost-saving and efficiency-enhancing service solutions to our customers. For instance, we advocate for component repair service plans to minimize machine scrap and reduce service costs. Through these initiatives, we have cultivated mutually beneficial relationships with our customers.

In 2023, TPV passed the re-evaluation and received the “National Commodity After-Service Conformity Five-Star Certification” jointly issued by the General Administration of Quality Supervision, Inspection and Quarantine of China, the Standardization Administration of China, and the National Commodity After Service Conformity Certification Evaluation Committee.



³⁶ In 2023, global turn around time were affected by geopolitical factors in certain regions, leading to fluctuations in the monthly indicator. From November 2023, the indicator began to normalize. We will continue to monitor it closely in the future.

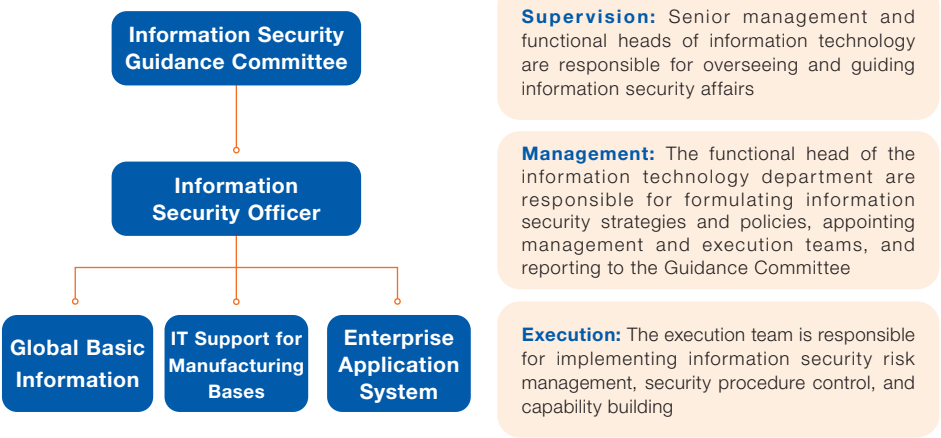
Data Security & Customer Privacy Protection

Sound information security and privacy protection is a cornerstone in building trust with our business partners, customers and employees, as well as in fostering long-term partnerships. We continuously reinforce information security management and customer privacy protection to ensure that authorized information of employees, customers, consumers, suppliers, and partners is used and managed in accordance with the highest legal requirements and ethical standards.

Information Security Management

We continue to strictly abide by domestic and international laws and regulations such as the *Cybersecurity Law of the People’s Republic of China*, the *Data Security Law of the People’s Republic of China*, the *Personal Information Protection Law of the People’s Republic of China*, and the *EU General Data Protection Regulation*. Based on these legal frameworks, we have formulated the *Corporate Policy for Information Security Management* and continuously advanced the construction of the global information security management system. Furthermore, we have established a group-wide systematic information security management organization at the levels of supervision, management, and execution. We diligently fulfill our responsibilities for overseeing, controlling, and implementing data security and customer privacy protection measures. Additionally, we conduct regular internal audit and third-party audits to evaluate the performance of our systems.

Information Security Management Structure





To enhance information security risk management, we have established the *IT Information Security Risk Assessment Procedure*, which involves identifying, analyzing, and addressing risks. We also carry out due diligence investigation into the execution of data security in business operations, thus achieving comprehensive information security risk management. All employees are required to regard information security as their own responsibility. In the event of confirmed unauthorized software usage, breach of sensitive or confidential information, or any other incidents affecting the security of company data and privacy protection, we will take actions such as warnings, penalties, and disciplinary measures in accordance with internal regulations. Employees, customers, suppliers, and other stakeholders are encouraged to report information security breaches via email.

Information Security Risk Identification and Management Procedure



Information security protection

Based on the identification and management of information security risks, TPV has implemented a series of measures to strengthen the protection of information and data security. By further reinforcing and enhancing the foundation of network security, we strive to provide a more secure and reliable data usage environment for both upstream and downstream partners as well as employees.

Data Security System Enhancement Measures

Remote login from internal network

Enable SSL VPN dual-factor authentication for internal network connections to enhance security and stability during login verification, building a protective wall for data and information security for remote login

Group-wide application system

Deploy the Endpoint Detection and Response (EDR) system for group-wide application systems to detect and respond to unknown threats and advanced persistent threats, thereby enhancing the security of servers

External network programs

Implement security level protection for external network application systems, covering 8 application systems and 37 servers, in compliance with national laws and regulations and third-party audit requirements

Security drills & data protection training

TPV has always been committed to raising employees' awareness of security. In 2023, we actively organized various security drills, data security protection training sessions, and cybersecurity publicity week to enhance network security and information confidentiality. Furthermore, we conducted thorough rectification and restoration based on the results of practical tests.

Cybersecurity Drill & Training Tests

- Participate in cybersecurity attack and defense drills
- Enhance cybersecurity protection during critical periods
- Collaborate with third-party security service providers to conduct security protection testing



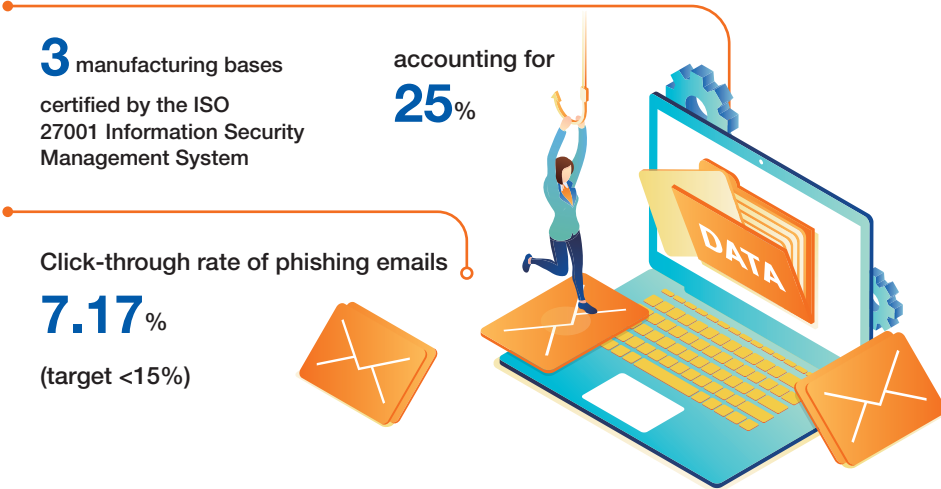
TPV' National Cybersecurity Publicity Week



TPV conducts at least two IT emergency drills each year. We also perform routine patch updates for application systems on a monthly and semi-annual basis. Furthermore, we carry out information security awareness training for employees on a quarterly basis, and provide additional training for participants in phishing drills that trigger security risks. Employees are entitled to email usage only after passing all assessments. This approach can effectively reduce data security risks. In 2023, we conducted multiple awareness training on topics such as data security, information security, and cybersecurity laws through the “TPV E-learning” platform, with a total of 11,737 training hours.



Awareness Training of Information Security



Customer Privacy Protection

TPV prioritizes the protection of personal data privacy in product usage. We have formulated the *TPV Policy for Data Protection* in accordance with the *EU General Data Protection Regulation*. We also have the *Privacy Policy*³⁷ publicly on our website to inform customers and consumers how their personal data is collected and processed. We have designated the data privacy officer responsible for monitoring global privacy and data protection regulations, continuously improving privacy protection procedures, and ensuring the implementation of appropriate technical and organizational security measures. Our aim is to protect personal data from unauthorized or illegal processing, as well as prevent accidental loss, destruction, or damage.

The *Privacy Policy* specifies the types of information collected, purposes and use of collected information, authorized personnel, period of information retention (how long the information is kept on corporate files), users' rights of inspection, rectification, removal, and protection of children's data.

Whistleblowing channel
for privacy protection

→

 privacy@tpv-tech.com



³⁷ Please refer to TPV Privacy Policy and AOC Privacy Policy for details.



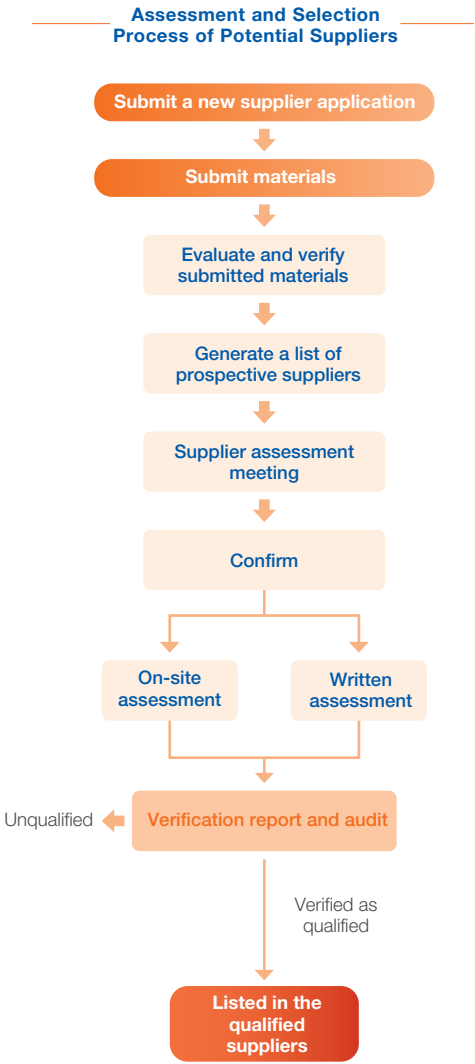
Sustainable Supply Chain

TPV firmly believes that sustainable supply chain management will help us effectively control environmental and social risks in the value chain, thus building a more stable and resilient value chain. We cooperate closely with suppliers and partners in the value chain to continuously improve environmental and labor performance in the industry.

Supplier Management Mechanism

TPV has formulated the *TPV CSR Supplier Code of Conduct* to establish comprehensive regulations and requirements for building a sustainable supply chain. The policy covers various topics such as labor rights, occupational health and safety, environmental protection, and supply chain management performance. It is applicable to suppliers, contractors, subsidiaries, and second-tier suppliers.

TPV has established a full-process supplier management procedure, which includes the assessment of new suppliers as well as daily management and regular audits of qualified suppliers. We have formulated the rigorous *Supplier Assessment and Management Procedures*, which is jointly implemented by the procurement department, supplier quality management department, R&D department, and other relevant departments. It is supervised and approved by the quality management leader. Before introducing new suppliers, we conduct screenings based on their compliance with environmental, social, and other standards, as well as related risks. New suppliers are required to pass the ISO 9001 Quality Management System certification and ISO 14001 Environmental Management System certification. For selected suppliers after screening, we conduct on-site or written assessments to evaluate their comprehensive performance in terms of quality, labor, business ethics, and environmental management. This approach ensures that they do not use child labor or forced labor, adopt hazardous substances, violate safety regulations, or engage in other non-compliance with the law. To become a qualified supplier, suppliers that pass the audit are required to sign the *Quality Contract* and the *Procurement Contract*, which covers the requirement for environmental protection, energy conservation, business ethics, anti-corruption, and other aspects.

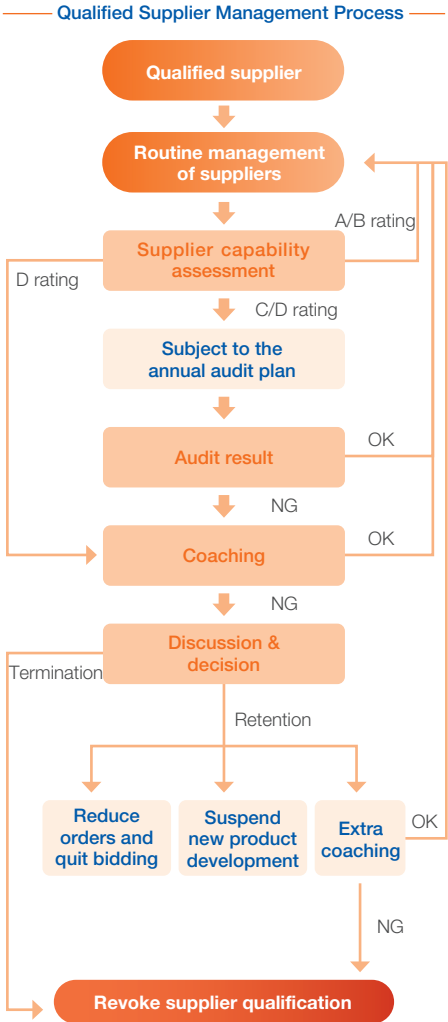




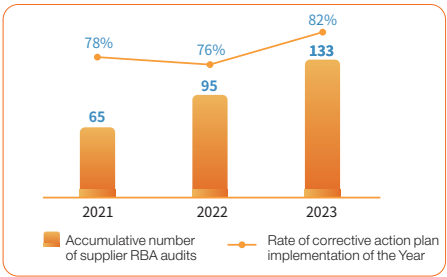
Supplier audit and continuous improvement

TPV carries out supplier audits according to the annual supplier audit plan. The audit issues include quality management, environmental protection, energy consumption, GHG emissions, occupational health and safety, emergency preparedness, the *EU Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)* and other management of chemicals, labor practices, and business ethics. The audit report would be issued to track the supplier's issues and progress of rectification. TPV conducts periodic supplier performance review and assessment on technology, environment, safety, service, and other aspects based on the rule of TQRDC. Suppliers with an A or B rating will be classified for routine management. Suppliers with a C or D rating will be subject to the qualified supplier audit program next year. We will take specific measures with suppliers showing inadequate improvement, including reducing the orders, quitting bidding, and terminating the cooperation of new product development. For suppliers who fail to meet the requirements after two round of corrective coaching, we will revoke their supplier qualification and terminate our partnership with them.

During the Reporting Period, we conducted third-party RBA on-site audits for 25.4% of key suppliers and urged a number of Tier 2 suppliers to undergo the same process. Furthermore, we continuously promote 100% of suppliers signed procurement contracts containing clauses related to environmental, social, and governance requirements, as well as the *TPV CSR Supplier Code of Conduct*.



Distribution of Non-conformances Identified by Supplier RBA Audit in 2023	
Issues	Percentage of priority non-conformances
Labor	57.8%
Health and safety	37.8%
Environment	0%
Ethics	2.2%
Management systems	2.2%



Supplier RBA Audit in 2021-2023



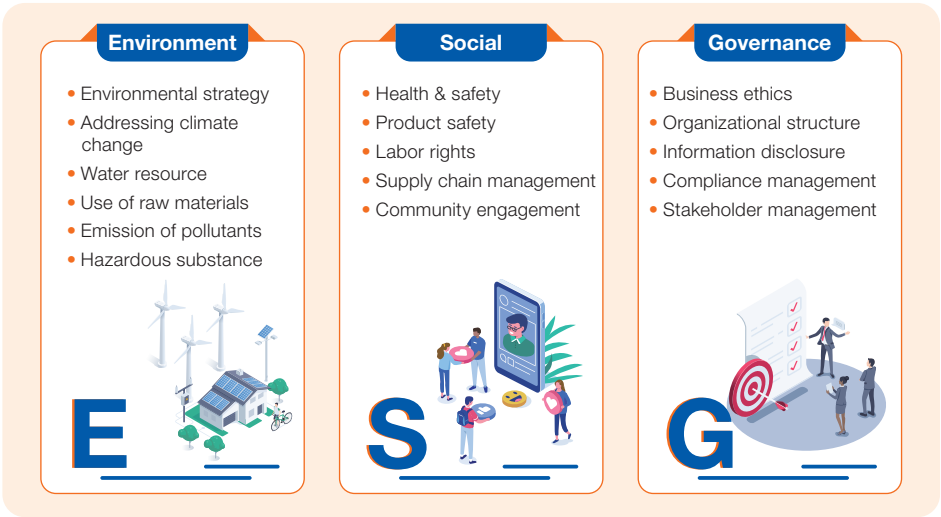
Supply Chain Risk Management

TPV consistently improves the identification of environmental, social, and governance risks within the supply chain and integrates risk management throughout the supplier management process. We prioritize the protection of labor rights and the freedom of association for workers, foster a safe and healthy workplace, and strictly prohibit child labor and forced labor. Our aim is to cultivate an equal and non-discriminatory sustainable supply chain.

In 2023, we initiated the establishment of the TPV Supplier ESG Survey mechanism. The Supplier ESG Survey covers three dimensions, namely environment, social responsibility, and corporate governance, consisting of 16 topics and over 200 indicators. Supplier's ESG rating results are classified into high, medium, and low risk. This internal rating system helps TPV integrate sustainability issues more comprehensively into the supplier management mechanism and supply chain risk management process thereby enhancing the overall risk prevention capability and resilience of the supply chain.



Aspects of Suppliers Screening



TPV has developed an implementation plan for the Supplier ESG Survey. By gradually achieving the goals and implementing the plan, we grow together with our supplier partners and build a more responsible industry chain.

Implementation Plan of the Supplier ESG Survey	
Implementation Plan	Main Tasks
Phase I (2023)	<ul style="list-style-type: none">• Formulate the sustainable supply chain management strategy and pathway• Establish the supplier ESG investigation index system and evaluation rules
Phase II (2024)	<ul style="list-style-type: none">• Launch the supplier ESG investigation system platform• Invite suppliers to participate in training and undergo investigation• Formulate further management regulations based on investigation analysis results
Phase III (2025)	<ul style="list-style-type: none">• Turn supplier ESG investigations into a routine

Sustainable Empowerment of Suppliers

TPV has developed comprehensive assessment mechanisms and management systems. We also organize a variety of training activities to encourage suppliers to continuously enhance their management capabilities and performance in terms of labor rights, environmental protection, health and safety, and business ethics. We also make persistent efforts to help suppliers improve their ability to manage sustainable development. In 2023, TPV held both the supplier conference of own brands and the Global Supplier Conference. Internal and external experts were invited to share information and updates on environmental, social, and governance aspects, as well as relevant regulations and standards, such as the supplier code of conduct, standards of the Responsible Business Alliance (RBA), and management requirements of hazardous substances. This approach ensures that the environmental and social performance of the supply chain aligns with international standards and requirements.

To help suppliers enhance their capability in GHG emission accounting and climate change risk management, we encouraged 5 key suppliers to complete the CDP Climate Change Questionnaire in 2023. We also plan to involve 15 suppliers in the questionnaire in 2024.

We have been continuously conducting capacity-building and awareness training for buyers and supplier auditors to better identify and effectively manage social and environmental risks in the supply chain. Furthermore, we have also linked the performance appraisal of buyers, supplier auditors and supplier evaluation team members to the sustainable supply chain targets set out in the TPV ESG Roadmap to 2030, thereby continuously promoting capacity building in the supply chain.

72.28% of buyers received training on sustainable procurement

47 key suppliers participated in the online RBA training

TPV Fuqing Hosted the Supply Chain Empowerment Conference with the Theme of "Quality empowerment, Sharing and win-win"



TPV Global Supplier Conference 2023

In January 2024, TPV hosted the Global Supplier Conference 2023 to promote its development philosophy and future plans as well as facilitate deep interactions within the value chain. The conference included a dedicated session aimed to introduce ESG regulations and trends in the supply chain, the plans and carbon emission reduction targets set out in the TPV ESG Roadmap to 2030, as well as key directions and requirements for ESG management of TPV's supply chain. Moreover, TPV presented the first "ESG Green Partner Award" to suppliers to encourage continuous improvement in ESG performance and explore opportunities for cooperation in sustainability.



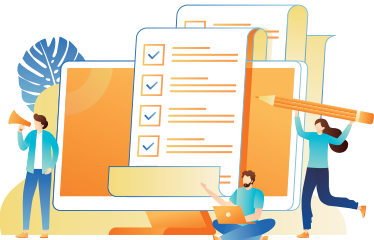
Conflict Minerals Management

As a member of the Responsible Minerals Initiative (RMI) and the Association Connecting Electronics Industries (IPC), we take conflict minerals into account in the supplier selection and management procedure and require suppliers to implement policies that rigorously "prohibit child labor, forced labor and the use of conflict minerals". We have improved the monitoring and management of conflict minerals in accordance with the five-step framework of the Organization for Economic Co-operation and Development (OECD) *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*. Conflict minerals are categorized and periodic risk assessments are conducted based on the internal *Conflict Minerals Risk Assessment Form*. Each year, we require suppliers involved to complete a Conflict Minerals Reporting Template (CMRT) to confirm the traceability of minerals used in the supply chain and conduct conflict minerals risk analysis. High-risk suppliers are required to complete the *Questionnaire of Conflict Minerals* and sign the *Warranty on the Non-Use of Conflict Minerals*. In 2023, we checked the RMI's list of qualified smelters to ensure that minerals from conflict areas are not used in the supply chain. The TPV *Conflict Minerals Report* has been issued for 4 consecutive years.

In 2023

100% of suppliers were surveyed on the use of six conflict minerals in their production process

100% of smelting plants in TPV's supply chain with potential conflict minerals risks participated in the Responsible Minerals Assurance Process (RMAP)



TPV partners with Pact to protect miner's occupational health and safety

AOC and Philips under TPV made continued progress on their occupational health and safety project for miners in conflict mining areas in partnership with the Pact, an international non-profit organization. The cooperation project has benefited 3,914 miners, including 545 female miners. The project involves conveying relevant regulations to members of local mining supervision committees, organizing events to enhance safety and compliance awareness among miners and local communities, engaging practitioners from various regions and representatives of local communities, and expanding the coverage of the occupational health and safety committees. In 2023, a total of 136 mining compliance awareness events were organized, 250 mining regulations handbooks were distributed, and 300 mining regulations posters were posted in operational areas and miner communities.



