



# 2023

## Environmental, Social and Governance (ESG) Report

Tuya Inc. 涂鸦智能

Stock Code NYSE: TUYA; HKEX: 2391

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# About this Report

◆ Overview	◆ Reporting Timeframe
This report is the second environmental, social and governance report (hereinafter referred to as the "ESG" report) issued by Tuya Inc. and its subsidiaries (hereinafter referred to as the "Company", "Tuya", "Tuya Inc." or "we"), which is aimed at all stakeholders of the Company, and focuses on disclosing Tuya's management, practices and performance in terms of environmental, social and governance aspects.	Unless otherwise stated, the period covered by this report is from January 1, 2023 to December 31, 2023 (the "Reporting Period"), while certain information and activities are prior to that.
◆ Reporting Scope and Boundaries	◆ Basis of Preparation of the Report
This report defines the scope of organization based on the principle of materiality. Since the proportion of revenue from overseas companies is not material, the environmental data disclosed in this report does not include those of overseas companies. Unless otherwise specified, all substantive contents involved in this report are consistent with the disclosure scope of the Company's annual report.	This report has been mainly prepared in accordance with the Environmental, Social and Governance Reporting Guide contained in Appendix C2 of the <i>Listing Rules of The Stock Exchange of Hong Kong Limited</i> (hereinafter referred to as the "Hong Kong Stock Exchange"), and relevant provisions based on principles of materiality, quantitative and consistency.
◆ Source of Information and Assurance of Reliability	◆ Confirmation and Approval
The information and data disclosed in this report are derived from the Company's statistical data, relevant documents and internal communication files, as well as system records. The Company assures that this report does not contain any false records or misleading statements, and is responsible for the authenticity, accuracy and completeness of the contents.	Upon confirmation by the management, this report was approved by the Board of Directors (hereinafter referred to as the "Board") on March 11, 2024.
◆ Acquisition of the Report	
This report has been written in traditional Chinese and English. The electronic version is published on the "HKEX Announcements" section of the Company's official website (ir.tuya.com/financials/HKEX-Fillings/) and the website of the Hong Kong Stock Exchange (www.hkexnews.hk). In case of any inconsistency between the Chinese and English versions of this report, the English version shall prevail.	
◆ Contact Information	
We attach great importance to the opinions of stakeholders and welcome readers to email us at ir@tuya.com. Your comments will help us further improve this report and enhance our ESG performance.	

# Chairman's Statement

Build a Smart Solution Developer  
Ecosystem, Enable everything to  
be Smart

2023 is a year of great process for Tuya. As the world's first Internet of Things (IoT) cloud development platform, Tuya leverages its significant first-mover advantage in the global IoT PaaS domain to provide high-quality development, deployment, and management services for brands, OEMs, and developers worldwide to commercialize smart devices. We keep practicing our brand mission of "Smart Life, Smart Living – Enabling Everything to be Smart", and our corporate vision of "Building an IoT Developer Ecosystem". In addition, we devote ourselves to promoting the green transition of the supply chain, advancing sustainable development, and fulfilling the social responsibility.

We continuously improve our ESG governance system. To be specific, we have established a top-down, three-tier ESG governance structure that consists of the Board of Directors, the ESG Management Committee and the ESG Work Implementation Group to perform oversight and management of corporate sustainability, and have developed policies and systems to ensure clear division of duties and powers to ensure efficient and compliant corporate governance. In 2023, focusing on operation compliance, we have established full-process risk management system from risk identification to risk control, and formulated management policies, such as the *Tuya Risk Management Policy* and the *Tuya Internal Audit Policy*, thus effectively ensure that the risks in the compa-

ny's operations are controllable. Besides, we continue to promote anti-corruption and clean governance publicity, and integrity and compliance culture development to strengthen the business ethics and compliance awareness of employees.

As a leading global IoT provider, Tuya maintains its strategic positioning amidst booming industry and escalating competition. We dedicate ourselves to delivering excellent products and services, and empowering the community with scientific and technological strength. In 2023, we scored plentiful achievements in hardware and software innovation. In particular, we developed a series of hardware modules boasting favorable expansibility and high application value, and rolled out an array of intelligent platforms with energy consumption management, strategic analysis, energy conservation and efficiency improvement. Moreover, we continued to refine our software quality assurance system, and managed software development and operation quality from all aspects to offer safe and reliable software products to our customers.

Emphasizing ecological conservation, Tuya actively undertakes the social responsibility, and pursues green production while maintaining steady development. As a responsible enterprise, we reduce emissions by comply with the *Paris Agreement*, identify

climate change-related risks by reference to the TCFD (*Task Force on Climate-Related Financial Disclosures*) Recommendations, and implement countermeasures to meet the climate change challenges proactively. We encourage green and environmentally-friendly practices in energy, resource and waste management, build the *Control Procedures for Energy Conservation and Consumption Reduction*, and the *Waste Management Regulations* to facilitate rational energy utilization, control pollutant discharge strictly, and set waste management targets to minimize waste generation. Through various efforts, we integrate green conception into daily life, and help enterprise practice green life.