Health & Safety Awareness Enhancement Course



TPV collaborates with ITSCI to improve safety and gender equality in the artisanal mining sector

As a member of the International Tin Supply Chain Initiative (ITSCI), TPV has played a significant role in promoting responsible procurement within the artisanal mining sector of tin, tantalum, and tungsten (3T) in the Democratic Republic of Congo. In 2024, we collaborated with ITSCI to organize a range of activities. These activities included training and awareness-raising on local mining laws and regulations, occupational health and safety, as well as risk monitoring and mitigation. Moreover, we provided strong support for women-owned businesses, conducted surveys to obtain an overview of artisanal and small-scale miners with disabilities, and engaged with stakeholders to foster dialogue and collaboration. Through these efforts, we sought to recognize the contributions of women in artisanal and small-scale mining while advocating for equality and rights protection throughout the entire supply chain.



Cooperation in Value Chain

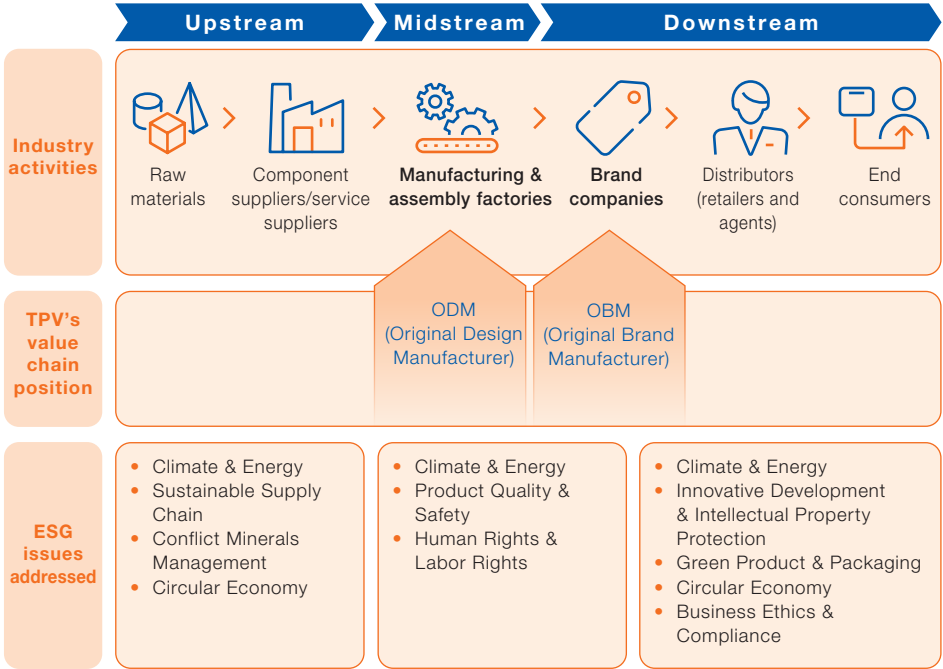
We highly value our cooperation with industry partners, as stable and equitable partnerships are essential for our sustainable development. "Growing together with industry partners" is our unwavering philosophy for the value chain. In 2023, we actively engaged in industry exchanges, shared our experience and practices, and won various recognitions and awards. Leveraging the influence of TPV, we aim to facilitate the construction of a sustainable development ecosystem.

About the value chain

TPV operates both its own brands and manufacturing business in the industrial value chain. Leveraging our advanced manufacturing capabilities and supply chain expertise, we strive to empower the development of enterprise branding and global business. As a leading player in the display industry chain and a key supplier, we aim to exert a positive influence and contribute to the continuous improvement of the overall ESG performance throughout the value chain.



In February 2023,
TPV Xianyang won the honor of **Leading Enterprise in the New-type Display Industry Chain in Shaanxi Province**



TPV attended the 6th China International Import Expo

In November 2023, AOC, Philips, and Great Wall under TPV showed up at the 6th China International Import Expo (CIIE). The expo attracted over 3,400 companies and nearly 410,000 professional visitors. We brought along a diverse range of products in the field of smart display, smart offices smart education, smart transportation, smart healthcare, smart homes, e-sports, and digital factories to showcase TPV's technological innovations and comprehensive industry solutions and ecosystems. We also aimed to empower the development of various industries with TPV's products and solutions.



TPV's Main Exhibition Stand at the CIIE



TPV's Holographic Transparent LED Screen



Create a Safe and Happy Workplace

Issues addressed

- Occupational Health & Safety
- Talent Attraction & Retention
- Diversity, Equality, and Inclusion
- Human Rights & Labor Rights
- Talent Training & Development

Employees’ happiness and satisfaction are the cornerstone of corporate sustainability. Embracing the people-oriented philosophy, TPV Technology values and safeguards the human rights and labor rights of every employee. We prioritize the health, safety, and well-being of our employees and advocate for diversity, inclusion, and equality. Our goal is to create a more decent and valuable workplace for society and provide various career development opportunities.

SDGs addressed





Occupational Health & Safety

TPV is committed to creating a healthy and safe workplace for all employees. We continuously develop a comprehensive occupational health and safety management system to mitigate occupational health and safety risks and safeguard the physical and mental health of all employees.

Occupational Health & Safety Management

We strictly abide by applicable laws and regulations such as the *Work Safety Law of the People's Republic of China*, the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, and the *Management Measures for Emergency Plans for Production Safety Accidents*. We establish occupational health and safety management systems in each manufacturing base, which cover all employees and workers in the supply chain. We also identify and control occupational health and safety risks. Every year, we conduct internal and external audits to maintain the effectiveness of the management systems. Furthermore, we encourage employees to participate in the development, implementation, and performance appraisal of occupational health and safety policies, management systems, and plans. Health and safety standards and procedures are provided in the native language of workers to ensure their understanding. We also carry out regular training to safeguard the health and safety of all employees.

We establish Safety Committees in each manufacturing base and fulfill management responsibilities in the Chinese mainland in accordance with the *Administrative Measures for Safety Committee* in the Mainland. In line with the Environment, Safety, and Health (ESH) system, we enhance safety production systems and priorities. We also establish annual occupational health and safety targets and work plans, aiming to achieve closed-loop management and continuous improvement in occupational health and safety.

The general managers of manufacturing bases serve as safety committee chairpersons	Safety Committees promote the comprehensive implementation of the work safety and occupational health responsibility system, conduct assessments to clarify safety management requirements, and control health and safety risks
The department managers are Safety Committee members	Safety Committees at all levels convene annual work safety meetings to analyze annual performance and risks in safety production and enhance safety production management

Based on the occupational health and safety management system, we have established a regular risk identification process. This process involves analyzing the scope and impact of health and safety risks in daily operations and production activities as well as identifying key health and safety risks. According to the adjustment and development of our business, TPV regularly reviews occupational health and safety risks to prevent potential new hazards.

Ensuring Employee Health

TPV consistently implements various regulations and mechanisms, including the *Management Measures for Occupational Health Examinations for the Factories in the Mainland*, the *Responsibility System for Occupational Disease Prevention and Control*, the *Employee Occupational Health Monitoring and Record Management System*, the *Notification System of Occupational Hazards*, the *Occupational Health Operation Procedures*, the *Personal Protective Equipment Management Procedures*, and the *Emergency Management Rules for Acute Poisoning*. We carry out routine monitoring and periodic testing of occupational hazards each year and publish the *Detection Report of Occupational Hazards* to ensure that the workplace meets occupational health standards and effectively safeguards the health and safety of all employees.

For key positions exposed to potential occupational hazards, we require employees to undergo occupational health examinations before employment, during employment, and upon leaving the job. This approach ensures the life safety and health of all employees. In 2023, we developed an occupational health management system platform to facilitate employees' access to their personal health examination records and better track pre-employment, on-the-job, and post-employment health examinations. In 2023, TPV achieved 100%³⁸ coverage for occupational health examinations in factories in the Chinese mainland. We also identified five employees with occupational contraindications through re-examinations, all of whom have been transferred from their original positions.




Occupational Disease Prevention and Control Measures

- Conduct annual testing of toxic and harmful workplaces to ensure compliance with relevant regulations and standards
- Inform employees of potential occupational hazards, consequences, protective measures, and benefits during the signing of labor contracts
- Offer occupational health examinations before employment, during employment, and upon leaving the job, and provide annual health examinations for employees in toxic and harmful workplaces to ensure their physical health
- The responsible unit shall submit a rectification plan once an occupational disease incident is confirmed by a hospital. The progress and effect of the rectification plan shall be approved by the environmental health and safety department. Additionally, affected employees must receive treatment and return to work upon recovery
- If an employee is found to have a contraindication during a health examination, the responsible unit shall reassign them within one week to a position free of occupational hazards

³⁸ Employees who are unable to participate in medical examinations due to other force majeure factors are excluded.



Occupational Health Risks and Countermeasures in 2023

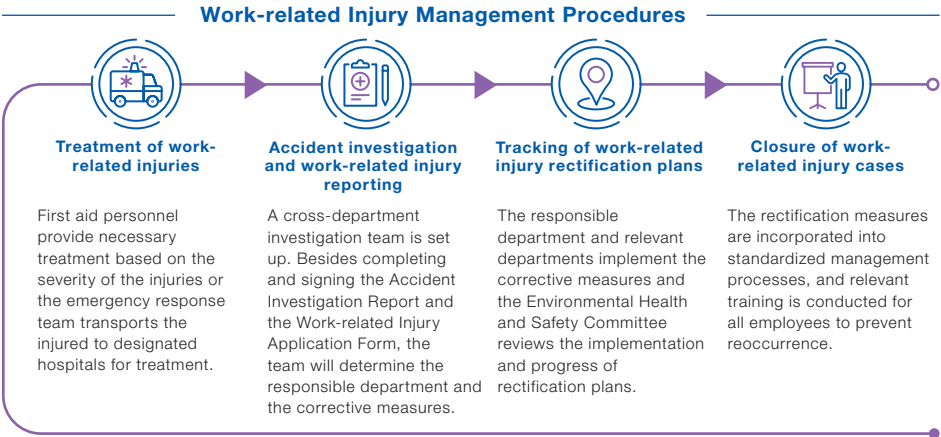
Main Risk	Countermeasure
 Noise, smoke, and dust	TPV engages qualified third parties to evaluate workplace hazards such as noise, smoke, and dust every year. Based on the assessment results, various measures are taken, including but not limited to installing central dust removal equipment, noise reduction equipment, soundproofing in equipment rooms, workplace ventilation improvements, and provision of personal protective equipment.
 Chemicals and hazardous substances	TPV has established standardized procedures and processes for the disposal and management of chemicals and hazardous substances. Workplace assessments are conducted annually to ensure compliance. Employees in key positions receive occupational health examinations each year to minimize the health risks associated with hazardous substances.
 Employee mental health	TPV has launched the Employee Assistance Program (EAP) to care about employees' mental health. Employees can receive assistance through free hotlines, WeChat, and email. In 2023, a total of 3,401 consultations were provided to employees by TPV Fuqing and TPV Xiamen.



Employee Health Clinic

Safeguarding Occupational Safety

To address the major safety risks identified by the occupational health and safety management system, we have established management procedures such as the *Work-related Injury Accident Management Rules*, the *Chemical Safety Management Procedures*, the *Fire and Explosion Emergency Response Management Rules*, and the *High-risk Equipment Management Measures*. We continuously optimize the safety management framework, organize regular safety inspections and drills for general and special equipment, as well as conduct health and safety training. By doing so, we consistently reinforce employees' safety awareness and capabilities and minimize workplace risks. Every year, we regularly organize emergency response drills and special campaigns, including fire evacuation, chemical fire, liquid nitrogen leakage, and confined space operations. In 2023, we had zero major workplace accidents.



Safety Knowledge Contest



Emergency Drills & Safety Training

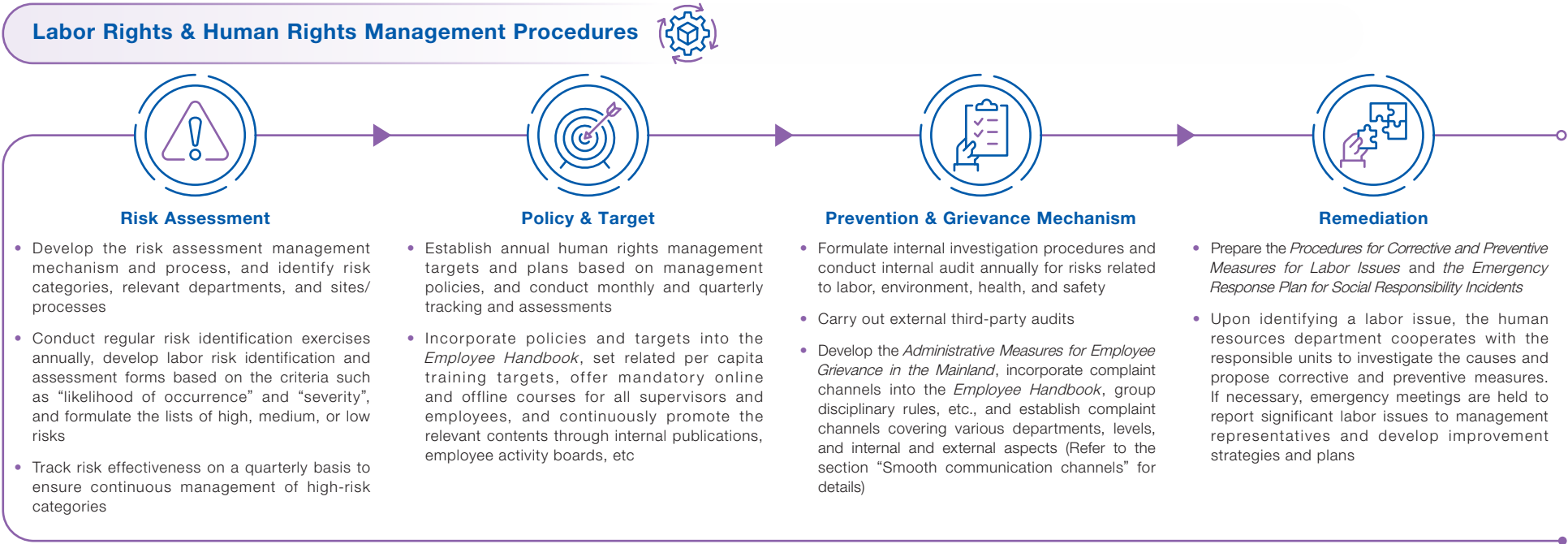


Human Rights & Labor Rights

TPV Technology strictly adheres to the human rights and labor standards set forth by the United Nations Global Compact (UNGC), the International Labour Organization (ILO), and the Responsible Business Alliance (RBA). We support and observe local applicable laws and regulations, and are committed to protecting human rights and labor rights in our operations and throughout the value chain. We care for and uphold the legitimate rights and interests of all stakeholders, including employees, workers in the supply chain, and business partners. Through these efforts, we strive to contribute to the development of a more sustainable and inclusive global economy.

Labor Risk Management

At the group level, TPV has formulated the *TPV Human Rights Policy* and established relevant management systems and procedures in the locations where it operates. We adhere to the human rights and labor protection policy of “protecting labor, respecting human rights, operating with integrity, and giving back to society”. Relevant human rights and labor standards in local laws and regulations are incorporated into internal processes and guidelines. We have established a management structure for human rights and labor rights. The management structure is led by the general managers of each manufacturing base and coordinated by the human resource departments and other functional departments. We implement routine risk assessments and due diligence measures to minimize potential human rights and labor risks. Interns, dispatch workers, and contractors working for TPV are subject to the same personnel management requirements as regular employees are applied. In doing so, we ensure the legitimate rights and interests and physical and mental health of every worker. During the Reporting Period, there were no risks of violating the freedom of association and collective bargaining at any of our manufacturing bases and operation sites, and zero cases of forced labor, child labor, or related risks were observed.





Labor Rights & Human Rights Risk Management Measures



Issue	Policy & Target	Mitigation & Management Measure
Freely chosen employment	<ul style="list-style-type: none"> Implement the <i>Policies on Prohibition of Forced Labor</i> and the <i>Policies for the Management of Resignation in the Mainland</i> Charging deposits, recruitment fees, health examination fees, or any other fees during the recruitment process is strictly prohibited. All work shall be undertaken voluntarily by employees. Employees have the right to terminate their employment relationship at their discretion 	<ul style="list-style-type: none"> Develop recruitment and resignation standard management procedures Post resignation procedures in employee activity areas and allow employees to freely resign according to the procedures with reasonable notice
Prohibition of child labor	<ul style="list-style-type: none"> Implement the <i>Procedures for Prohibition of Child Labor</i> Prohibit child labor in any form at any stage, and adopt effective measures during recruitment to verify the age of all employees. 	<ul style="list-style-type: none"> Automatically identify identity and age through the system Create a checklist for age verification of new recruits
Protection of young workers	<ul style="list-style-type: none"> Implement the <i>Management Measures for the Protection of young workers</i> Ensure that minors are not engaged in work that may endanger their health or safety, and protect the rights of minors in accordance with relevant laws and regulations. 	<ul style="list-style-type: none"> Conduct quarterly audits of positions held by young workers
Working hours	<ul style="list-style-type: none"> Abide by all applicable laws and regulations concerning working hours to ensure that employees are entitled to sufficient rest time. 	<ul style="list-style-type: none"> Establish reasonable schedules for working and rest periods, provide advance notification for overtime with supervisors' approval, and implement automatic warnings for approaching the overtime limit Monitor overtime hours in key departments and send weekly reminders to department manager to strengthen control Evaluate labor intensity based on the principles of ergonomics and motion economy, continuously optimize operation intensity through automated processes, arrange positions reasonably, provide online rest chairs and comfortable rest areas, and install emergency stop ropes and blockers
Wages and benefits	<ul style="list-style-type: none"> the <i>Administrative Measures for Compensation and Benefits in the Mainland</i>, etc. Implement the <i>Administrative Measures for Compensation and Benefits</i> Comply with all applicable laws and regulations regarding employee compensation and benefits, including but not limited to minimum salary, overtime pay, and statutory benefits 	<ul style="list-style-type: none"> Establish relevant attendance and salary management procedures to ensure employees are entitled to statutory holidays and fair and reasonable compensation and benefits; conduct surveys on employees' living costs to ensure that employees receive adequate compensation after deducting living expenses
Humane treatment	<ul style="list-style-type: none"> Strictly prohibit corporal punishment, coercion, or any form of verbal, physical, psychological, and gender-based disciplinary measures; threatening to engage in any such behavior is also prohibited 	<ul style="list-style-type: none"> Continuously conduct training and advocacy through various channels to inform employees and managers of relevant disciplinary policies and regulations and prevent inhumane practices
Non-discrimination/Non-harassment	<ul style="list-style-type: none"> Implement the <i>Policies on Prohibition of Discrimination (Harassment/Retaliation)</i> Promote equal employment and firmly eliminate discrimination on the grounds of race, ethnicity, color, religion, sexual orientation, gender, age, physical ability, political affiliation, membership, marital status, etc 	<ul style="list-style-type: none"> Strengthen training and advocacy through various channels to inform employees of relevant disciplinary policies and regulations and prevent inhumane practices Standardize and strictly enforce the reward and punishment system Provide smooth channels for whistleblowing and complaints
Freedom of association	<ul style="list-style-type: none"> Implement the <i>Administrative Measures for Peaceful Assembly and Freedom of Association</i> Respect employees' freedom of association and right to engage in collective bargaining negotiations through legal and peaceful means; encourage employees to serve as and select employee representatives to directly address issues and difficulties in their work and life; ensure that employees can communicate with management about various issues such as work and welfare without fear of retaliation, threats, or harassment 	<ul style="list-style-type: none"> Standardize the systems of the worker congress and the worker Welfare Committee, regularly select employee representatives and union members and organize various activities



Smooth Communication Channels

TPV encourages employees to express their opinions and suggestions freely and fully. We provide diverse and smooth communication channels and continually refine them based on the latest feedback from employees. By doing so, we aim to create a more equal, open, and harmonious platform for work and communication.

We have provided a wide variety of communication channels to understand the needs and voices of our employees, including their expectations of the workplace. In our overseas operations, we have established labor unions and Town Hall Meetings in line with local cultures. These channels encourage our employees to express their concerns in work and life under an open and democratic discussion for fair and appropriate solutions. Upon receiving feedback from employees, the Company promptly follows it up according to established internal processes and ensures that every employee's voice is "heard and addressed".

Diverse Channels for Worker Voice Survey

	Hotline for whistleblowing and appeals	Chief Executive Officer's email	General Manager's email	Comment box for employees
	"Voices From the First Line" on the "TPV E-learning" platform	Welfare Committee	One-on-one talk with employees	Employee satisfaction survey

TPV fully respects employees' freedom of expression, whether the feedback is positive or negative. We hope to hear employees' real voices with an open and inclusive attitude. In the face of existing issues, we actively seek solutions and optimization pathways to promote closed-loop improvements in internal management.



Protecting employees' legitimate rights and interests through Worker Congress

TPV has established labor unions in accordance with local applicable laws and regulations. We also regularly organize the Worker Congress, during which employees discuss and vote on regulations or major issues directly affecting their rights and interests. In February 2023, TPV Fuqing held the 11th session of the third Worker Congress. During the conferences, representatives proposed suggestions for improving employees' living and working environments and welfare. These proposals also include improving the one-on-one talk with employees and planning activities for the next year. With a focus on major issues, they offered constructive suggestions as the future priorities for employee work.



Worker Congress 2023 of TPV Fuqing

TPV maintains a streamlined and efficient organizational structure to adapt to external economic changes and ensure a stable workforce. When necessary, we adjust the organizational structure and work patterns flexibly based on actual employment needs. We adopt various strategies to minimize the possibility of layoffs. For instance, our labor unions engage in negotiations to adjust compensation and positions. We also provide skill training for temporarily displaced employees to help them adapt to new roles. These efforts reflect our commitment to cherishing every employee. If structural layoffs cannot be avoided, TPV will strive to mitigate the impact on affected employees in strict accordance with relevant laws and regulations.

³⁹ The issues raised include but are not limited to work suggestions, assistance with problems, and complaints about discrimination, harassment, forced labor, and other events that harm the Company's and employees' rights and interests.



Employee Satisfaction Survey

TPV conducts an annual employee satisfaction survey at its manufacturing bases in China. This survey aims to identify and address potential issues promptly based on the latest feedback, gain a comprehensive understanding of employees' views on the Company's development and operational management, as well as help to create a workplace that encourages open communication and continuous improvement.