Recognizing the pivotal role of employees, we improve the human resource management system constantly, and foster a workplace in which employees grow together with the Company. During the reporting period, we continuously promoted training sessions, and organized training system tailored to different levels, positions, and development channels. We also updated 66 courses, and received total 32,146 participants on the online learning platform. Additionally, we introduced incentive mechanisms to promote employee development, and offered holiday benefits and team building activities to care about employees well-being. In 2023, we were awarded the "China Human Resource Sirius Award Best Employer Brand for Global Companies". In the future, we will

stay true to our mission, and join hands with our employees to move forward.

Looking ahead, Tuya will proceed along with our original aspirations and honors. We will consolidate and enhance our competencies in 5 directions, including operation compliance, work safety, ecological conservation, people orientation, and public welfare. We will promote the development of, and spread ESG concepts among employees. With an open and neutral IoT ecology, we will help enterprises and society in digital and intelligent transformation, accelerate upgrade, and pioneer a new path for green development in the IoT sector.

Chairman of Tuya Inc.

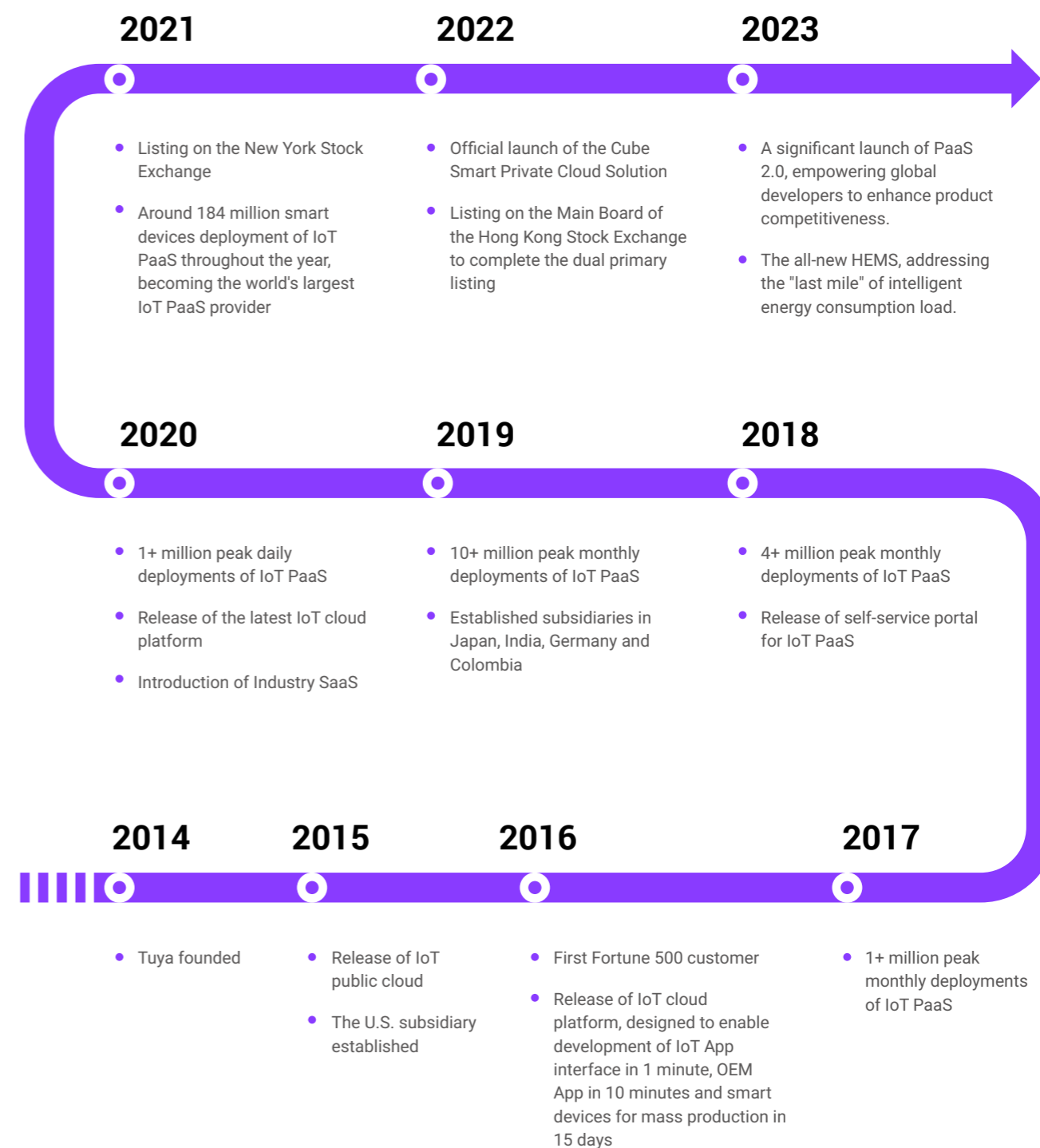
Xueji Wang

# About Tuya

Tuya (NYSE: TUYA, HKEX: 2391) is a leading technology company focused on making life smarter. Tuya offers a cloud platform that connects a range of devices via the IoT. By building interconnectivity standards, Tuya connects the smart needs of brands, OEMs, developers, and retail chains across a broad range of smart devices and industries. Tuya's solutions empower partners and customers by improving the value of their products while making consumers' lives more convenient through the application of technology. Through its growing commercial SaaS business, Tuya offers smart business solutions for a wide range of verticals. As of the end of the reporting period, Tuya IoT Developer Platform has accumulated about 993,000 registered developers from over 200 countries and regions, and provided development solutions to approximately 2,900 smart product categories, empowering about 6,100 brands customers.




## The Company's Development Milestones



The Company's Honors


2023



**Most Influential IoT Innovation List**

Fortune


2023



**Annual Outstanding Empowerment Award and Annual Outstanding Certification Award**

Matter


2023



**Best Employer Brand for Global Companies**

Moka


2022



**Winner of China Haidian High Value Patent Cultivation Competition**

High Value Patent Cultivation Competition


2022



**Best Data and AI Partner of the Year**

Microsoft Inspire China


2022



**National Top 500 Zhejiang Merchants**

National Top 500 Zhejiang Merchants Summit


2022



**King's Ark Favorite Talent Employer**

BOSS Zhipin


2022



**2022 Mobile IoT Advanced Enterprise Award**

Mobile IoT Congress 2022


2022



**Evergreen Award : Most Valued IPO Tech Company**

Sustainability Summit 2022


2022



**Best HR Program of 2022 Flag Awards**

HRFlag


2021



**Eppland Smart Technology Award**

AWE 2021


2020



**Industry Leading Brand**

New Industry Economy Summit