In 2023

the overall satisfaction of employees in TPV manufacturing bases in China reached

77%











In 2023, we organized the annual employee satisfaction survey through various channels, including the WeChat official account, QR code, and email. The survey focused on dimensions such as working environment and atmosphere, personal training and development, leadership style, interpersonal relationships, compensation and benefits, corporate culture and vision, and overall impression.

Compensation & Benefits

TPV is fully aware that the key to attracting and retaining talent is providing a competitive compensation and benefits package that meets employees' expectations and addresses their concerns.

The Company has formulated the *Administrative Measures for Compensation and Benefits* to clarify the compensation and benefits system. In accordance with the regulations on attendance and compensation management, we ensure that employees are entitled to statutory holidays and fair, legal, and reasonable compensation and benefits. The Company also conveys the compensation and benefits system to employees through labor contracts and the *Employee Handbook*. Employees can also instantly access their monthly salary details through the mobile APP and salary inquiry system. Every year, we develop salary adjustment plans based on business conditions, consumer price indices, and salary surveys in peer industries. We dynamically track and strictly adhere to local salary standards to ensure that our employees' salaries are above the minimum wage standard in the locations where we operate. Besides, we conduct surveys on employee living costs to ensure that employees receive adequate compensation after deducting living expenses.

TPV has established the Worker Welfare Committee ("Welfare Committee") in accordance with the *Regulations on the Organization of Workers Welfare Committee*. The committee includes the Chairman of the Board and the legal representative, with the remaining members elected jointly by the staff. Members are elected for a term of two years, with no more than two-thirds re-elected in a row. The Welfare Committee holds monthly meetings to collect the feedback and opinions from various departments anonymously. During the meetings, the concerns of employees are discussed and addressed. The committee also strives to promote employee welfare and recreational activities. Relevant efforts include distributing various welfare subsidies and consumer coupons, creating a comfortable and convenient office environment, organizing various cultural and sports clubs, and hosting charity sales events.

TPV's Diversified Welfare Benefits	
 Working hours	<ul style="list-style-type: none">We adopt a 5-day, 8-hour work system. Employees working overtime will be paid in accordance with local laws and regulationsWe offer flexible working support globally. A hybrid working mode is adopted in Europe, where employees are encouraged to work on-site for a maximum of 3 days per week to reduce commuting time and individual carbon footprints
 Holiday	<ul style="list-style-type: none">In addition to statutory holidays, our employees enjoy paid annual leave, leave for weddings and funerals, maternity leave, paternity leave, and other types of leave
 Benefits	<ul style="list-style-type: none">We provide five insurances and one fund⁴⁰ for full-time employees in China, alongside accident insurance and free medical check-upsVarious subsidies are offered, including holiday allowance, birthday gifts, wedding bonuses, injury and illness subsidies, funeral subsidies, subsidies for employees in need, scholarships, subsidies for department activities, consumer coupons, and commemorative medals for senior employeesWe actively facilitate the application for talent settlement and talent introduction subsidies for employeesOur labor unions organize employee care activities in summer and medical check-upsWe assist employees in handling retirement pension procedures
 Healthcare	<ul style="list-style-type: none">We offer employees health clinic, doctor consultation online, etcIn 2023, 97% of TPV's employees worldwide were covered by the health and medical welfare system
 Meal	<ul style="list-style-type: none">We provide in-house canteens
 Housing	<ul style="list-style-type: none">We provide a staff dormitoryWe collaborate with real estate groups to develop the TPV community for employees and actively seek government support such as housing earmarked for talents
 Traffic	<ul style="list-style-type: none">We formulate the group-wide standards and relevant management measures for subsidies on homecoming air tickets and provide transportation subsidies for employees to return homeWe operate shuttle buses to and from urban areas and train stations to help employees reduce living costs and commute conveniently
 Education	<ul style="list-style-type: none">We offer support for employees' children to attend school nearbyWe have formulated the Administrative Measures for Childcare Subsidies to provide employees with childcare supportWe launch weekend interest classes and holiday childcare programs for employees' children

⁴⁰ Five insurances and one fund are the endowment insurance, medical insurance, employment injury insurance, unemployment benefits, and maternity insurance, plus housing provident fund.



TPV's Employee Welfare Facilities & Employee Rest Zones



Caring for employees' children during holidays

Every year, TPV organizes various activities for employees' children, including holiday childcare services, factory open days, and recreational activities. These programs aim to help employees solve the difficulties with childcare and foster a harmonious atmosphere of the big family.



TPV Fuqing Runs Free Summer Homework Tutoring Room and Summer Tutoring Class



TPV Wuhan's Open Day



Employees' Children Visiting TPV Fuqing



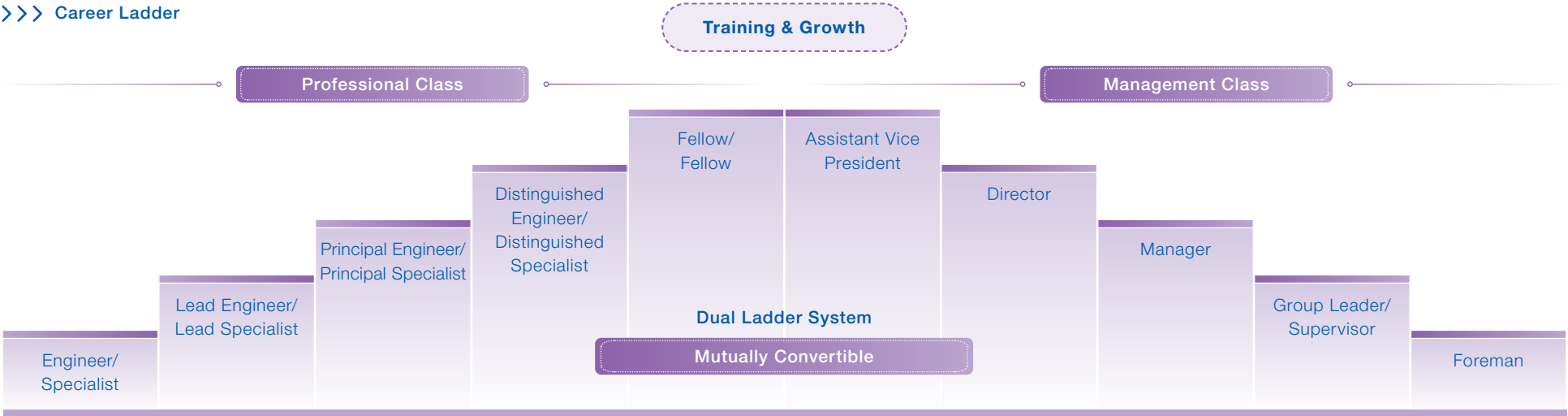
Talent Training & Development

TPV places great emphasis on talent training and development. We have established a sound employee promotion ladder. Every year, we update our systematic employee training plan. We also leverage various technologies to continuously improve employees' professional skills and overall qualities. By empowering each employee to achieve their personal career goals, we inject strong talent momentum into TPV's sustainable development.

Promotion & Incentive

A fair and transparent promotion system is indispensable for the long-term development of talent and the Company. We implement the annual Employee Performance Appraisal (EPA) mechanism across all our global manufacturing bases and offices. We have developed a comprehensive performance appraisal management system and process, which includes department performance appraisal (management by objectives), 360-degree performance appraisal, and cross-evaluation questionnaire, to assess employees' performance from multiple perspectives. We have developed a dual ladder system consisting of "professional class" and "management class", and formulated the *Measures for Employee Promotion of TPV Technology Group* to outline career paths and promotion criteria for each job grade to ensure fairness in promotion. In addition, we have also introduced a long-term incentive scheme to maximize the enthusiasm and creativity of our employees and enhance talent attractiveness.

>>> Career Ladder



⁴¹ Probationary employees are not included in the annual performance appraisal.



TPV's 360-degree Performance Appraisal Method

In 2023

100%⁴¹ of employees received regular performance appraisals



TPV cherishes every colleague and worker who has been with us on the journey to mutual growth and success.

TPV has established the *Incentive Measures for Senior Employees of TPV Technology Group*. Every year, we offer incentives to senior employees who have served TPV for ten years or more.

TPV presents the May 1st Labor Medal to workers with outstanding performance and achievements.



In 2023

We selected

67

model employees

TPV awarded

313

commemorative medals for ten years of service

149

medals for twenty years of service

37

medals for thirty years of service



Systematic Training

TPV focuses on its value system to set up a distinctive training system with comprehensive and diversified courses for employees:

For new employees

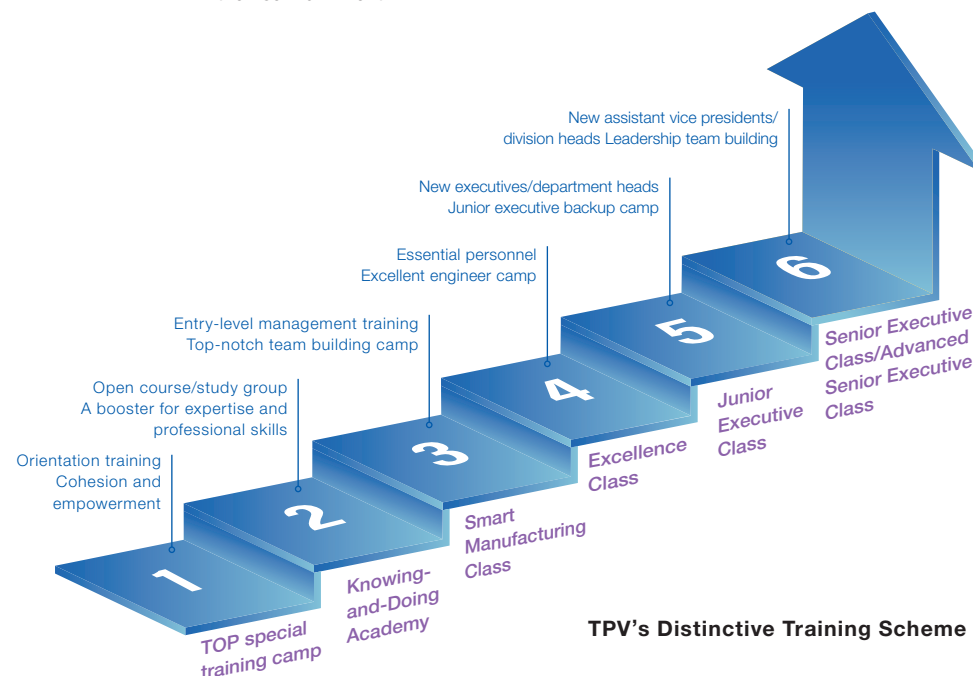
We launch a TOP special training camp to facilitate integration and empowerment of new employees, who are required to participate in orientation training and complete generic courses.

For ordinary employees

We develop the Knowing-and-Doing Academy which aims to become a booster for expertise and professional skills through open courses and study groups. Employees can receive professional or skill training based on the needs of their job roles.

For senior employees

Senior employees of different job grades have access to tailored and professional training based on the skills required for their positions and individual needs. We provide various training sessions for front-line supervisors, key personnel, mid-level managers, and senior executives, such as leadership training courses. These courses include the Smart Manufacturing Class, Excellence Class, Junior Executive Class, and Senior Executive Class. They aim to enhance employees' comprehensive skills and empower their self-fulfillment.



TPV's Distinctive Training Scheme



In 2023



99.5% of
employees received
professional or vocational
skill training



Training for Management of All Levels in 2023

Top Special Training Camp – A training program for middle-level and senior managers

- Cultivating Innovative Leaders, Strategic Thinking, Problem Analysis and Solving, and Comprehensive Leadership Workshop, which aim to cultivate leadership



Junior Executive Class – A training program for talent model

- Course learning, action learning, and personal development plan
- Team project research and presentation aimed to enhance personal management and team-building skills



Senior Executive Class – A training program for middle-level managers

- Offer the Innovative Problem Analysis and Solving, From Professionalism to Management, Problem Analysis and Solving, etc., to enhance innovation capabilities in business and management positions





TPV actively organized diversified offline training practices in 2023

Skill competition

Competitions for job qualifications, Surface Mount Technology (SMT) switch loading skill competition, System Integration (SI) work order switching skills, and forklift skill competition

Skill training

IDP⁴² Development Guidance, Sales Elite Training Camp, Strategy and Practice of Channel Marketing, Financial Management for Non-Financial Managers, Advanced Skills for Excellent Team Leaders, Supply Chain Collaboration and Supply Strategy Management, and Team Self-Diagnosis and Team Development



TPV E-learning Platform

As a digital, mobile platform for business empowerment, the “TPV E-learning” platform covers the “course center”, “live-streaming center”, “growth path”, “information center”, “activity zone”, “voices from the first line”, and “company community”, which facilitate fragmented and on-demand learning.

In 2023, the highlight courses developed on the “E-learning” platform include building enterprises with business ethics, the standards of human rights due diligence standards and forced labor in Europe, business ethics and case studies, the series of courses on Carbon Peaking and Carbon Neutrality, as well as mandatory courses on health and safety.



Cultivating future talents for TPV

TPV actively collaborates with universities to carry out summer internships and other activities to enrich the pool of professional talents. In 2023, TPV Fuzhou and TPV Xiamen organized training camps for newly recruited graduates. Through a series of professional courses, study tours, and team-building activities, we helped these new employees rapidly adapt to their professional roles, cultivate professional skills, and enhance teamwork abilities.



Various Skill Competitions

⁴² IDP, Individual Development Plan.



Diversity, Equality and Inclusion

A diverse talent team serves as the cornerstone of our sustainable global development. Upholding the values of equality, diversity, and inclusion, we deeply respect and cherish the unique qualities and capabilities of each individual. We are committed to providing an inclusive development environment that brings full play to every partner's potential.

Creating an Equal and Inclusive Workplace

Respecting the uniqueness of talent is the foundation of our inclusive culture and joint value creation. We firmly oppose any form of discrimination in recruitment, promotion and compensation on the grounds of race, color, age, gender, sexual orientation, ethnicity, disability, pregnancy, religion, and other factors. At the stage of talent attraction and recruitment, we have established the relevant management measures for employee recruitment to standardize the recruitment, selection, and hiring processes and criteria. We formulate recruitment plans based on the manpower needs approved by each department and announce job vacancies through internal platforms, our official website, and external diverse recruitment platforms. This approach ensures the fairness and transparency of the recruitment and selection process. We strictly prohibit forcing employees or applicants to undergo any medical examinations or health examinations with discriminatory purposes. To effectively safeguard the basic rights of every employee, we have formulated a series of management policies, including the *Administrative Measures for Peaceful Assembly and Freedom of Association*, the *Administrative Measures for Labor Protection of Female Workers*, the *Administrative Measures for the Protection of Pregnant Female Workers and New Mothers*, the *Policies on Prohibition of Discrimination (Harassment/Retaliation)*, the *Policies on Prohibition of Forced Labor* and the *Procedures for Prohibition of Child Labor*, etc. These policies are designed to ensure that there is no child labor, forced labor, discrimination, harassment and retaliation in recruitment, compensation, training, promotion, and dismissal.

In terms of supervision, we have established smooth channels such as a reporting and complaint email, general manager's mailbox, and the human resources department to receive reports of discrimination or harassment incidents. Upon receiving a report, TPV will investigate the matter and take disciplinary action against the violators in accordance with our internal policies. During the Reporting Period, we had zero confirmed incidents of discrimination.



In 2023

the total training hours on preventing discrimination and violation of human rights reached

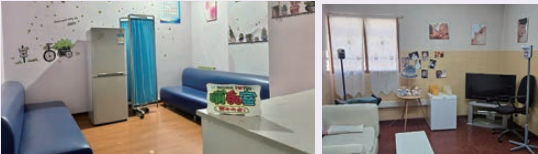
5,238 hours

Awareness Training on Diversity, Discrimination and Harassment issues



Building a friendly and inclusive workplace

- All manufacturing bases and offices are equipped with dedicated lactation rooms to provide a private and quiet space for working mothers
- We provide barrier-free parking spaces, ramps, restrooms, lifts and other accessible facilities
- We improve our office facilities to accommodate the religious needs of employees
- For Muslim employees, we provide separate dining areas. Muslim employees are also encouraged to participate in local festival activities, with schedules adjusted accordingly during the Lunar New Year and Eid al-Fitr. Celebrations are organized in the Muslims' canteen
- We organize training sessions and study groups on "inter-generational communication" to facilitate communication between new and seasoned employees. We also help young employees better integrate into the organization and assist senior employees in handling interpersonal communication issues



Lactation Room



Communication Between New and Senior Employees to Ease Generational Tensions



Dining Area for Muslim Employees



Room for Religious Events



TPV Thailand – Creating a diverse, equal, and inclusive community

At the manufacturing base of TPV Thailand, we uphold the corporate culture of diversity and inclusion. Recognizing the value of diverse talent, we offer equal job opportunities to employees of various nationalities. Our goal is to facilitate their integration into the workforce and enable them to maximize their potential. This inclusive approach fosters stronger and more sustainable cohesion within our organization.

Deliver promising and valuable job opportunities to foreign employees

- Establish a comprehensive and equal recruitment system and support framework, maintain smooth communication with the government departments in the homeland of foreign employees, and provide employment contracts in their native language and third-party HR consulting services.
- Offer equal and smooth career promotion pathways for foreign workers, provide skill training courses tailored to their job requirements, such as Chinese, Thai, or other language courses, and facilitate communication among employees of different nationalities.

Create a diverse and inclusive workplace and community with a sense of belonging for all

- Provide policies and announcements in multiple languages to ensure all employees can easily understand company policies and their rights and interests; offer food options that cater to various cultural tastes, convenient healthcare services, and traffic benefits on rest days.
- Organize various employee integration activities, including local customs, religious events, cultural exchanges, and sports programs.



Celebration of Loy Krathong



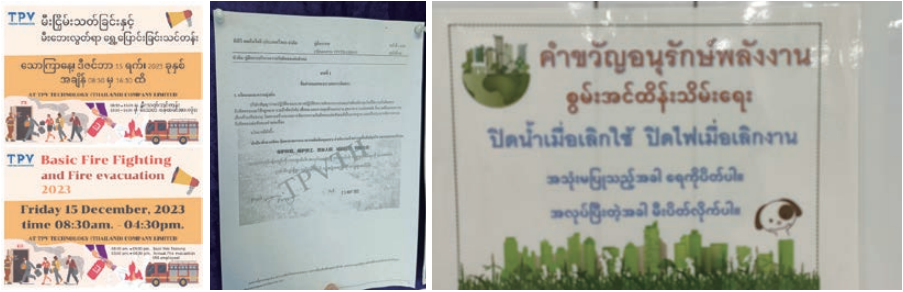
Celebration of the Dragon Boat Festival



Employees Sports Meeting



Employees New Year Party

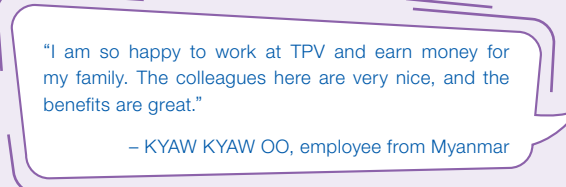


Presentation of Policies and Announcements in the Native Language of Foreign Employees



“Working here has given me more knowledge, a global perspective, and wonderful community engagement.”

– Supawita Juntasri, employee from Thailand



“I am so happy to work at TPV and earn money for my family. The colleagues here are very nice, and the benefits are great.”

– KYAW KYAW OO, employee from Myanmar



The company has provided good job opportunities and career planning.

– LI TIANHENG, employee from China



Female empowerment

With their outstanding abilities, female employees have a strong leading presence in TPV’s journey of sustainable development. TPV highly values and supports the rights and interests of female employees. We also continuously empower their further development in the technology industry.

In 2023

Women in Senior & junior management

29.56%

Women in Sales management positions

32.64%

Women in STEM-related positions

23.08%



TPV Europe joins Women in Tech (WiT) Netherlands to empower female leadership in technology

In 2023, TPV Europe joined the Women in Tech (WiT) Netherlands. WiT is a world foremost organization in the Netherlands for Inclusion, Diversity, and Equity in Science, Technology, Engineering, and Mathematics (STEM), with a mission to bridge the gender gap and empower women to embrace technology. As part of the membership, we will introduce several activities during the course of 2024.



TPV fully considers the needs of female employees and their female families by implementing people-oriented maternity and childcare leave policies. We organize health check-ups specifically for female employees and offer them favorable career development opportunities along with robust institutional support.

TPV’s Maternity Leave and Childcare Leave Policy

Maternity Leave

Pregnant female employees are entitled to prenatal check-up leave and maternity leave in accordance with local laws and regulations



Paternity Leave

Employees can apply for paternity leave to meet family needs in accordance with local laws and regulations



Childcare Leave

Employees are entitled to breastfeeding leave and childcare leave in accordance with local laws and regulations



Caring for women’s health

In September and November 2023, TPV organized two seminars on “Cervical Cancer Prevention and HPV Vaccine” We conducted screenings for breast and cervical cancer, as well as organized the orderly administration of HPV vaccines for more than 200 female employees.



Screenings for Breast and Cervical Cancer in 2023



Balancing Work & Life

TPV cares for every employee and advocates for the balance between work and life. Each year, we design a diverse variety of employee activities and encourage employees to participate in various interest groups and sports cultural and sports activities. By doing so, we foster a healthy and sustainable workplace while promoting harmonious relationships among employees.

TPV Club Activity Mechanism

TPV has formulated related Club Management Measures to enhance the physical and mental health of employees and encourage communication and interaction. We aim to equip all employees with a positive mindset, a healthy body, and a spirit of teamwork to effectively address workplace challenges.

Sports

Basketball, badminton, table tennis, tennis, frisbee, cycling, running, swimming, yoga, baseball, golf, etc.



Hobby

Guitar, flute, painting, photography, calligraphy, choir, handicrafts, etc.



Recreation

Board games, e-sports, etc.



Diverse Club Activities



Running Club



Cycling Club



Table Tennis Club

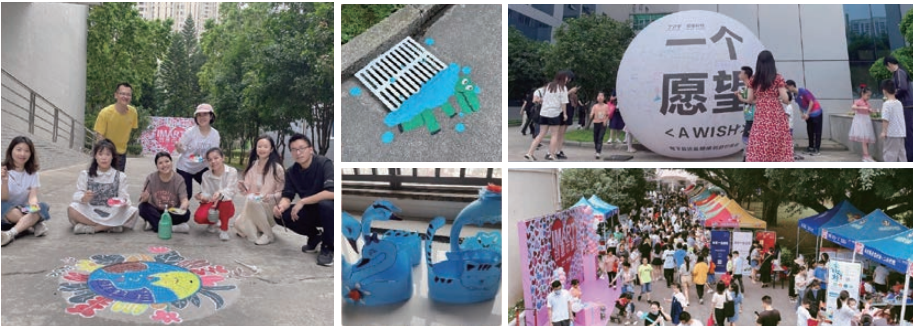


Football Club



TPV Fuqing holds a garden party themed “Love and Nature”

TPV Fuqing organized a garden party themed “Love and Nature”. Featuring the five topics of creative garden party, safety, health, environmental protection, and 520 (a romantic Chinese holiday), the event attracted over 60 vendors from both inside and outside the company, with invitation reposts gaining over 42,000 likes. The garden party featured activities such as environment-themed painting and trading of idle goods. The event aimed to promote resource recycling and spread sustainable concepts.



Garden Party of TPV Fuqing



Foster a Healthy and Upright Society

Issues addressed

- Business Ethics & Compliance
- Investor Relations & Shareholder Rights
- Corporate Emergencies/Public Crisis Management
- Risk Management
- Community Engagement and Contribution
- Involvement & Contribution

Maintaining a fair, just and amiable order of business serves as the foundation for an enterprise to operate and achieve long-term success. Adhering to the values of “honesty, integrity and fairness”, TPV Technology embraces the highest standards for business ethics and compliance management, while continues to improve its risk management system. The goal: to create more sustainable commercial value for shareholders, and build a better home together with stakeholders in our society and beyond.

SDGs addressed



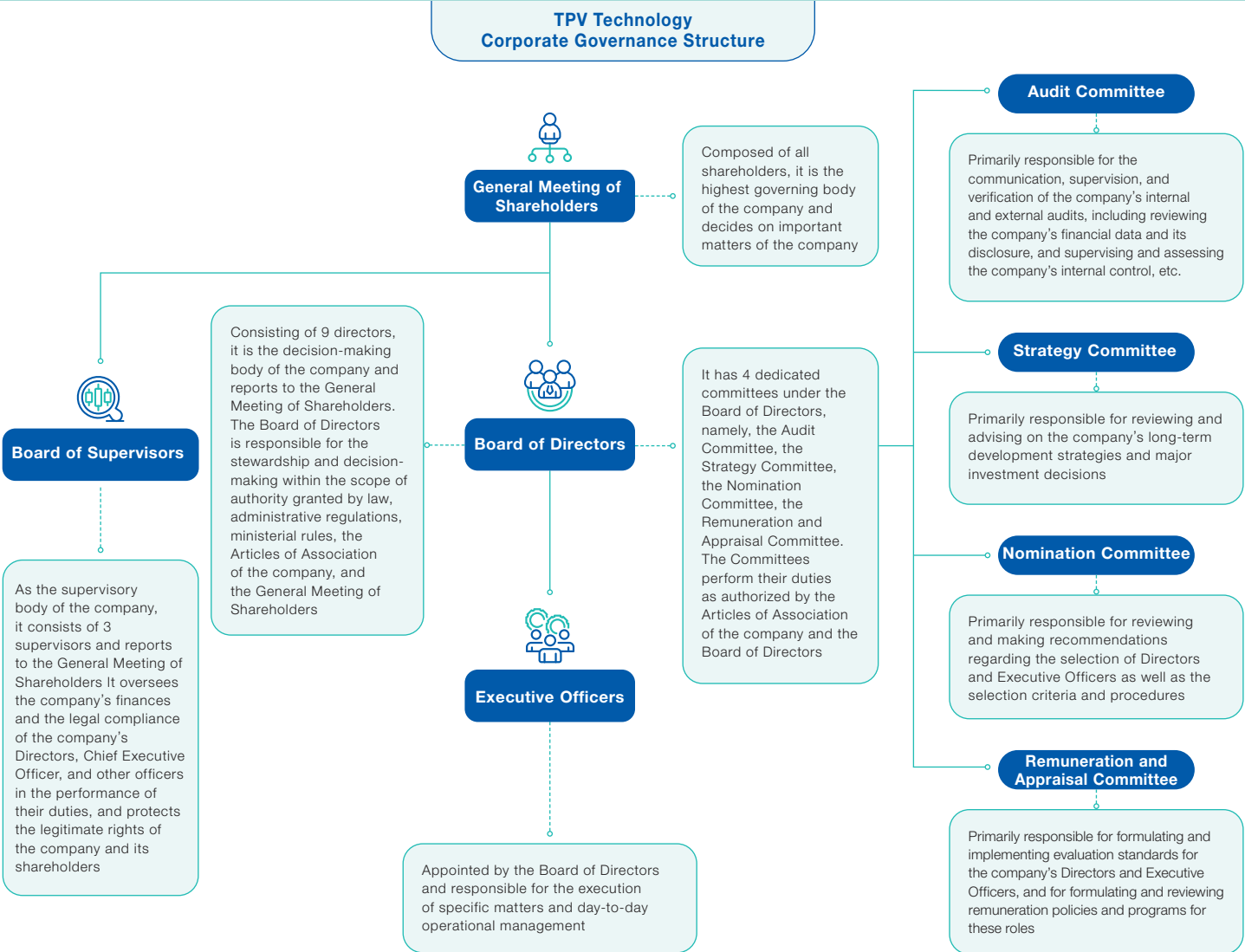


Sound Governance

We strictly abide by the laws, regulations and international conventions on corporate governance in strengthening the building of the Board of Directors. Besides fulfilling the obligation of timely information disclosure, we maintain regular communication with stakeholders, in a bid to generate sustainable economic benefits, and ensure the healthy development of the company in the long run.

Corporate governance

TPV is in strict compliance with the requirements of the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Code of Corporate Governance for Listed Companies*, *Shenzhen Stock Exchange Listing Rules*, and other laws, regulations, and normative documents on the governance of listed companies. That is how we enhance our own governance system and standardize our operations. TPV's Board of Directors, Board of Supervisors, and senior management diligently perform their duties to ensure the standardization and effectiveness of the corporate governance structure.

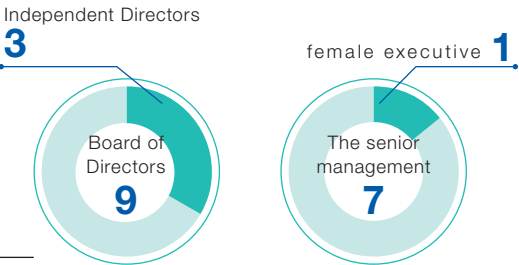




Profiles of members of TPV Board of Directors⁴³

Name	Position	Gender	Age	Nationality	Professional Background	Board Committee
Jason Hsuan	Chairman & CEO	Male	80	Taiwan, China	Systems Engineering Company Management	Audit Committee Strategy Committee Nomination Committee Remuneration and Appraisal Committee
Zeng Yi	Director	Male	59	China	Automatic Control Systems Engineering Business Administration	
Yang Lin	Director	Male	56	China	Geophysics Company Management	Strategy Committee
Sun Jie	Director	Male	58	China	Computer Science and Engineering Company Management	Remuneration and Appraisal Committee
Song Shao-Wen	Director	Male	41	China	Management Science and Engineering Senior Economist	
Yao Zhao-Nian	Director	Male	57	China	Financial Accounting Senior Accountant CPA	Strategy Committee
Zeng Wen-Zhong	Independent Director	Male	82	UK	Electronic Engineering	Audit Committee Nomination Committee Remuneration and Appraisal Committee
Cai Qing-Fu	Independent Director	Male	66	US	Business Administration Accounting AICPA CMA	Audit Committee Nomination Committee Remuneration and Appraisal Committee
Gao Yi-Cheng	Independent Director	Male	54	China	Business Administration	Strategy Committee Nomination Committee Remuneration and Appraisal Committee

There are **9** members on the Board of Directors of the company, including **3** Independent Directors, accounting for **30%** of the total. The senior management comprises **7** members, **1** female executive among them, accounting for **14.29%** of the total.



⁴³ The information was collected as of December 31, 2023

In order for our Board to be more capable of fulfilling its duties, we, in 2023, organized five special trainings, attended actively by Directors online and offline. The trainings aim to reinforce their learning of ESG, the policy on registration system reform and the board system reform, and ultimately to increase the governing capability of the Board of Directors.

2023/3/14

Organizers: China Association for Public Companies (CAPCO)

Courses: Training in Interpretation of the Policy on Registration System Reform

Directors Involved: Jason Hsuan

2023/8/29

Organizers: TPV Technology

Courses: ESG Workshop for Directors, Supervisors and Senior Management

Directors Involved: Jason Hsuan, Sun Jie, Yao Zhao-Nian, Zeng Wen-Zhong, Cai Qing-Fu, Gao Yi-Cheng

2023/11/24

Organizers: JiangSu Association for Public Companies

Courses: Training in the Reform of the Independent Director System for Public Companies in Jiangsu Province

Directors Involved: Sun Jie, Song Shao-Wen, Yang Lin

2023/12/5

Organizers: JiangSu Association for Public Companies

Courses: Training in the Reform of the Independent Director System for Public Companies in Jiangsu Province

Directors Involved: Zeng Yi, Yao Zhao-Nian

2023/12/8

Organizers: Shenzhen Stock Exchange (SZSE)

Courses: The 137th Follow-up Training for Independent Directors of Listed Companies

Directors Involved: Zeng Wen-Zhong, Cai Qing-Fu, Gao Yi-Cheng



Board Diversity

Board diversity helps develop an enterprise in a balanced and healthy way and gain competitiveness. Over the recent years, TPV has been diversifying its Board of Directors in respond to the latest international initiatives for sustainable development. Candidates for director positions are screened and verified by the Nomination Committee before being finally approved by the Board of Directors and at the General Meeting of Shareholders, with multiple aspects having been taken into account. The members of our Board have domestic and overseas backgrounds in displays, financial investment, financial accounting, electronic engineering, business administration, with long experience in company operation and management. They complement each other in terms of knowledge structures, skills, industry experience, and cultural backgrounds. This enables our Board to make decisions more scientifically and reasonably amid complex and changing market conditions and customer needs, thereby promoting its efficiency and ensuring effective operation.

TPV Board Diversity Policy

No less than one-third of members of the Board of Directors shall be Independent Directors, and shall include at least one Independent Director from accounting background;

Members of the senior management may also serve as a Director, but the number of such Directors and employee representative Directors shall not exceed one-half of the total of the Board of Directors;

Independent Directors shall be equipped with the basics of listed company operation, familiar with relevant laws and regulations and the business rules of the Shenzhen Stock Exchange, and have more than five years of working experience in laws, economics, management, accounting, finance or other experience necessary for fulfilling the duties as Independent Directors;

The members of the Audit Committee shall include more than half of the Independent Directors, and the Independent Director from accounting background shall act as the convener of the Audit Committee;

Independent Directors shall account for more than half of the members of the Nomination Committee and the Remuneration and Appraisal Committee and shall act as the convener;

An Independent Director may not be nominated as a candidate for Independent Director within thirty-six months from the date on which he or she has served such a role for six consecutive years;

The Board of Directors office each year organizes trainings for Directors, supervisors and senior management on compliant performance of duties and company operations, with a view to further raising their compliance awareness and enhancing the ability to fulfill responsibilities.





Investor Relations & Shareholder Rights

With a high level of information disclosure, TPV strives to communicate more with shareholders and potential investors and promote transparency of the company. In addition, we have formulated the *Articles of Association of TPV Technology Co., Ltd.* and the *Management System for Investor Relations* in accordance with the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Code of Corporate Governance for Listed Companies*, the *Work Guidelines for the Investor Relations Management of Listed Companies*, the *Shenzhen Stock Exchange Listing Rules*, the *Shenzhen Stock Exchange Self-Regulatory Guidelines for Listed Companies No. 1 – Standard Operation of Listed Companies on the Main Board* as well as other laws, regulations and regulatory requirements.

We attach great importance to investor relations management, and have established various channels for easy daily communication between investors and the company:



We have routine communication with investors through company hotline, “Easy IR”, public mailbox, and respond to investors’ concerns in a timely manner, so that investors’ rights to inquire and to be informed are guaranteed.



We have adopted a wider range of media and way of communication, such as annual report, the official WeChat account and website of the company, through which, we publicize and display our information in full, so as to promote information disclosure and transparency.



We value opportunities to communicate face-to-face with small and medium shareholders at shareholders’ meetings: We hold annual performance briefing sessions, during which the Chairman of the Board & CEO, the financial officer, and certain Independent Directors have in-depth exchanges with investors about our annual performance, business development at present and in the future.

Highlights of Investor Relations Management in 2023:



2022-2023 Annual Information Disclosure Appraisal of Listed Companies in Shenzhen – Grade A

Announcement by the Shenzhen Stock Exchange

2022 Annual Results Presentation Best and Outstanding Practice – Outstanding Practice

Organized by CAPCO

Luanlu – 4th EBS Selection – 2023 Elite Board Secretary

Organized by CaiLian Press



Risk Management

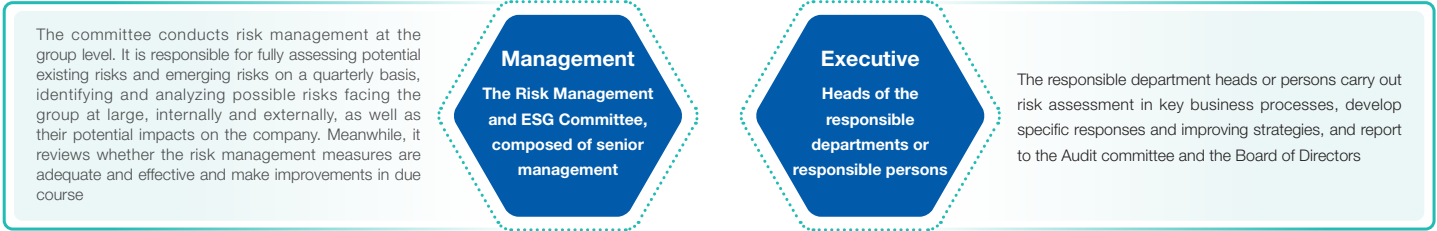
Each year, TPV optimizes its risk management and internal control system to accommodate the new laws and regulations of the places where it operates. We work to ensure corporate emergencies and public crisis are properly managed, and potential risks identified and controlled at an earlier stage and for minimal cost, thus driving sustainable, healthy and stable growth of the company.

Enterprise Risk Management

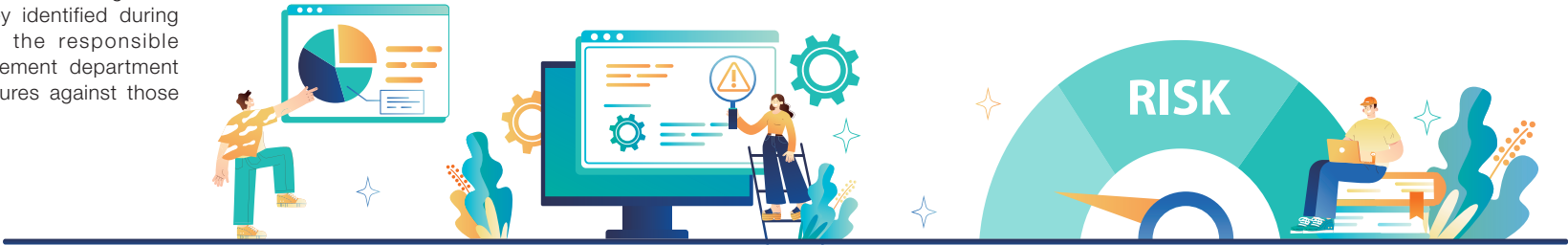
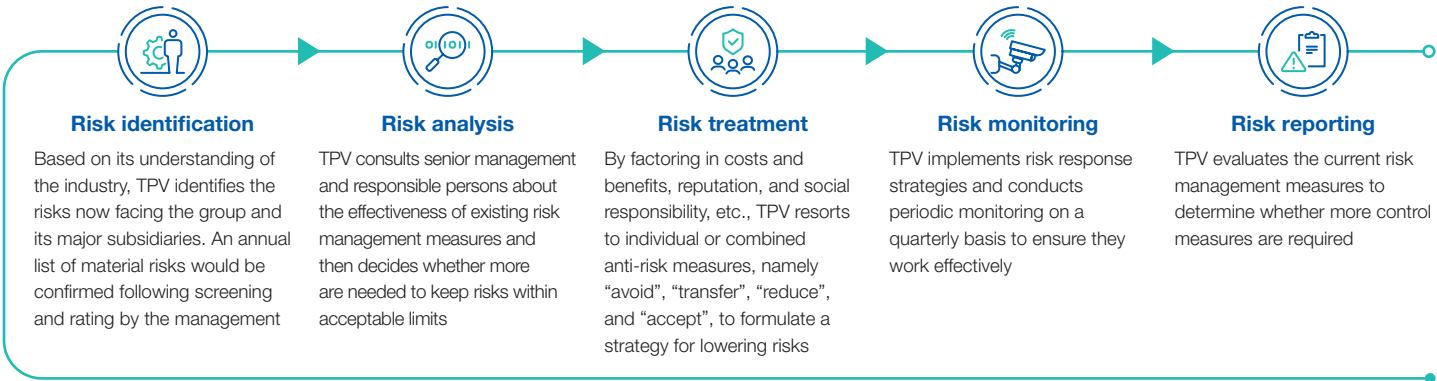
TPV Technology has in place a mechanism for comprehensive risk management. We established a sound organizational structure to manage risks in a scientific and systematic fashion. This involves risk identification, assessment and control, as well as regular report and communication to ensure the overall risk management process is effective and forms a closed loop, which would help us prevent, defuse, and even reasonably assume or utilize risks.

Our communication channels, including whistleblower email, general manager's mailbox and dedicated phone lines, are open to all employees who are encouraged to report potential risks they identified during daily operations, while the responsible persons and risk management department would take prompt measures against those risks.

TPV Risk Management System



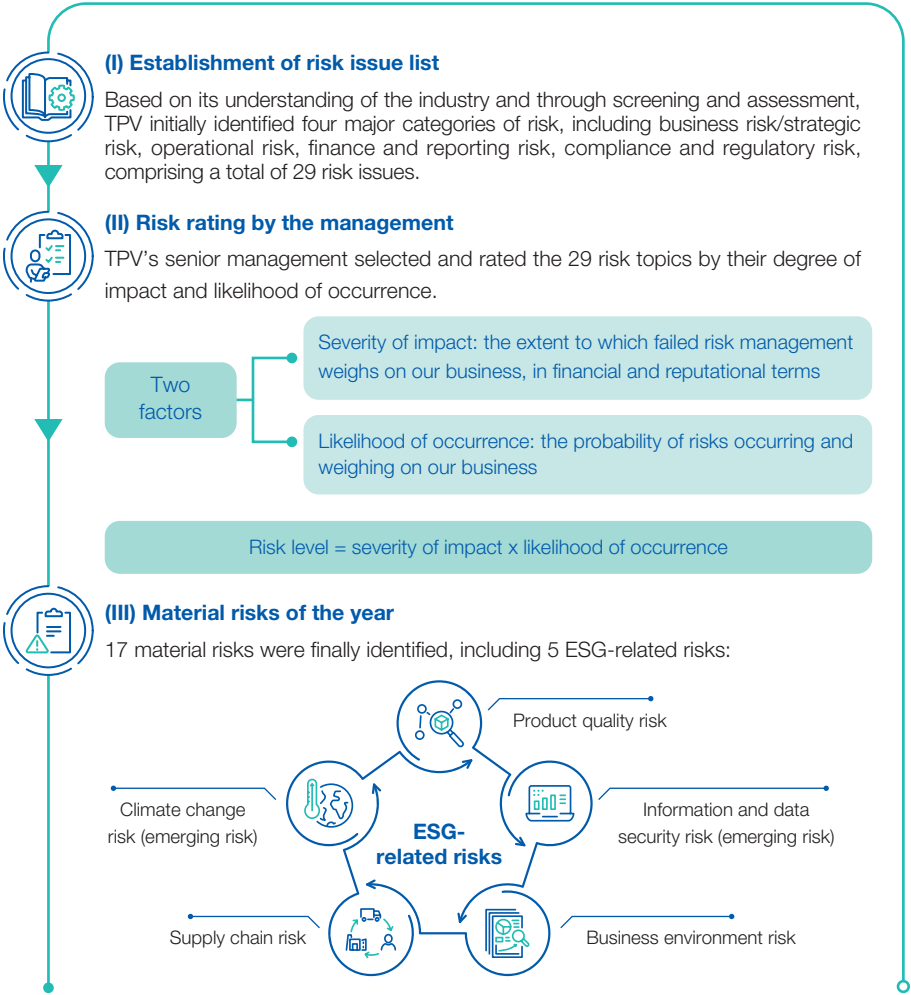
TPV Risk Management Procedures





By referring to the updated *Risk Management Manual* in 2023, TPV conducted annual risk identification across all manufacturing bases and offices. 17 material risks that need to be regularly assessed and monitored were identified as a result, 5 of which were related to ESG, namely product quality risk, information and data security risk, business environment risk, climate change risk, and supply chain risk.

Process and Result of Risk Identification



For emerging risks that may arise in the medium and long term but are difficult to identify at the current stage, TPV has, with reference to the *Global Risks Report* published by the World Economic Forum, initially identified extreme weather events, misinformation and disinformation as the emerging risks most relevant to the company's business.

Emerging risk categories	Risk description	Potential impact	Mitigating actions
Extreme weather events (Corresponding "Climate change risk" identified by TPV)	Such extreme weather events as typhoon, rainstorm, and drought may result in infrastructure damage and supply chain disruptions, while threatening employees' safety and health	Typhoon and rainstorm may damage the manufacturing bases and offices in coastal and low-lying areas, potentially causing localized outages and damage to facilities and equipment, as well as loss of life and property. Disastrous events may also disrupt transportation, leaving supply chain broken and unstable	Develop flood control and emergency measures, conduct routine climate disaster emergency drills, and upgrade facilities and equipment, in order to enhance the adaptability of buildings and manufacturing facilities to extreme weather conditions. Strengthen climate risk management for suppliers to build supply chains that are more resilient to climate events
Cybersecurity (Corresponding "Information and data security risk" identified by TPV)	Such cybersecurity events as malware and virus attacks, phishing, data leakage may disable the company's network information system, upsetting normal operations and incurring loss of property	Cybersecurity events would hit the company's business operations. Data leakage may decrease our competitiveness and lose customers' trust, hence financial losses for the company	Establish an organization for information security management and carry out annual risk assessment of information security and due diligence investigation. Regularly improve the data security environment of internal application systems and external network programs of the company. Conduct and provide cybersecurity drills and trainings for employees

Based on the process and result of risk identification in 2023, we made analysis and strengthened control measures targeting certain material risks:

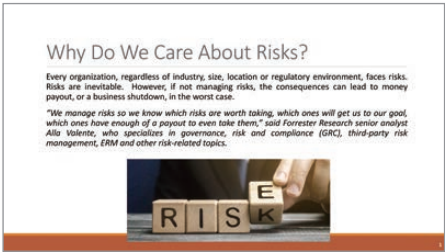
- Given the historical data and the company's goal, we set up scenarios and categorized risks into four levels: very high, high, medium, and low. We will determine the reason why such a scenario is selected, the timeframes and related assumptions upon discussions with the responsible persons, taking into account realities
- For material risks that may cause financial loss, financial data will be considered while analyzing
- We regularly analyze the developments of relevant indicators of material risks, and prepare quarterly risk management reports for review and improvement by heads of the responsible departments or responsible persons



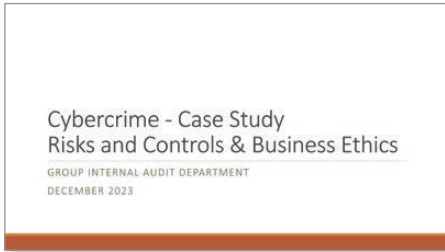
Foster risk management culture

Relying on a robust risk management framework, we promote the idea of risk management throughout our daily operations, in ways to shape risk management culture. We will include key risk management indicators, such as product quality, information and data security in routine performance evaluations of employees. In 2023, for the first time supply chain labor risk and climate change-related risk were taken into consideration in annual performance assessments of senior management.

At the same time, TPV provides various risk training and scenario exercises to all employees to enhance their awareness and capabilities of risk management. In December 2023, the group internal audit department organized special trainings on “business ethics risk” and “information and data security risk”, both being material risks of the year. Through shared cases, employees were urged to exercise extra vigilance against fraud and cybersecurity risks.



Risk Management Training



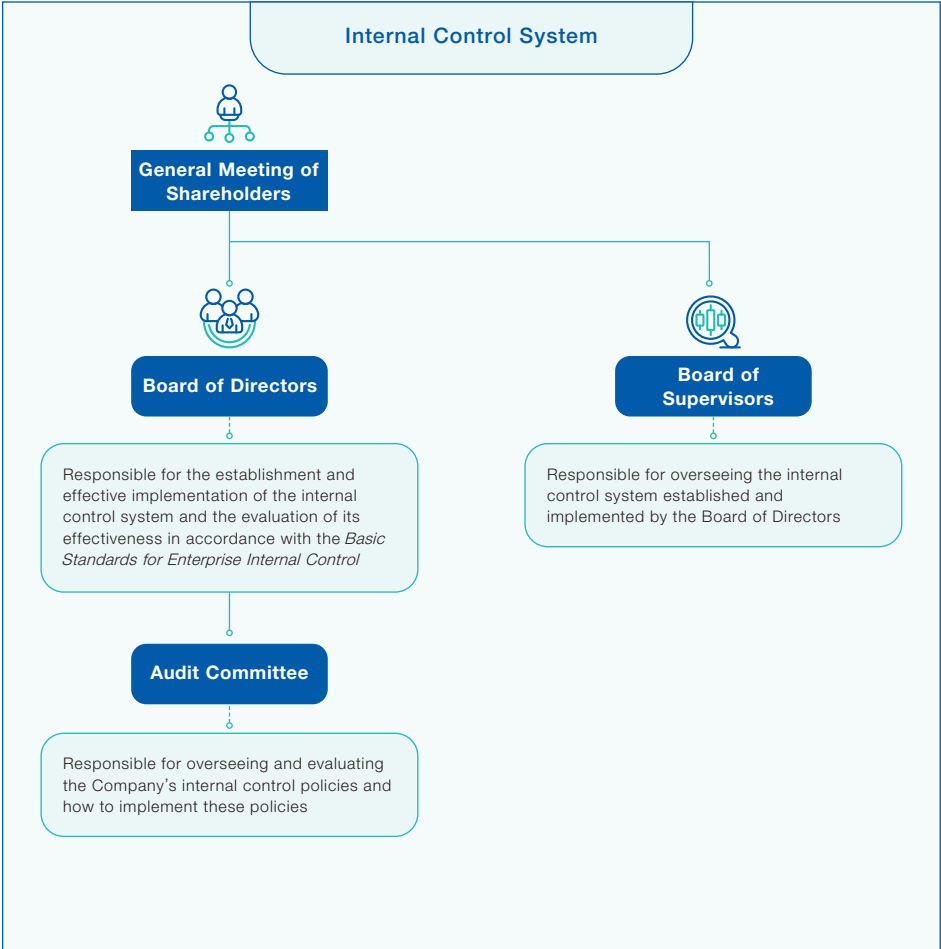
Internal Control System

TPV has developed a sound internal control system aligned with its actual operations in accordance with the *Basic Standards for Enterprise Internal Control* and supporting complementary guidelines, alongside other internal requirements. The system covers 18 business processes, effectively improving corporate governance and risk management.

Empowered by the internal control system, the Internal Audit department of the Group conducts annual training for each subsidiary to ensure the legal compliance of its operational and management practices. The department also publishes a schedule for internal control self-assessment and fully shares insights on the requirements and key issues of internal control regulations. This approach aims to continuously improve operational efficiency and drive business growth.

In March and June 2023

the internal audit department held four internal control seminars, covering **39** subsidiaries





Corporate Emergencies/ Public Crisis Management

TPV is committed to safeguarding its healthy development and corporate image through crisis management. We have implemented a procedural, institutionalized, and systematic approach to crisis management. Based on policy guidance, external environment, and media opinions, this system aims to identify and prevent brand risks and ensure compliance in production and operations. We have also established a risk warning and response mechanism to regularly assess potential risks and maintain effective internal control over all critical areas.

We continuously monitor media coverage and promptly respond to any content that may harm our brand image. TPV always adheres to the principle of rapid response and prompt action while handling brand crises. After the crisis is resolved, the public relations (PR) department will deeply analyze the event, strengthen media cooperation, and adopt legal measures to fight malicious speculation. Furthermore, we keep refining our brand strategy in alignment with the latest macro trends and market demands to bolster our positive corporate brand image.

To standardize crisis handling, we have formed a crisis emergency response team. This team follows established procedures to actively respond to various crises, take timely measures, and effectively prevent and manage crisis events.

Business Ethics and Compliance

TPV prioritizes business ethics and compliance management. We adhere to the principle of integrity in our operations and consistently strive to standardize internal management according to the highest standards. This approach ensures that the Company always operates in a compliant and stable manner.

Business Ethics Management

Business ethics is the core value of corporate governance and internal control systems. TPV strictly abides by the *Criminal Law of the People's Republic of China*, the *Company Law of the People's Republic of China*, the *Anti-unfair Competition Law of the People's Republic of China*, the *Anti-monopoly Law of the People's Republic of China*, the *Anti-money Laundering Law of the People's Republic of China* and other applicable laws and regulations in locations where it operates. We have formulated the *TPV Code of Conduct* and established a management structure. Guided by the Audit Committee under the Board of Directors, this management structure is mainly undertaken by the internal audit department of the Group. We have also implemented an independent review and supervision mechanism within the Company, in a bid to ensure daily control of business ethics risks such as anti-corruption and anti-monopoly.

Upholding the principle of fair competition, TPV is committed to delivering competitive products and services to customers and the market. We clearly define compliance requirements for the Company's agreements with competitors and distributors/retailers in the *TPV Code of Conduct*. Our goal is to avoid monopolistic practices and unfair competition, thereby ensuring a fair and just market competition environment.

Business ethics audit

Audit Strategy	The integrity and effectiveness of existing processes of the Company are assessed according to risk-oriented principles, including fraud risks.
Audit Scope	The audit encompasses the control and management of business ethics risks and integrates the examination of fraud risks and business ethics. For instance, the assessment of fraud risks is integrated into audits of sales or procurement processes. Additionally, complaints received through the complaint mechanism inform the content and focus of internal control audits.
Audit Methodology	Internal audits are conducted for high-risk business processes or departments on a global scale.

Each year, TPV conducts training on business ethics and compliance for all employees. In January 2023, the internal audit department organized business ethics training themed around anti-corruption and conflict of interest. This training covered 22 business units. Additionally, we held specialized business ethics training for the management, aiming to instill the awareness of upholding business ethics from top management to every employee.

In 2023

the coverage rate of internal audit (including global manufacturing bases and main offices) reached

100%



Anti-corruption

TPV is committed to preventing corruption, bribery, and other improper conducts, and firmly opposes all forms of frauds. We have established mechanisms for anti-corruption and business ethics management in alignment with the *TPV Code of Conduct*. Our goal is to standardize the core principles of anti-corruption, anti-money laundering, anti-fraud, anti-unfair competition, and conflict of interest. In 2023, we had 0 confirmed corruption incidents or legal actions.

The *TPV Group Policies & Guidelines on Gifts and Entertainment* prohibits top management and employees from accepting any gifts, advantages or improper benefits, directly or indirectly, from any party which has business relationship with the company in their personal capacity.

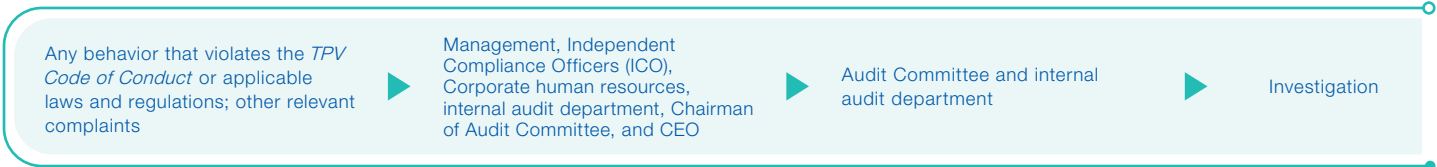
If the price of business gifts and entertainment exceeds the prescribed limit, employees are required to report the details using the *Business Entertainment/Gift Declaration Form* and obtain approval from the independent compliance officer of their business units.

In December 2023, the internal audit department educated employees on corruption risks and how to control such risks. This included promoting compliance with policies and guidelines related to the conflict of interest, gifts, and entertainment. The aim was to deepen employees' understanding of the importance of maintaining a sound internal control system and enhance their practical abilities to prevent corruption risks.

Whistleblowing and reporting mechanism

To strengthen internal and external monitoring of business ethics and compliance management, we have established open and smooth whistleblowing and reporting channels for various stakeholders including employees, suppliers, and customers. The scope of whistleblowing and reporting covers acts that infringe upon the Company's legal rights and interests such as property and reputation, public interests, or violations of national laws and regulations and internal regulations by employees, including fraud and breach of information security. To protect the privacy and safety of whistleblowers, TPV has standardized the management of whistleblower information in the *TPV Whistleblower Policy*. We ensure the confidentiality of whistleblowers' identities and strictly prohibit any form of retaliation against them.

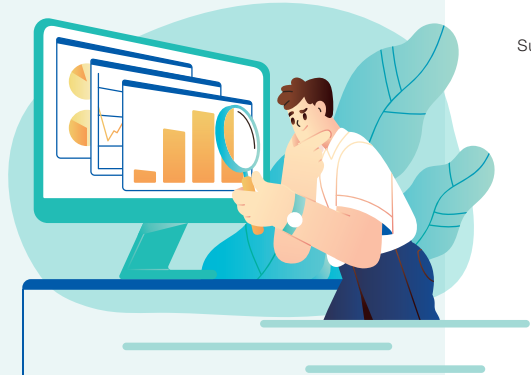
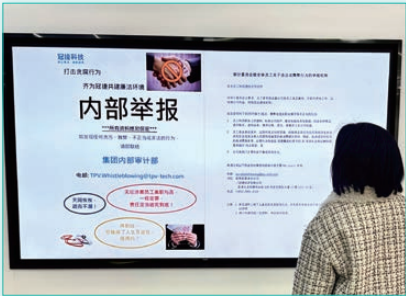
Upon receiving a report, the internal audit department of the Group will investigate the authenticity of the report through established procedures and multiple channels. Identified issues will be communicated to different areas, manufacturing bases, or departments for timely internal process improvements. The content and investigation results of major complaints will be reported to the Audit Committee, and feedback will be provided for the whistleblower upon the conclusion of the investigation.



TPV's whistleblower report-handling procedures



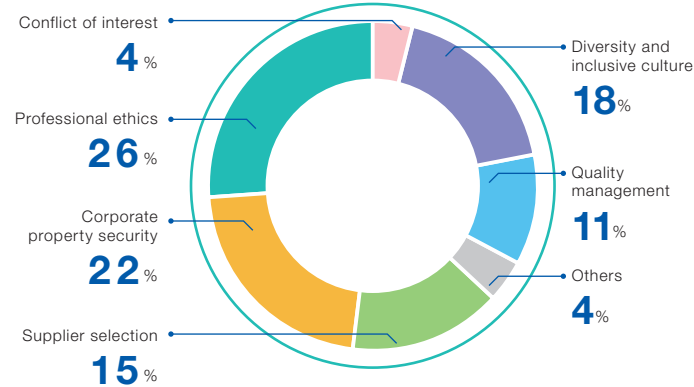
⁴⁴ Email address: tpv.whistleblowing@tpv-tech.com



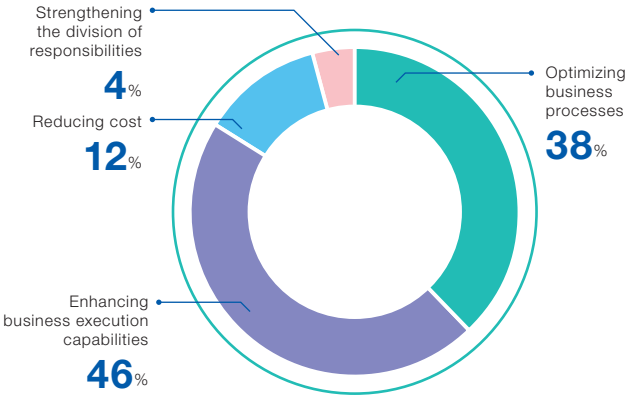
In 2023, the internal audit department received and handled complaints under seven categories, namely professional ethics, corporate property security, supplier selection, conflict of interest, quality management, diversity and inclusive culture, and others. The two most significant categories of complaints are professional ethics and corporate property security.

TPV attaches great importance to proactively and thoroughly investigating complaints. We also comprehensively review the investigation results, based on which internal processes and management are improved. In 2023, the investigation of complaints significantly contributed to TPV's improvement in various areas such as optimizing business processes, enhancing business execution capabilities, reducing costs, and strengthening the division of responsibilities.

Complaints Received by TPV in 2023



Contributions of Investigation of Complaints to TPV's Business Improvement





Supporting Local Communities

As a responsible corporate citizen, TPV Technology is committed to deeply integrating corporate value with social value. Guided by the United Nations Global Compact (UNGC) and the vision of the United Nations Sustainable Development Goals (SDGs), we persistently engage in projects related to environmental protection, public-welfare education, and job creation in domestic and overseas communities where we operate. Our efforts aim to contribute to the harmony and prosperity of local communities.

4,028,536 RMB
donated for public welfare

1,497 hours devoted in
volunteer activities

involving 649 participants



Supporting Local Communities in China

Building a sustainable society requires the joint efforts of both businesses and society. TPV consistently aligns its corporate social responsibility initiatives with national development strategies. We actively engage in environmental protection, educational development, economic construction, and social welfare activities within communities.

Environmental protection

“Building a modernization of the harmonious coexistence between man and nature” outlines the sustainable blueprint for a beautiful China. TPV actively continues to pursue the appeal of “Building a Green Homeland” proposed by Chief Executive Officer Dr. Jason Hsuan and carries out environmental protection initiatives.



Planting trees for the hope

TPV carries out tree-planting activities every year and mobilizes employee volunteers and their families to participate in environmental protection with communities. On the 45th China National Tree Planting Day in 2023, TPV organized voluntary tree-planting activities at manufacturing bases and surrounding communities in locations such as Fuqing, Xiamen, Xianyang, Wuhan, and Beijing. A total of 98 trees were planted across our manufacturing bases in China, equivalent to an annual reduction of approximately 1.76 tons of carbon dioxide emissions⁴⁵.



Tree-planting Activities in TPV Xianyang, Wuhan, and Fuqing

Educational development

Education represents the future hope for building a sustainable society. Leveraging its abundant resources and professional expertise, TPV actively participates in public-welfare education projects to empower children’s educational development and healthy growth.



One-on-one education charity initiative for impoverished children in Xinjiang

Under the strong support of Chief Executive Officer Dr. Jason Hsuan, TPV has been cooperating with the Meiji Education Foundation to carry out the one-on-one education charity initiative since 2012. This initiative aims to provide better access to education for children in impoverished areas. Over the past decade, TPV has established scholarships for local schools and provided educational display equipment. As of the end of 2023, the Xinjiang Student Aiding Program has sponsored 277 children, with over 250 employees participating in the one-on-one assistance program.



Xinjiang Student Aiding Program Under TPV’s One-on-one Education Charity Initiative

⁴⁵ The calculation of tree planting is based on the research data of the National Forestry and Grassland Administration, a tree can sequester about 18 kg of carbon each year, and this is only used as a reference to show our progress on emission reduction.



Rural revitalization

In response to the national strategy of “Rural Revitalization”, TPV has been cooperating with local governments in northwest China for employment assistance. For years, TPV has been creating decent and high-quality job opportunities for local talents.

Fujian-Ningxia paired assistance cooperation for rural revitalization

In January 2023, TPV Xiamen welcomed approximately 150 employees from Ningxia via government-chartered flights in response to the paired assistance cooperation program between Fujian and Ningxia. This initiative aimed to provide job opportunities for talents from impoverished areas.



TPV Xiamen Offers Jobs for Talents from Ningxia

Exchange across the Strait

TPV has kept a close eye on the development across the Taiwan Strait. We are committed to serving as a bridge between both sides to facilitate economic, cultural, and technological exchanges and cooperation.

TPV hosts “Joyful Baseball” summer camp

“Caring and Integration”, a public-welfare project of TPV, aims to promote exchanges between students and teachers from Taiwan and the Chinese mainland. Since 2013, TPV has organized more than ten cross-Strait exchange activities. In August 2023, TPV hosted the “Joyful Baseball” summer camp through the “Caring and Integration” project. Teachers and students from both sides of the Taiwan Strait were invited to engage in mutual learning and foster deep friendships through team-building activities and competitions.



“Joyful Baseball” Summer Camp

Belt and Road

As a leading display technology company grounded in China and connecting to the world, TPV aims to align its business footprint with the national “Belt and Road” Initiative. This enables us to better integrate into and benefit from the global value chain, thus fostering higher-quality global connectivity.



TPV Xianyang and TPV Poland – The Chang’an China-Europe Railway Express accelerates green cooperation

To better meet the demands of the European market, TPV Xianyang transports goods directly to TPV Poland through the China-Europe freight train for “TPV Optoelectronic Products”. Currently, the China-Europe Railway Express fully driven by electricity, providing a low-carbon, low-cost, and efficient trade route for the Company to ensure the security and stability of the global supply chain.

TPV Thailand – Empowering local development with new opportunities

As a strong pillar of the Company’s global manufacturing network, TPV Thailand has been expanding its presence since it commenced production in 2021. It has also encouraged a group of upstream and downstream partners in the supply chain to invest in Prachin Buri, Thailand. This has injected vitality into local employment, industrial upgrading, trade cooperation, economic prosperity, and cultural exchanges.



Social welfare

“Responsibility” is a core value embraced by TPV. Our employees actively engage in public-welfare activities in their leisure time, contributing to making the world a better place.



TPV's employees actively participate in public-welfare activities

In December 2023, TPV Fuqing and TPV Wuhan organized voluntary blood donation activities. 119 employees donated blood, contributing a total of 36,300 milliliters. TPV has organized voluntary blood donation activities for 14 consecutive years and encouraged colleagues to give back to society as much as they can.



Voluntary blood donation

Contributing to Overseas Communities

As a global company, TPV continuously supports the engagement and development of overseas communities. We systematically identify the social issues and challenges faced by the locations where we operate. We also engage in project planning and offer support to address these issues. Our public-welfare efforts span across the globe.



TPV Cares (TPV's Overseas Community Care Program)

Environmental protection

TPV's overseas employees actively participate in local environmental protection activities. Together with community residents, they safeguard the surrounding environment where they live and work. This collective action aims to protect the beautiful homeland.



Beach cleanup to save the planet

TPV cooperates with the nonprofit environmental organization “Trash Turtle”. We mobilize employee volunteers to clean beaches. During these activities, volunteers pick up at least three pieces of trash from the surrounding area to prevent waste from entering into ocean. This event aims to protect the ecological environment of the community.

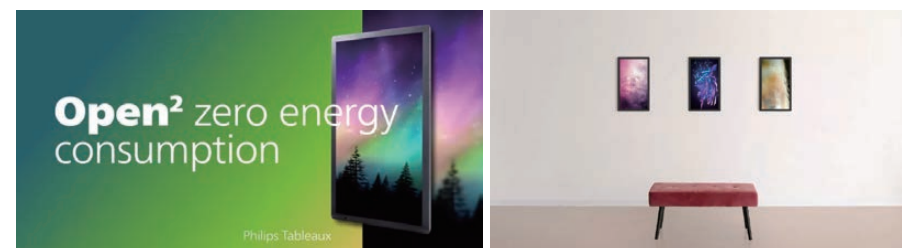


Beach cleanup with “Trash Turtle”



“MUSE” Digital Art Award

In 2023, the “MUSE” Digital Art Award, themed “The Energy for Tomorrow”, invited artists from around the world to share their digital artworks. The award's exhibition is powered by Philips Tableaux, a display using advanced color ePaper technology to allow a zero energy consumption exhibition of the digital artworks. It is the first zero-consumption digital art exhibition with Philips Tableaux displays. The carbon emissions from this event were offset, thus achieving carbon neutrality. A carbon footprint report was also published at the end of the initiative.



“MUSE” Digital Art Award



Social care

TPV pays attention to the social needs of the communities where it operates and carries out target support projects for various groups. Our efforts have contributed to the inclusive development of local communities.

Care for children with illness

TPV partnered with the charity organization "TheRockinR" to provide AOC and Philips monitors for the Medical Gaming Carts to hospitals. These donations aimed to support sick children and young people through the healing process as they undergo treatment and procedures in hospitals.



We maintain continuous communication and engagement with the communities and various social organizations in locations where we operate. Through donations of our audio-visual products and charity funds, we support the educational development and social welfare initiatives in local communities.



Donations by overseas manufacturing bases of TPV



Appendix

About This Report

As a responsible international company, TPV Technology Co., Ltd. (TPV Technology, TPV, we or the company) is committed to incorporating sustainability concepts into our corporate strategies and business models. The *TPV Technology Environmental, Social and Governance Report* (herein after “Report”) covers the same reporting period of the Financial Report⁴⁷.

We conduct stakeholder surveys in compliance with the latest domestic and international relevant sustainability reporting guidelines, regulatory requirements and with full reference to the latest sustainability development trends, and update the latest progress of the company’s sustainability based on the survey results to provide comprehensive information on TPV’s sustainability to all stakeholders. Following review and approval by the Board of Directors, the Report was officially released in April 2024. The Report is prepared in both Chinese and English. In case of any ambiguity in the understanding of the two versions, the Chinese version shall prevail. The electronic document of the Report can be read by scanning the QR code on the back cover or downloaded from the official website of TPV Technology.

Reporting Standards

This Report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards issued by the Global Sustainability Standards Board (GSSB), the Taskforce on Climate-related Financial Disclosure (TCFD) framework, the Taskforce on Nature-related Financial Disclosure (TNFD) framework, *Reference Index System for ESG Report of Central Holding Listed Companies* of State-owned Assets Supervision and Administration Commission of the State Council (SASAC) and Chapter VIII “Social Responsibility” of the *Business Guidelines of Shenzhen Stock Exchange for Self-discipline Regulation of Listed Companies*, with reference to the International Financial Reporting Sustainability Disclosure Standards (IFRS Sustainability Disclosure Standards) issued by the International Sustainability Standards Board (ISSB), the European Union’s *Corporate Sustainability Reporting Directive* (CSRD) and its accompanying guidelines, the *European Sustainability Reporting Standards* (ESRS), the *Corporate ESG Disclosure Guidelines* group standard, and the needs of the company’s stakeholders. It also includes our commitments and actions to the United Nations Sustainable Development Goals (SDGs) and presents our endeavors to practice the UN Global Compact (UNGC) Ten Principles.

⁴⁷ Please refer to TPV official website at <https://www.tpv-tech.com/report.html>.
⁴⁸ The operating entities refer to the section “Composition of the Corporate Group” in the *TPV Technology Co., Ltd 2023 Annual Report*.

Reporting Period and Scope

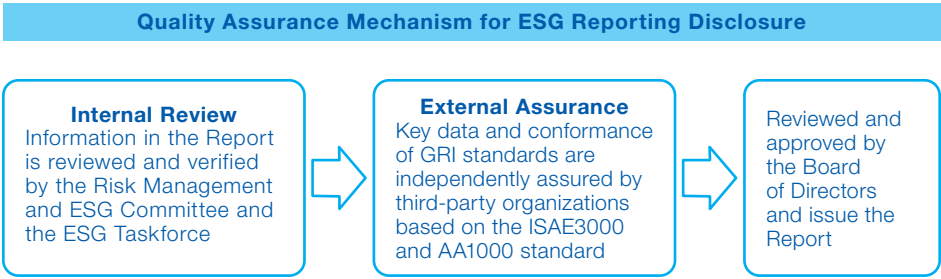
This Report presents TPV’s performance and achievements for the year ended 31 December 2023 (Reporting Period). It is the 8th Environmental, Social and Governance (ESG) Report issued by the company. Unless otherwise stated, this Report covers TPV’s 12 manufacturing bases and 5 offices worldwide as well as the assets operated and controlled by TPV globally⁴⁸.

Report Time Horizons

This Report defines the time horizons as follows: the short-term extends until 2025, the medium-term until 2030, and the long-term refers to 2030 and the period after 2030. This framework takes into account TPV ESG Roadmap to 2030 and aligns with societal macroeconomic policy and goals.

Data and Third-Party Assurance

Unless otherwise stated, the financial data in this Report are in RMB. The selected performance indicators included in this Report have been assured by a qualified third party. See *Independent Assurance Report* for details.





Forward-looking Statements

Some of the statements contained in this Report that are not historical facts are statements of future expectations, including but not limited to expected targets and action plans, climate assumptive scenarios, climate risks and financial impacts. These forward-looking statements are subject to various risks, uncertainties and other uncontrollable factors, which may cause actual results and trends to differ from the forward-looking statements. The company undertakes no obligation to update or assure any statements and unrealized performance.

The Report follows the latest sustainability reporting standards till the date of issue. Given the continuous revision and update of the related standards, there may be differences in the content and index due to the iteration of the language expressions, understandings and versions. We will align with the latest standards to keep improving the quality of information disclosure.

Feedback

Thank you for reading this Report. Please scan the QR code below and submit the *Reader Feedback Form*.

We sincerely look forward to your feedback. If you have any suggestions for improving TPV's sustainability efforts, please contact us at the following e-mail address or click "Contact Us" on the official website.



ESG Performance

Environment	Unit	2023	2022	2021
Energy				
Gasoline and diesel -stationary combustion	liter	46,106 ¹	11,407	11,353
Gasoline – mobile combustion	liter	185,496	156,839	157,590
Diesel – mobile combustion	liter	93,348	53,654	64,957
Natural gas – stationary combustion	m ³	2,670,663	2,097,274	2,009,611
LPG – stationary combustion	ton	63	56	60
Total direct energy consumption	MWh	32,844	25,537	24,753
Total electricity consumption	MWh	188,020	195,066	223,324
self-produced renewable electricity		1,224	1,137	1,324
purchased electricity – renewable technologies		10,588	6,780	206
purchased electricity – non-renewable technologies		176,208	187,149	221,794
Total indirect energy consumption	MWh	188,020	195,066	223,324
Total energy consumption ²	MWh	220,864	220,603	248,077
Intensity of total energy consumption	kWh/units	4.55	4.32	4.24
Total renewable energy consumption ³	MWh	11,812	7,917	1,530
GHG Emissions				
Scope 1 and Scope 2 – market based ⁴	ton CO ₂ e	117,915	128,536	154,409
Scope 1 ⁵		10,133	9,035	9,902
Scope 2 – market based ⁶		107,782	119,501	144,507
Scope 2 – location based ⁷	ton CO ₂ e	121,012	126,019	144,593
Intensity of Scope 1 and Scope 2 – market based	ton CO ₂ e/unit	0.0024	0.0025	0.0026
Scope 3 – Use of sold products ⁸	ton CO ₂ e/unit	7,597,951	9,764,451	13,571,773
Intensity of Scope 3 – Use of sold products	ton CO ₂ e/unit	0.16	0.19	0.23
Monitors		0.14	0.18	/
TVs		0.20	0.23	/



Environment	Unit	2023	2022	2021
Water Resource				
Total water withdrawal ⁹	ton	1,634,811	1,720,455	1,991,300
water withdrawal – groundwater source		54,278	55,514	44,917
water withdrawal – third party source		1,580,533	1,664,941	1,946,383
Total water consumption	ton	278,940	280,579	326,361
Intensity of total water consumption	ton/unit	0.0057	0.0051	0.0056
Wastewater Discharge				
Total water discharge ¹⁰	ton	1,355,871	1,439,876	1,651,723
to earth surface ¹¹		16,307	26,980	153,678
to third party		1,339,564	1,412,896	1,498,045
Wastewater pollutants	ton	466.0	259.8	439.4
Air Emissions¹²				
NO _x	ton	0.60	3.01	1.80
SO _x	ton	0.02	0.04	0.74
Particulate matter	ton	2.47	26.96	12.31
Solid Waste				
Total non-hazardous waste	ton	33,007	37,278	41,000
recyclable		28,990	32,911	38,118
non-recyclable		4,017	4,367	2,882
landfill		2,524	/	/
incineration ¹³		1,400	/	/
others		93	/	/
Total hazardous waste ¹⁴	ton	273	298	411
landfill		0	/	/
incineration		81	/	/
recycling		167	/	/
others		25	/	/
Material Consumption¹⁵				
Material consumption – Product package	ton	120,126	148,526	136,548
paper		73,230	94,619	65,862
plastic		38,406	44,017	58,968
wood		8,490	9,890	11,718

Employee		Unit	2023	2022	2021
Employment					
Total number of employees ¹⁶		person	19,987	20,552	22,734
By Gender	Male	person	12,133	12,655	13,856
	Top management		6	7	8
	Senior & junior management		1,616	1,680	1,745
	Non-management		10,511	10,968	12,103
	Percentage	%	60.70	61.58	60.95
	Female	person	7,854	7,897	8,878
	Top management		1	1	1
	Senior & junior management		678	703	713
	Non-management		7,175	7,193	8,164
	Percentage	%	39.30	38.42	39.05
By Age	Aged under 30	person	5,174	5,617	7,181
	Aged 30 – 50	person	13,260	13,505	14,218
	Aged above 50	person	1,553	1,430	1,335
By workforce type	Direct labor	person	10,824	10,819	12,407
	In-direct labor	person	9,163	9,733	10,327
By Region	Asia	person	15,177	15,958	17,569
	Europe	person	2,139	2,218	3,687
	North America	person	100	71	40
	Latin America	person	2,571	2,305	1,438
Non-employee workers ¹⁷		person	321	/	/
Compensation Ratio ¹⁸					
Annual total compensation ratio			107.7	94.4	/
Change in the annual total compensation Ratio ¹⁹			1.43	Not applicable ²⁰	/
Adequate Wages					
Coverage of adequate wage assessment		%	100	/	/
Percentage of employees paid below the applicable adequate wage benchmark		%	0	/	/



Employee		Unit	2023	2022	2021
Talent Attraction and Retention					
Hiring					
Total number of new employee hires		person	9,984	7,264	10,020
Average hiring cost		RMB	1,057	/	/
By gender	Male	person	5,593	4,635	5,597
	Female	person	4,391	2,629	4,423
By age	Aged under 30	person	6,159	4,242	5,858
	Aged 30 – 50	person	3,653	2,866	3,994
	Aged above 50	person	172	156	168
By workforce type	Direct labor	person	9,270	6,324	8,469
	In-direct labor	person	714	940	1,551
By job grade	Top management	person	0	0	0
	Senior & junior management	person	128	132	147
	Non-management	person	9,856	7,132	9,873
Employee Turnover ²¹					
Number of employee turnover		person	6,059	/	/
Total employee turnover rate		%	29.72	/	/
Voluntary employee turnover rate		%	22.09	/	/
By gender	Male	%	29.01	/	/
	Female	%	30.83	/	/
By age	Aged under 30	%	47.96	/	/
	Aged 30 – 50	%	23.36	/	/
	Aged above 50	%	20.47	/	/
By workforce type	Direct labor	%	44.10	/	/
	In-direct labor	%	13.10	/	/
By region	Asia	%	26.11	/	/
	Europe	%	20.66	/	/
	North America	%	16.73	/	/
	Latin America	%	61.93	/	/

Employee		Unit	2023	2022	2021
Training and Development					
Training Hours					
Total training hours		hour	961,576	1,006,499	1,010,104
for male			609,939	624,771	634,010
for female			351,637	381,728	376,094
on environmental issues			17,830	19,061	23,673
on energy conservation and climate actions			24,663	19,987	4,953
on preventing discrimination and human rights violations			5,238	9,032	14,411
on business ethics			76,173	33,384	27,191
on health and safety			84,559	102,923	68,293
Average Training Hours and Cost					
Average per employee		hour	48.1	49.0	44.4
By gender	Male	hour	50.3	49.4	45.8
	Female	hour	44.8	48.3	42.4
Average training cost per person ²²		RMB	446	386	395
Average Training Hours Per Employee by Topics ²³					
on environmental issues		hour	0.89	0.93	1.04
on energy conservation and climate actions		hour	1.23	0.97	0.22
on preventing discrimination and human rights violations		hour	0.26	0.44	0.63
on business ethics		hour	3.81	1.63	1.20
on health and safety		hour	4.23	5.01	3.00
Number of Trainees by Topics					
on environmental issues	number	person	14,016	15,938	/
	percentage	%	70.13	77.55	/
on energy conservation and climate actions	number	person	18,879	15,138	/
	percentage	%	94.46	73.66	/
on preventing discrimination and human rights violations	number	person	6,162	12,707	/
	percentage	%	30.83	61.83	/
on business ethics	number	person	19,894	14,773	/
	percentage	%	99.53	71.88	/
on health and safety	number	person	16,357	14,800	/
	percentage	%	81.84	72.01	/
Employee Training Number					
Total training numbers		person	19,894	18,082	/



Employee	Unit	2023	2022	2021	
Health & Safety					
Fatalities ²⁴					
Number of cases	case	0	0	0	
Number of work-related fatalities	person	0	0	0	
Lost working hours	day	0	0	0	
Rate of occurrence ²⁵	%	0	0	0	
Recordable Work-related Injuries ²⁶					
Number of cases of work-related injuries	case	54	41	79	
Total worktime lost	day	1,844	7,854	2,357	
Recordable work-related injuries frequency rate ²⁷	case/million work hours	1.35	0.99	1.74	
Human Rights and Welfare					
Percentage of employee representatives in formal joint management – worker health & safety committees	%	1.85	1.19	1.05	
Percentage of employees that are covered by formal collective agreements concerning working conditions ²⁸	%	53.78	44.72	59.84	
Percentage of employee representatives of the selected formal trade union, labor council or similar committee led by the company ²⁹	%	3.25	3.82	1.08	
Percentage ³¹ of employees that are covered by the health insurance/medical insurance ³⁰	%	97	97	95	
Parental Leave					
Total number of employees that were entitled to parental leave ³²	Male	person	815	/	/
	Female	person	735	/	/
Total number of employees that took parental leave	Male	person	678	/	/
	Female	person	563	/	/
Total number of employees that returned to work in the reporting period after parental leave ended	Male	person	628	/	/
	Female	person	484	/	/
Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work	Male	person	511	/	/
	Female	person	366	/	/
Return to work rate of employees that took parental leave ³³	Male	%	92.63	/	/
	Female	%	85.97	/	/
Retention rate of employees that took parental leave ³⁴	Male	%	93.65	/	/
	Female	%	83.21	/	/

Employee	Unit	2023		2022		2021
Diversity						
Percentage of Female Employees						
Top management	%	14.29		12.50		11.11
Senior & junior management	%	29.56		29.50		29.01
Junior management	%	31.18		/		
Non-management	%	40.57		39.61		40.28
Percentage of women in Sales management positions	%	32.64		/		/
Percentage of women in STEM-related positions ³⁵	%	23.08		/		/
Gender Pay Gap						
Unadjusted gender pay ratio ³⁶ (Female/Male)		0.67		0.75		/
Direct labor	%	Female	Male	Female	Male	/
Chinese mainland						/
1st Quartile (0-25%)		25.07	74.93	22.89	77.11	/
2nd Quartile (25-50%)		34.83	65.17	36.24	63.76	/
3rd Quartile (50-75%)		41.18	58.82	41.52	58.48	/
4th Quartile (75-100%)		50.23	49.77	51.89	48.11	/
Hong Kong, Macao and Taiwan		No direct labor		No direct labor		/
Europe						/
1st Quartile (0-25%)		38.29	61.71	35.91	64.09	/
2nd Quartile (25-50%)		50.01	49.99	49.55	50.45	/
3rd Quartile (50-75%)		63.74	36.26	69.41	30.59	/
4th Quartile (75-100%)		69.49	30.51	69.34	30.66	/
In-direct labor	%	Female	Male	Female	Male	/
Chinese mainland						/
1st Quartile (0-25%)		23.77	76.23	25.33	74.67	/
2nd Quartile (25-50%)		40.50	59.50	38.05	61.95	/
3rd Quartile (50-75%)		43.07	56.93	42.91	57.09	/
4th Quartile (75-100%)		53.85	46.15	56.36	43.64	/
Hong Kong, Macao and Taiwan						/
1st Quartile (0-25%)		19.62	80.38	19.99	80.01	/
2nd Quartile (25-50%)		20.29	79.71	18.90	81.10	/
3rd Quartile (50-75%)		25.58	74.42	28.32	71.68	/
4th Quartile (75-100%)		42.31	57.69	41.18	58.82	/



Employee	Unit	2023	2022	2021
Europe				/
1st Quartile (0-25%)		14.12 85.88	17.51 82.49	/
2nd Quartile (25-50%)		32.63 67.37	31.65 68.35	/
3rd Quartile (50-75%)		46.98 53.02	45.93 54.07	/
4th Quartile (75-100%)		56.08 43.92	54.15 45.85	/
Minority Employees ³⁷				
Percentage of ethnic minority employees	%	3.032	3.664	/
Top management	person	0	0	/
Coverage	%	0	0	/
Senior & junior management	person	20	23	/
Coverage	%	0.872	0.965	/
Non-management	person	586	730	/
Coverage	%	3.313	4.020	/
Employees with Disabilities ³⁸				
Percentage of employees with disabilities	%	0.220	0.214	/
Top management	person	0	0	/
Coverage	%	0	0	/
Senior & junior management	person	2	2	/
Coverage	%	0.087	0.084	/
Non-management	person	42	42	/
Coverage	%	0.237	0.231	/
Customer	Unit	2023	2022	2021
Own brands				
Total number of justified compliant	case	44	32	41
on the matter of product issues		38	26	37
related to customer health and safety		0	0	0
other		38	26	37
on the matter of service issues	case	6	6	4
related to customer privacy security		0	0	0
other		6	6	4
Percentage of closed complaints	%	100	100	100

Supply Chain	Unit	2023	2022	2021
Sustainable Supply Chain				
On-site audit by our own	number	140	/	/
Audit/rating by third party	number	13	/	/
Number of suppliers attending training	number	135	/	/
Percentage of buyers attending training on sustainable supply chain	%	72.28	64.34	69.00
Number of Production Suppliers ³⁹				
Asia	number	517	692	655
Europe	number	8	41	72
North America	number	19	19	21
Latin America	number	1	30	22
Number of Non-Production Suppliers				
Asia	number	1,802	2,068	3,853
Europe	number	1,097	1,190	1,184
North America	number	209	227	219
Latin America	number	793	965	865
Certification	Unit	2023 ⁴⁰	2022	2021
Number of ISO 14001	number	11	12	11
Coverage of ISO 14001	%	92	92	85
Number of ISO 27001	number	3	2	1
Coverage of ISO 27001	%	25	15	8
Number of ISO 45001	number	7	9	8
Coverage of ISO 45001	%	58	69	62
Number of ISO 50001	number	6	3	1
Coverage of ISO 50001	%	50	23	8
Number of SA8000	number	2	3	3
Coverage of SA8000	%	17	23	23
Number of RBA VAP	number	6	7	4
Coverage of RBA VAP	%	50	54	31
Charity	Unit	2023	2022	2021
Donation amount ⁴¹	RMB	4,028,536	4,296,560	1,480,700



Endnotes

- 1 There has been an increase in the consumption of stationary combustion gasoline and diesel due to the use of backup generators.
- 2 The total energy consumption is the total consumption of gasoline and diesel (stationary combustion), gasoline (mobile combustion), diesel (mobile combustion), natural gas (stationary combustion), LPG (stationary combustion) and electricity consumed by the 12 manufacturing bases, 5 main offices and operation sites, and is accounted for in accordance with the National Standard of the *People's Republic of China General Rules for Calculation of the Comprehensive Energy Consumption (GB/T 2589-2020)* and the *International Energy Agency's Energy Statistics Manual*.
- 3 Total renewable energy consumption is the total renewable energy consumption of the 12 manufacturing bases, 5 main offices and operation sites. The renewable energy mainly including self-produced renewable electricity and purchased renewable electricity.
- 4 Total GHG emissions of scope 1 and scope 2 – market based are the GHG emissions from direct energy and refrigerant consumption (Scope 1) and GHG emissions from indirect energy consumption (Scope 2 – market based) from 12 manufacturing bases, 5 main offices and operation sites. According to the *Kyoto Protocol*, the company's main GHG emissions include carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons, excluding sulfur hexafluoride and perfluorocarbons.
- 5 **Methodology:** Using the operational control approach to determine the scope of emissions, GHG emissions (Scope 1) are the GHG emissions from gasoline and diesel (stationary combustion), gasoline (mobile combustion), diesel (mobile combustion), natural gas (stationary combustion), LPG (stationary combustion) fossil fuels and the use of refrigerants consumed at 12 manufacturing bases, 5 main offices and operation sites, which consist primarily of the following GHGs: carbon dioxide, methane, nitrous oxide and HCFC-22, HCFC-123, HFC-32, R-134a, R-404a, R-410a. The accounting of GHG is based on Global Warming Potential (GWP) in the *IPCC Sixth Assessment Report ("AR6")*, the *Guidelines for the Preparation of Provincial Greenhouse Gas Inventories (Trial)*, the *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories* by the Intergovernmental Panel on Climate Change (IPCC) and the *National Standard of the People's Republic of China General Rules for Calculation of the Comprehensive Energy Consumption (GB/T 2589-2020)*.
- 6 **Methodology:** Using the operational control approach to determine the scope of accounting, GHG emissions (Scope 2 – market based) are the GHG emissions from indirect energy consumption consumed at 12 manufacturing bases, 5 main offices and operation sites, considering the offsets from unbundled energy attribute certificates in the accounting of purchased non-renewable electricity, referenced to the *Green Gas Protocol*. Emission factors for purchased electricity for plants in Chinese mainland refer to the *2011 and 2012 China Regional Grid Average CO₂ Emission Factors*, for Hong Kong, China refer to the factors published in the *CLP 2021 Sustainability Report*, and for Taiwan, China and overseas plants refer to the International Energy Agency (IEA) database.
- 7 **Methodology:** Using the operational control approach to determine the scope of accounting, GHG emissions (Scope 2 – location based) are the GHG emissions from indirect energy consumption consumed at 12 manufacturing bases, 5 main offices and operation sites, including GHG from purchased renewable and non-renewable electricity referenced to the *Greenhouse Gas Protocol*. Emission factors for purchased electricity for plants in Chinese mainland refer to the *2011 and 2012 China Regional Grid Average CO₂ Emission Factors*, for Hong Kong, China refer to the factors published in the *CLP 2021 Sustainability Report*, and for Taiwan, China and overseas plants refer to the International Energy Agency (IEA) database.
- 8 **Methodology:** GHG emissions (Scope 3, Category 11 – Use of sold product) are calculated according to the Greenhouse Gas Protocol, focusing on lifetime expected energy footprint for all monitors and TVs sold products during the reporting year. This figure is then multiplied by a published grid emissions factor of the year. The emissions factor mainly refers to the United Nations Framework Convention on Climate Change (UNFCCC) IFI TWG 2021 v3.2 Grid Factors. The energy consumption outside of the organization by the use of sold products amounts to 21,637,049 MWh.
- 9 Total water withdrawals are the total annual abstraction from 12 manufacturing bases, 5 main offices and operation sites.
- 10 All wastewater discharged by the company is fresh water.
- 11 In accordance with applicable laws and regulations, wastewater is discharged into surface after being treated by sewage treatment facilities to meet regulatory standards.
- 12 The company's production processes do not involve large-scale air emission. In 2023, some manufacturing bases excluded NO_x, SO_x, and particulate matter from main monitoring indicators in accordance with local regulatory policies.
- 13 The solid waste of the company does not involve energy recovery.
- 14 All hazardous waste of the company will be handed over to qualified third-party providers for disposal in strict accordance with local laws and regulations.
- 15 The renewable packaging materials mainly used by our company are paper and wood, while the non-renewable packaging material is plastic.
- 16 Total number of employees refers to the total number of all regular employees with employment contracts.
- 17 The scope of the data covers service providers in Chinese mainland, including janitorial cleaning, gardening, catering, security, and other services. The date based on the survey conducted at December 31st of the year.
- 18 Annual total compensation ratio = Annual total compensation of the highest-paid individual/Median annual total compensation of all employees (excluding the highest-paid individual). The scope of data refers to Chinese mainland, Hong Kong, Macao and Taiwan China and Europe.
- 19 Change in the annual total compensation ratio = Percentage increase for annual total compensation of the highest-paid individual/Median percentage increase for annual total compensation of all employees (excluding the highest-paid individual). The scope of data refers to Chinese mainland, Hong Kong, Macao and Taiwan China and Europe.
- 20 The annual total compensation of the highest-paid individual decreased in 2022.
- 21 The scope of the data does not include employees who in probation period and resigned within less than three months.
- 22 The scope of the data includes related training services provided to full-time employees.
- 23 Average training hours per employee on topics = Total training hours on topics/Total number of employees.
- 24 The data is based on TPV's 12 manufacturing bases.
- 25 Rate of fatalities = fatalities/number of regular employees.
- 26 The data is based on TPV's 12 manufacturing bases.
- 27 Recordable work-related injuries frequency rate (million work hours) = total number of work-related injury cases * 1,000,000/Total work hours. Total work hours = Annual average working days (250 days) * Daily average working hours (8 hours) * Number of full-time employees.
- 28 The agreement includes but is not limited to salary, working conditions, working hours, health and safety, training, etc.
- 29 100% of the total workforce is covered by formally-elected employee representatives.
- 30 Health insurance/medical insurance includes but is not limited to medical insurance programs initiated by local government, supported by commercial institutions, or reimbursed by the company.
- 31 Percentage of employees that are covered by the health insurance/medical insurance = number of employees covered by health or medical insurance/number of regular employees.
- 32 The number of employees entitled to parental leave is the sum of employees who have applied for "maternity leave or paternity leave" during the years 2022-2023. The number in Chinese mainland is the employees who are eligible to apply for parental leave.
- 33 Return to work rate = Total number of employees that did return to work after parental leave/Total number of employees due to return to work after taking parental leave * 100
- 34 Retention rate = Total number of employees retained 12 months after returning to work following a period of parental leave/Total number of employees returning from parental leave in the prior reporting period (s) * 100
- 35 STEM refers to Science, Technology, Engineering, and Mathematics. STEM-related positions in our company include computer programmers, web developers, engineers, etc.
- 36 This data is the unadjusted gender pay gap, regardless of management level, grade, position, function, etc., based on the ratio of male, including employees in Chinese mainland, Hong Kong, Macao, Taiwan China and Europe.
- 37 The scope of the data only refers to Chinese mainland.
- 38 The scope of the data only refers to Chinese mainland.
- 39 Including suppliers of optical materials, plastics, electronic components, and other production materials
- 40 The number of global manufacturing sites is 12 in 2023. The number of certificates is the number of manufacturing bases holding certificates among 12 manufacturing bases and the certification coverage is the percentage of certificates coverage at 12 manufacturing bases.
- 41 The Company has no donations to political or lobbying groups.



Sustainability Reporting Index

GRI-ESRS Interoperability Index

Statement of use	TPV has reported in accordance with the GRI Standards for the 2023 reporting period.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standards	Not applicable

GRI Standards	GRI Disclosures and Requirements	ESRS Disclosure and Requirements	Location/Public Document	Page
GRI 2 The organization and its reporting practices	2-1 Organizational details	See requirements of Directive 2013/34/EU	<ul style="list-style-type: none"> About TPV TPV Technology 2023 Annual Report 	6
	2-2 Entities included in the organization's sustainability reporting	ESRS 1 5.1; ESRS 2 BP-1 §5 (a) and (b) i	<ul style="list-style-type: none"> About This Report 	103
	2-3 Reporting period, frequency and contact point	ESRS 1 §73	<ul style="list-style-type: none"> About This Report 	103
	2-4 Restatements of information	ESRS 2 BP-2 §13, §14 (a) to (b)	<ul style="list-style-type: none"> About TPV 	6
	2-5 External assurance	See external assurance requirements of Directive (EU) 2022/2464	<ul style="list-style-type: none"> Independent Assurance Report About TPV 	116-117 6
GRI 2 Activities and workers	2-6 Activities, value chain and other business relationships	ESRS 2 SBM-1 §40 (a) i to (a) ii, (b) to (c), §42 (c)	<ul style="list-style-type: none"> Sustainable Supply Chain Number of Manufacturing bases is updated to 12 	71
	2-7 Employees	ESRS 2 SBM-1 §40 (a) iii; ESRS S1 S1-6 §50 (a) to (b) and (d) to (e), §51 to §52	<ul style="list-style-type: none"> ESG Performance 	105
	2-8 Workers who are not employees	ESRS S1 S1-7 §55 to §56	<ul style="list-style-type: none"> ESG Performance 	105
GRI 2 Governance	2-9 Governance structure and composition	ESRS 2 GOV-1 §21, §22 (a), §23; ESRS G1 §5 (b)	<ul style="list-style-type: none"> Foundation of Sustainability Sound Governance TPV Technology 2023 Annual Report 	15 89
	2-10 Nomination and selection of the highest governance body	This topic is not covered by the list of sustainability matters in ESRS 1 AR §16	<ul style="list-style-type: none"> Sound Governance TPV Technology 2023 Annual Report 	89-91
	2-11 Chair of the highest governance body	This topic is not covered by the list of sustainability matters in ESRS 1 AR §16	<ul style="list-style-type: none"> Sound Governance TPV Technology 2023 Annual Report 	89-90

GRI Standards	GRI Disclosures and Requirements	ESRS Disclosure and Requirements	Location/Public Document	Page
GRI 2 Governance	2-12 Role of the highest governance body in overseeing the management of impacts	ESRS 2 GOV-1 §22 (c); GOV-2 §26 (a) through (b); SBM-2 §45 (d); ESRS G1 §5 (a)	<ul style="list-style-type: none"> Foundation of Sustainability 	15
	2-13 Delegation of responsibility for managing impacts	ESRS 2 GOV-1 §22 (c) i; GOV-2 §26 (a); ESRS G1 G1-3 §18 (c)	<ul style="list-style-type: none"> Foundation of Sustainability 	15
	2-14 Role of the highest governance body in sustainability reporting	ESRS 2 GOV-5 §36; IRO-1 §53 (d)	<ul style="list-style-type: none"> Foundation of Sustainability 	15
	2-15 Conflicts of interest	This topic is not covered by the list of sustainability matters in ESRS 1 AR §16	<ul style="list-style-type: none"> Business Ethics and Compliance TPV Technology 2023 Annual Report TPV Group Code of Conduct 	96-98
	2-16 Communication of critical concerns	ESRS 2 GOV-2 §26 (a); ESRS G1 G1-1 AR 1 (a); G1-3 §18 (c)	<ul style="list-style-type: none"> Foundation of Sustainability Business Ethics and Compliance 	15 96-98
	2-17 Collective knowledge of the highest governance body	ESRS 2 GOV-1 §23	<ul style="list-style-type: none"> Foundation of Sustainability Sound Governance 	15-16 90
	2-18 Evaluation of the performance of the highest governance body	This topic is not covered by the list of sustainability matters in ESRS 1 AR §16	<ul style="list-style-type: none"> Foundation of Sustainability 	15
	2-19 Remuneration policies	ESRS 2 GOV-3 §29 (a) through (c); ESRS E1 §13	<ul style="list-style-type: none"> Foundation of Sustainability TPV Technology 2023 Annual Report 	15
	2-20 Process to determine remuneration	ESRS 2 GOV-3 §29 (e)	<ul style="list-style-type: none"> Foundation of Sustainability TPV Technology 2023 Annual Report 	15
	2-21 Annual total compensation ratio	ESRS S1 S1-16 §97 (b) to (c)	<ul style="list-style-type: none"> ESG Performance 	105
GRI 2 Strategy, policies and practices	2-22 Statement on sustainable development strategy	ESRS 2 SBM-1 §40 (g)	<ul style="list-style-type: none"> Message from Chairman Road to Sustainability 	2 10-11



GRI Standards	GRI Disclosures and Requirements	ESRS Disclosure and Requirements	Location/Public Document	Page
GRI 2 Strategy, policies and practices	2-23 Policy commitments	ESRS 2 GOV-4; MDR-P §65 (b) to (c) and (f); ESRS S1 S1-1 §19 through §21, and §AR 14; ESRS S2 S2-1 §16 through §17, §19, and §AR 16; ESRS S3 S3-1 §14, §16 through §17 and §AR 11; ESRS S4 S4-1 §15 through §17, and §AR 13; ESRS G1 G1-1 §7 and §AR 1 (b)	<ul style="list-style-type: none"> Road to Sustainability Stakeholder Engagement TPV Code of Conduct TPV Human Rights Policy 	12-14 18
	2-24 Embedding policy commitments	ESRS 2 GOV-2 §26 (b); MDR-P §65 (c); ESRS S1 S1-4 §AR 35; ESRS S2 S2-4 §AR 30; ESRS S3 S3-4 §AR 27; ESRS S4 S4-4 §AR 27; ESRS G1 G1-1 §9 and §10 (g)	<ul style="list-style-type: none"> Road to Sustainability Foundation of Sustainability Sustainable Supply Chains Human Rights & Labor Rights 	10-11 15-16 67-69 75-76
	2-25 Processes to remediate negative impacts	ESRS S1 S1-1 §20 (c); S1-3 §32 (a), (b) and (e), §AR 31; ESRS S2 S2-1 §17 (c); S2-3 §27 (a), (b) and (e), §AR 26; S2-4 §33 (c); ESRS S3 S3-1 §16 (c); S3-3 §27 (a), (b) and (e), §AR 23; S3-4 §33 (c); ESRS S4 S4-1 §16 (c); S4-3 §25 (a), (b) and (e), §AR 23; S4-4 §32 (c)	<ul style="list-style-type: none"> Business Ethics and Compliance 	97-98
	2-26 Mechanisms for seeking advice and raising concerns	ESRS S1 S1-3 §AR 32 (d); ESRS S2 S2-3 §AR 27 (d); ESRS S3 S3-3 §AR 24 (d); ESRS S4 S4-3 §AR 24 (d); ESRS G1 G1-1 §10 (a); G1-3 §18 (a)	<ul style="list-style-type: none"> Business Ethics and Compliance 	97-98
	2-27 Compliance with laws and regulations	ESRS 2 SMB-3 §48 (d); ESRS E2 E2-4 §AR 25 (b); ESRS S1 S1-17 §103 (c) to (d) and §104 (b); ESRS G1 G1-4 §24 (a)	There were no major violations	/
	2-28 Membership associations	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	<ul style="list-style-type: none"> Organization and Initiative Memberships 	4

GRI Standards	GRI Disclosures and Requirements	ESRS Disclosure and Requirements	Location/Public Document	Page
GRI 2 Stakeholder engagement	2-29 Approach to stakeholder engagement	ESRS 2 SMB-2 §45 (a) i through (a) iv; ESRS S1 S1-1 §20 (b); S1-2 §25, §27(e) and §28; ESRS S2 S2-1 §17 (b); S2-2 §20, §22(e) and §23; ESRS S3 S3-1 §16 (b); S3-2 §19, §21 (d) and §22; ESRS S4 S4-1 §16 (b); S4-2 §18, §20(d) and §21	<ul style="list-style-type: none"> Stakeholder Engagement 	18
	2-30 Collective bargaining agreements	ESRS S1 S1-8 §60 (a) and §61	<ul style="list-style-type: none"> Human Rights & Labor Rights ESG Performance 	75-76 107
GRI 3 Material Topics 2021	3-1 Process to determine material topics	ESRS 2 BP-1 §AR 1 (a); IRO-1 §53 (b) ii to (b) iv	<ul style="list-style-type: none"> Materiality Assessment 	19-22
	3-2 List of material topics	ESRS 2 SBM-3 §48 (a) and (g).	<ul style="list-style-type: none"> Materiality Assessment 	22
Material Issue: Climate & Energy				
GRI 3 Material Topics 2021	3-3 Management of material topics	ESRS E1 E1-2 §22, §25 (c) to (d); E1-3 §26; E1-4 §33 and §34 (b); E1-7 §56 (b) and §61 (c); ESRS E2 §AR 9 (b); E2-1 §12; E2-2 §16 and §19; E2-3 §20	<ul style="list-style-type: none"> Addressing Climate Change Low-carbon Operations 	26-35 36-38
	302-1 Energy consumption within an organization	ESRS E1 E1-5 §37; §38; §AR 32 (a), (c), (e) and (f)	<ul style="list-style-type: none"> ESG Performance 	104
GRI 302 Energy 2016	302-2 Energy consumption outside the organization	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	<ul style="list-style-type: none"> ESG Performance 	109
	302-3 Energy Intensity	ESRS E1 E1-5 §40 through §42	<ul style="list-style-type: none"> ESG Performance 	104
	302-4 Reduction energy consumption	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	<ul style="list-style-type: none"> Low-carbon Operations 	37
	302-5 Reductions in energy requirements of products and services	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	<ul style="list-style-type: none"> Green Product & Packaging 	41-45



GRI Standards	GRI Disclosures and Requirements	ESRS Disclosure and Requirements	Location/Public Document	Page
GRI 305 Emissions 2016	305-1 Direct (Scope 1) GHG emissions	ESRS E1 E1-4 §34 (c); E1-6 §44 (a); §46; §50; §AR 25 (b) and (c); §AR 39 (a) to (d); §AR 40; AR §43 (c) to (d)	• ESG Performance	104
	305-2 Energy Indirect (Scope 2) GHG Emissions	ESRS E1 E1-4 §34 (c); E1-6 §44 (b); §46; §49; §50; §AR 25 (b) and (c); §AR 39 (a) to (d); §AR 40; §AR 45 (a), (c), (d), and (f)	• ESG Performance	104
	305-3 Other indirect (Scope 3) GHG emissions	ESRS E1 E1-4 §34 (c); E1-6 §44 (c); §51; §AR 25 (b) and (c); §AR 39 (a) to (d); §AR 46 (a) (i) to (k)	• ESG Performance	104
	305-4 GHG emissions intensity	ESRS E1 E1-6 §53; §54; §AR 39 (c); §AR 53 (a)	• ESG Performance	104
	305-5 Reduction of GHG emissions	ESRS E1 E1-3 §29 (b); E1-4 §34 (c); §AR 25 (b) and (c); E1-7 §56	• Addressing Climate Change	35
	305-6 Emissions of ozone-depleting substances (ODS).	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	Not applicable	/
	305-7 Nitrogen oxides (NOx), sulfur oxides (SO) and other significant air emissions	ESRS E2 E2-4 §28 (a); §30 (b) and (c); §31; §AR 21; §AR 26	• ESG Performance	106
Material Issue: Green Products & Packaging				
GRI 3 Material Topics 2021	3-3 Management of material topics	ESRS E2 §AR 9 (b); E2-1 §12; E2-2 §16 and §19; E2-3 §20; ESRS E3 E3-1 §9; E3-2 §15, §17 through §18; E3-3 §20; ESRS E5 E5-1 §12; E5-2 §17; E5-3 §21	• Circular Economy	47-49
GRI 301 Materials 2016	301-1 Materials used by weight or volume	ESRS E5 E5-4 §31 (a)	• ESG Performance	106
	301-2 Recycled input materials used	ESRS E5 E5-4 §31 (c)	• Circular Economy	47-48
	301-3 Reclaimed products and their packaging materials	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	• Circular Economy	47-48

GRI Standards	GRI Disclosures and Requirements	ESRS Disclosure and Requirements	Location/Public Document	Page
GRI 303 Water and Effluents 2018	303-1 Interactions with water as a shared resource	ESRS 2 SBM-3 §48 (a); MDR-T §80 (f); ESRS E3 §8 (a); §AR 15 (a); E3-2 §15, §AR 20	• Low-carbon Operations	38
	303-2 Management of water discharge-related impacts	ESRS E2 E2-3 §24	• Low-carbon Operations	40
	303-3 Water withdrawal	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	• Low-carbon Operations • ESG Performance	36 105
	303-4 Water discharge	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	• Low-carbon Operations • ESG Performance There were no sewage discharge violations	40 105 /
	303-5 Water consumption	ESRS E3 E3-4 §28 (a), (b), (d) and (e)	• ESG Performance	105
Material topic: Circular Economy				
GRI 3 Material Topics 2021	3-3 Management of material topics	ESRS E5 §AR 7 (a); E5-1 §12; E5-2 §17; E5-3 §21	• Low-carbon Operations • Circular Economy	39-40 47-49
GRI 306 Waste 2020	306-1 Waste generation and significant waste-related impacts	ESRS 2 SBM-3 §48 (a), (c) ii and iv; ESRS E5 E5-4 §30	• Low-carbon Operations • Circular Economy	39-40 49
	306-2 Management of significant waste-related impacts	ESRS E5 E5-2 §17 and §20 (e) and (f); E5-5 §40 and §AR 33(c)	• Low-carbon Operations • Circular Economy	39-40 49
	306-3 Waste generated	ESRS E5 E5-5 §37 (a), §38 through §40	• ESG Performance	105
	306-4 Waste diverted from disposal	ESRS E5 E5-5 §37 (b), §38 and §40	• ESG Performance	105
	306-5 Waste directed to disposal	ESRS E5 E5-5 §37 (c), §38 and §40	• ESG Performance	105
Materiality: Product Quality and Safety				
GRI 3 Material Topics 2021	3-3 Management of material topics	ESRS S4 §10 (b); S4-1 §13, §16 (c); S4-2 §20; S4-4 §31; §32(a) and (b), §35, §AR 30, §AR 33(a); S4-5 §38, §41 (b) and (c)	• Product Quality & Safety • Customer Relationship Management	55-57 62-63



GRI Standards	GRI Disclosures and Requirements	ESRS Disclosure and Requirements	Location/Public Document	Page
GRI 416 Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	• Product Quality & Safety	57
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	ESRS S4 S4-4 §35	• Product Quality & Safety	57
Material Issues: Data Security and Customer Privacy Protection				
GRI 3 Material Topics 2021	3-3 Management of material topics	ESRS S4 §10 (b); S4-1 §13 and §16 (c); S4-2 §20; S4-4 §31, §32 (a) and (b), §35, §AR 30, §AR 33 (a); S4-5 §38, §41 (b) and (c)	• Data Security & Customer Privacy Protection	66
GRI 418 Customer Privacy 2016	418-1 Substantiated complaints related to invasion of customer privacy and loss of customer information	ESRS S4 S4-3 §AR 23; S4-4 §35	• Data Security & Customer Privacy Protection	66
Material issues: Human and labor rights				
GRI 3 Material Topics 2021	3-3 Management of material topics	ESRS S1 S1-1 §17; §20 (c); §24 (a) and (d); S1-2 §27; S1-4 §38; §39; §AR 40 (a); S1-5 §44; §47 (b) and (c); ESRS S2 §11 (c); S2-1 §14; §17 (c); S2-2 §22; S2-4 §32; §33 (a) and (b); §36; §AR 33; §AR 36 (a); S2-5 §39, §42 (b) and (c). ESRS S4 §10 (b); S4-1 §13; §16 (c); S4-2 §20; S4-4 §31; §32 (a) and (b); §35; §AR 30; §AR 33 (a); S4-5 §38; §41 (b) and (c)	• Sustainable Supply Chain	67-70
			• Human Rights & Labor Rights	75-76
			• Diversity, Equality and Inclusion	84
GRI 401 Employment 2016	401-1 New employee hiring rate and employee turnover rate	ESRS S1 S1-6 §50 (c)	• ESG Performance	106
	401-2 Benefits provided to full-time employees	ESRS S1 S1-11 §74; §75; §AR 75	• Human Rights & Labor Rights	75
	401-3 Parental Leave	ESRS S1 S1-15 §93	• Diversity, Equality and Inclusion	107

GRI Standards	GRI Disclosures and Requirements	ESRS Disclosure and Requirements	Location/Public Document	Page
GRI 405 Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	ESRS 2 GOV-1 §21 (d); ESRS S1 S1-6 §50 (a); S1-9 §66 (a) to (b); S1-12 §79	• ESG Performance	105
	405-2 Ratio of basic salary and remuneration of women to men	ESRS S1 S1-16 §97 and §98	• ESG Performance	107
GRI 406 Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	ESRS S1 S1-17 §97, §103 (a), §AR 103	• Diversity, Equality and Inclusion	84
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	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	• Sustainable Supply Chain	67-70
GRI 408 Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	ESRS S1 §14 (g); S1-1 §22; ESRS S2 §11 (b); S2-1 §18	• Human Rights & Labor Rights	75-76
			• Sustainable Supply Chain	67-70
GRI 409 Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	The relevant topics are covered in ESRS 1 §AR 16. Hence this GRI disclosure is covered by MDR-P, MDR-A, MDR-T, and/or as an entity-specific metric to be disclosed according to ESRS 1 §11 and pursuant to MDR-M	• Human Rights & Labor Rights	75-76
Material Topic: Business Ethics & Compliance				
GRI 3 Material Topics 2021	3-3 Management of material topics	ESRS G1 G1-1 §7; G1-3 §16 and §18 (a) and §24 (b)	• Business Ethics and Compliance	96-98
GRI 205 Anti-Corruption 2016	205-1 Operations assessed for risks related to corruption	ESRS G1 G1-3 §AR 5	• Business Ethics and Compliance	96
	205-2 Communication and training about anti-corruption policies and procedures	ESRS G1 G1-3 §20, §21 (b) and (c) and §AR 7 and 8	• Business Ethics and Compliance	96
	205-3 Confirmed incidents of corruption and actions taken	ESRS G1 G1-4 §25	• Business Ethics and Compliance	97-98



ISSB Index

Disclosure Requirements		Location	Page
S1 – General requirements for disclosure of sustainability-related financial information			
Core content	Governance	A governance body or individual responsible for overseeing sustainability-related risks and opportunities	15
		Describe management's role in assessing and managing sustainability-related risks and opportunities	15
		Sustainability-related risks and opportunities	23-26
		Business model and value chain	23-26
	Strategy	Strategy and decision-making	10-11
		Financial condition, financial performance and cash flows	19-26
		Resilience	23-26
		Processes and related policy processes for identifying, assessing, prioritizing, and monitoring sustainability-related risks	19-26
	Risk management	The process used by the entity to identify, assess, prioritize, and monitor sustainability-related opportunities	19-26
		The extent and how the entity integrates the process of identifying, assessing, prioritizing and monitoring sustainability-related risks and opportunities into the overall risk management process and influencing its overall risk management process	93-94
		Disclosure of each sustainability-related risk and opportunity that can reasonably be expected to affect the entity's prospects	15-16
	Metrics and goals	Information on the targets set by the entity to monitor progress towards the achievement of the strategic objectives, as well as any objectives required by laws and regulations	12-14
			16

Disclosure Requirements		Location	Page
S2 – Climate Disclosure			
Core content	Governance	A governance body (including a board of directors, committees, or other equivalent governance body) or individuals responsible for overseeing climate-related risks and opportunities	28
		Management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities	
		Climate-related risks and opportunities	
		Business model and value chain	
	Strategy	Strategy and decision-making	29-33
		Financial condition, financial performance and cash flows	
		Climate resilience	
		Procedures and related policies for identifying, assessing, prioritizing, and monitoring climate-related risks	
	Risk Management	The processes used by the entity to identify, assess, prioritize, and monitor climate-related opportunities, including whether and how the entity uses climate-related scenario analysis to help identify climate-related opportunity information	34
		The extent and how entities integrate processes for identifying, assessing, prioritizing and monitoring climate-related risks and opportunities into and influencing their overall risk management processes	
		Climate-related metrics	
	Metrics and goals	Industry indicators	35
		Climate-related targets	



TCFD Index

Core Elements	Recommended Disclosures	Location	Page
Governance	<p>Disclose the organization's governance of climate-related risks and opportunities</p> <p>a) Describe the Board's oversight of climate-related risks and opportunities</p> <p>b) Describe management's role in assessing and managing climate-related risks and opportunities</p>	<ul style="list-style-type: none"> Addressing Climate Change – Governance 	28
Strategy	<p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material</p> <p>a) Describe the climate-related risks and opportunities identified by the organization in the short, medium, and long term</p> <p>b) Describe the impact of climate-related risks and opportunities on your organization's businesses, strategic, and financial planning</p> <p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario</p>	<ul style="list-style-type: none"> Addressing Climate Change – Strategy 	29-33
Risk Management	<p>Disclose how the organization identifies, assesses, and manages climate-related risks</p> <p>a) Describe an organization's process for identifying and assessing climate-related risks</p> <p>b) Describe the organization's processes for managing climate-related risks</p> <p>c) Describe how the process of identifying, assessing, and managing climate-related risks is integrated into an organization's overall risk management</p>	<ul style="list-style-type: none"> Addressing Climate Change – Risk Management 	34
Metrics and Targets	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material</p> <p>a) Disclose the metrics used by organizations to assess climate-related risks and opportunities in accordance with their strategy and risk management processes</p> <p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks</p> <p>c) Describe the targets used by the organization to manage climate-related risks and opportunities, and how performance against targets</p>	<ul style="list-style-type: none"> Addressing Climate Change – Metrics & Targets 	35

TNFD Index

Core Elements	Recommended Disclosures	Location	Page
Governance	<p>Disclose organizational governance around nature-related dependencies, impacts, risks and opportunities</p> <p>A. Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities</p> <p>B. Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities</p> <p>C. Describe the organisation's human rights policies and engagement activities, and oversight by the board and management, with respect to Indigenous Peoples, Local Communities, affected and other stakeholders, in the organisation's assessment of, and response to, nature-related dependencies, impacts, risks and opportunities</p>	<ul style="list-style-type: none"> Biodiversity Protection – Governance 	50
Strategy	<p>Disclose the effects of nature-related dependencies, impacts, risks and opportunities on the organisation's business model, strategy and financial planning where such information is material</p> <p>A. Describe the nature-related dependencies, impacts, risks, and opportunities identified by the organization in the short, medium, and long term</p> <p>B. Describe the effect of nature-related dependencies, impacts, risks, and opportunities on an organization's business model, value chain, strategic and financial planning, as well as any transition plans or analysis in place</p> <p>C. Describe the resilience of an organization's strategy to nature-related risks and opportunities, taking into consideration different scenarios</p> <p>D. Disclose the location of assets and/or activities in the organization's direct operations and, where possible, upstream and downstream value chain(s) that meet the criteria for priority locations</p>	<ul style="list-style-type: none"> Biodiversity Protection – Strategy 	50-52
Risk & impact management	<p>Describe the processes used by the organisation to identify, assess, prioritise and monitor nature-related dependencies, impacts, risks and opportunities</p> <p>A. (i) Describe the organization's process for identifying, assessing, and prioritizing nature-related dependencies, impacts, risks, and opportunities in its direct operations</p> <p>A. (ii) Describe the organisation's processes for identifying, assessing and prioritising nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s)</p> <p>B. Describe an organization's process for monitoring nature-related dependencies, impacts, risks, and opportunities</p> <p>C. Describe how processes for identifying, assessing, prioritizing, and monitoring nature-related risks are integrated into and inform the organization's overall risk management process</p>	<ul style="list-style-type: none"> Biodiversity Protection – Natural Risk & Impact Management 	53
Metrics & targets	<p>Disclose metrics and targets used to assess and manage nature-related dependencies, impacts, risks and opportunities</p> <p>A. Disclose the metrics used by the organization to assess and manage significant nature-related risks and opportunities, in accordance with its strategy and risk management processes</p> <p>B. Disclose the metrics used by the organization to assess and manage dependencies and impacts on nature</p> <p>C. Describe the targets and goals used by the organisation to manage nature-related dependencies, impacts, risks and opportunities and its performance against these</p>	<ul style="list-style-type: none"> Biodiversity Protection – Metrics & Targets 	53



Independent Assurance Reports



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English Translation for Reference Only

Independent practitioner's assurance report

To the Board of Directors of TPV Technology Co., Ltd.

We have been engaged to perform a limited assurance engagement on the selected 2023 key data as defined below in the 2023 Environmental, Social and Governance Report ("ESG report") of TPV Technology Co., Ltd. (the "Company").

Selected key data

The selected key data in the Company's 2023 ESG Report that is covered by this report is as follows:

- Total renewable energy consumption (MWh)
- Total energy consumption (MWh)
- GHG emission
 - Scope 1 and Scope 2 – market based (ton CO2e)
 - Scope 1 (ton CO2e)
 - Scope 2 – market based (ton CO2e)
 - Scope 2 – location based (ton CO2e)
- Total water withdrawal (ton)
- Total number of employees (person)
- Number of cases of work-related injuries (case)
- Number of work-related fatalities (person)
- ISO 14001 (number)
- ISO 27001 (number)
- ISO 45001 (number)
- ISO 50001 (number)
- Coverage of ISO 14001 (%)
- Coverage of ISO 27001 (%)
- Coverage of ISO 45001 (%)
- Coverage of ISO 50001 (%)
- Average training hours per employee on topics
 - on energy conservation and climate actions (hour)
 - on business ethics (hour)
 - on health and safety (hour)

Our assurance was with respect to the year ended 31 December 2023 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the 2023 ESG Report.

Criteria

The criteria used by the Company to prepare the selected key data in the 2023 ESG report is set out in the footnote to the chapter of "ESG Performance" of the Company's 2023 ESG report (the "basis of reporting").

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The Board of Directors' Responsibilities

The Board of Directors of the Company is responsible for the preparation of the selected key data in the 2023 ESG report in accordance with the basis of reporting. This responsibility includes designing, implementing and maintaining internal control relevant to the preparation of the selected key data in the 2023 ESG report that is free from material misstatement, whether due to fraud or error.

Our Independence and Quality Management

We have complied with the independence and other ethical requirement of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's Responsibilities

It is our responsibility to express a conclusion on the selected key data in the 2023 ESG report based on our work.

We conducted our work in accordance with the International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information". This standard requires that we plan and perform our work to form the conclusion.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, we do not express a reasonable assurance opinion about whether the Company's 2023 selected key data in the 2023 ESG report has been prepared, in all material respects, in accordance with the basis of reporting. Our work involves assessing the risks of material misstatement of the selected key data in the 2023 ESG report whether due to fraud or error, and responding to the assessed risks. The extent of procedures selected depends on our judgment and assessment of the engagement risk. We have performed the following procedures:

- 1) Interviews with relevant departments of the Company involved in providing information for the selected key data within the ESG Report, undertaking site visits to the Headquarters of the Company, the Xiamen manufacturing base, Xianyang manufacturing base, and Thailand manufacturing base; and
- 2) Analytical procedure;
- 3) Examination, on a test basis, of documentary evidence relating to the selected key data on which we report;
- 4) Recalculation; and
- 5) Other procedures deemed necessary.



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Inherent Limitation

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the 2023 selected key data in the 2023 ESG report is not prepared, in all material respects, in accordance with the basis of reporting.

Restriction on Use

Our report has been prepared for and only for the Board of Directors of the Company and is not to be used for any other purpose. We do not assume responsibility towards or accept liability to any other parties for the content of this report.

PricewaterhouseCoopers Zhong Tian LLP

Shanghai, China

April 26, 2024



TUVNORD

verification statement No. CN-202404-CSR-02

Verification Statement of ESG Report

TÜV NORD (Hangzhou) Co., Ltd. (TÜV NORD) was commissioned by TPV Technology Co., Ltd. (TPV Technology, TPV, the Company) to undertake independent third-party assurance of the *TPV Technology 2023 Environmental, Social and Governance Report* (the "Report").

TPV Technology is responsible for collecting, analyzing, summarizing, and disclosing the information in the Report. The assurance of TÜV NORD was conducted by the agreed scope of work as specified in the engagement agreement with TPV Technology.

This statement is based on the *TPV Technology 2023 Environmental, Social and Governance Report*. The responsibility for the integrity and authenticity of the information and data in the Report remains with TPV Technology.

Assurance Scope

The certification declaration is based on the following contents:

- Economic, social and environmental indicators disclosed in the Report for the period from 1st January 2023 to 31st December 2023;
- The assurance was conducted online, and did not visit the headquarter, subsidiary and any location of the Company;
- The Report's conformity of GRI Standards and data, cases and management of ESG performance;
- Evaluate the collection, analysis, and review of the data and information of the Report;
- As the economic data has been audited by a third party, no double audit will be done in this assurance.

The assurance was conducted from March 25th to 26th, 2024.

Assurance Methodology

The assurance process includes the following activities:

- Review the document information provided by TPV Technology;
- Interview the person who collected the Report information;
- Verify the data and information by referring to related websites and media reports through a sampling method;
- In accordance with the GRI Standards "GRI 1: Foundation 2021", "GRI 2: General Disclosures 2021", "GRI 3: Material Topics 2021" to evaluate accuracy, balance, clarity, comparability, completeness, sustainability context, timeliness, and verifiability of the Report;
- Comply with the AA1000 Assurance Standard (AA1000AS V3) and the TÜV NORD's Implementation Rules for Reporting Verification.

TUVNORD

verification statement No. CN-202404-CSR-02

Assurance Conclusion

The *2023 Environmental, Social and Governance Report* prepared by TPV Technology Co., Ltd. objectively reflects the status and performance of the Company's sustainability performance in 2023. The data presented in the Report is reliable and objective, and TÜV NORD had not identified any systematic or material errors during the assurance, which indicates that the Report was prepared in accordance with the GRI Standards 2021:

- **Accuracy:** TPV Technology Co., Ltd. assess material issues "Product Quality & Safety, Climate & Energy, Human Rights & Labor Rights, Sustainable Supply Chain, Occupational Health & Safety" and other 22 material issues disclose the key performance of TPV Technology in 2023 from safety, environment, service, employees, society, and economy, and timely respond to the expectations of investors and other stakeholders; Qualitative or quantitative information is provided in sufficient detail, which demonstrates a certain accuracy;
- **Balance:** The Report discloses the number of complaints on products and services, employee turnover rate and other data, which demonstrates a certain balance;
- **Clarity:** the information in the Report is presented in a way that is easy to understand and clear through the forms of table of contents, graphs and comprehensive data tables, which demonstrates a certain clarity;
- **Comparability:** The Report discloses three-year environmental, economic and social performance data, such as GHG emissions, energy use, emissions, health and safety, human rights and welfare, sustainable supply chain, which ensure a certain completeness, timeliness and comparability;
- **Completeness:** TPV Technology Co., Ltd. has a number of manufacturing bases around the world. The Report discloses the Company's activities, events and impacts during the reporting period in various forms such as "2023 ESG Highlights", "Circular economy", "Biodiversity protection" and "Cases", which have certain completeness;
- **Sustainability context:** The Report includes "ESG Performance", "Highlight Performance", "Scenario analysis" and other forms. Data such as "GHG emissions, average energy-saving, energy-saving performances, water withdrawal" are disclosed, basically reporting the Company's impacts on the sustainability context;
- **Timeliness:** The Report includes information of the year 2023 by April 2024, and launched in April 2024 to provide timely information for readers' reference, which demonstrates good timeliness;
- **Verifiability:** The ESG department of TPV is responsible for collecting, recording, arranging and analyzing the information and process used in the preparation of the Report. The relevant departments of the sampled data during the assurance can provide traceability, and verifiable performance, which demonstrates good verifiability.

TUVNORD

verification statement No. CN-202404-CSR-02

Suggestion for Improvement

Through assurance and evaluation, we propose the following improvement suggestions on sustainability practice and management of TPV Technology:

- The Company operates a number of manufacturing bases globally. It is recommended to improve the balance and integrity of sample groups in the materiality assessment;
- All relevant departments shall retain the evidence of data collection for in-depth verification, to ensure information traceability and efficiency of the assurance process.

Special Statement

This statement excluding:

- The activity outside information disclosure;
- The position, idea, faith, object, future developing direction, and promise which stated by TPV Technology.

Statement of Independence and Competence

TÜV NORD Group is the world's leader certification authority in inspection, testing and verification, operating in more than 100 countries throughout the world and providing services which includes management systems and product certification; quality, environmental, social and ethical auditing and training; environmental; social responsibility and sustainability report assurance.

As one of the global branches of TÜV NORD Group, TÜV NORD (Hangzhou) Co., Ltd affirms its' independence from TPV Technology and confirms that there are no conflicts of interest with the organization or any of its subsidiaries and stakeholders when conducting the assurance of the Report. TÜV NORD was not involved in any manner with TPV Technology, when the latter was preparing the Report.

TÜV NORD (Hangzhou) Co., Ltd

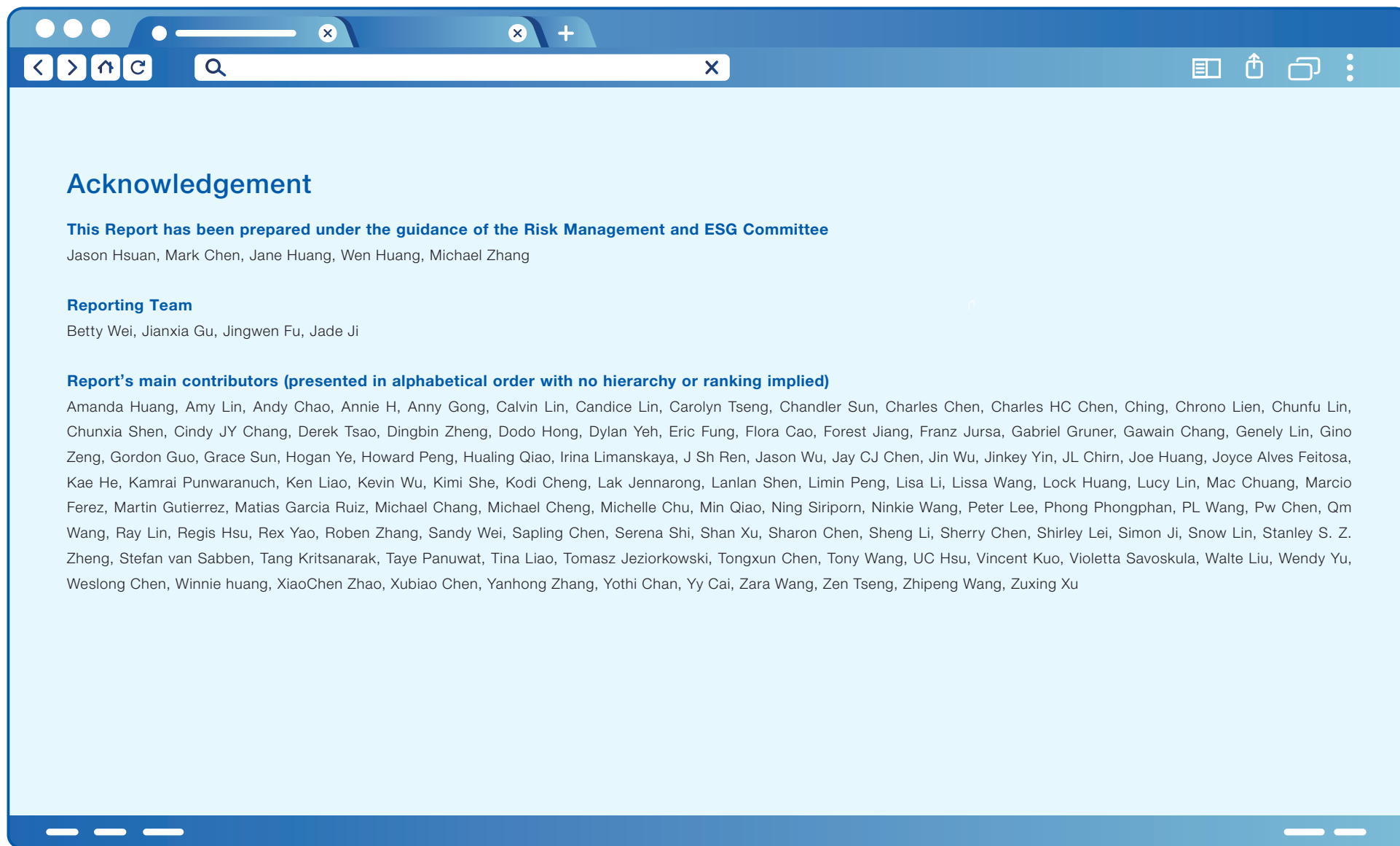
Audit team leader: Ms. Hao Lihong

Date : 16.04.2024

The Authorized person: Mr. Song, Haining

Date: 16.04.2024

Note: In case of any conflict between the English and the Chinese versions of this statement, the Chinese version shall prevail.





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