2019



**Global Top 25 IoT Companies List**

Forbes


2019



**Artificial Intelligence Industry Unicorn**

HURUN Research Institute


2019



**AI+IoT Technology Innovative Platform**

CES 2019


2019



**Smart Innovation Award**

AWE 2019


2018



**AI Enterprise Technology Innovation Platform**

Davos Forum


2018



**Smart Interconnected Platform Innovation**

IFA 2018


2018



**Most Growth-oriented IoT Enterprise Award**

China IoT Conference 2018


2018



**METIS Awards for Intelligent Terminals**

Mobile Smart Terminal Summit


2017



**Most Innovative Award**

36Kr


2017



**Smart Home Innovations**

CSHIA


2017



**"Zhiguang" Outstanding Cross-Border Enterprise**

IoT Lightning Conference

2017



**Best IoT Platform Solution Award in China**

OFweek

# ESG Performance Highlights

### Governance Enhancement for Long-term Development

- Established a top-down ESG governance framework of "Board of Directors - ESG Management Committee - ESG Work Implementation Group"
- 4 independent directors, accounting for **50%**
- Business ethics related policies covering 100% of employees, customers, suppliers, partners and other relevant parties **100%**
- Anti-corruption and compliance training sessions for all employees (including part-time employees and contractors)
- litigation cases of corruption, bribery, money laundering, monopoly and other violations of business ethics **0**

Female director

**1**

### Digital Intelligence Integration and Superior Quality

- Established a **cyber security compliance governance structure**, and set up the **Compliance Committee** comprising senior management such as the CFO, and CIO which holds a formal meeting every six months
- External network security certifications **6**
- Security management system certifications **4**
- Data security review reports **231**
- Product quality and safety certifications **15**
- Successfully passed the annual audit of ISO 9001 certification with the audit result of "**Zero Non-conformity Items**"

- Customer satisfaction rate of the platform technical service reached **94.7%**
- Patents obtained in total **572**

### Cooperation for Mutual Benefits

- Developer summits **5**
- Charitable donations worth approximately RMB **1.1** million

### Green Development and Low-carbon Operation

- Environmental violation incidents **0**

### Contribution to Employee Development

- A total of employees participated in the employee training **6,500** participants
- The number of ethnic minority employees **37**
- Annual physical examination and commercial insurance for all employees
- Attained the "**Best Employer Brand for Global Companies Award**"

Training coverage rate of **94.4%**

# Governance Enhancement for Long-term Development

# 01

It is well known that sound corporate governance is the cornerstone of steady and long-term development, and a healthy business ecosystem. We, as a responsible enterprise underlining corporate governance, take risk management and business ethics as our top governance priorities, building on a well-organized corporate governance framework, and improve our abilities to identify, prevent and address risks. Furthermore, we also incorporate environmental, social and governance fronts into our top-level design to safeguard the rights and interests of stakeholders, and consolidate the foundation for sustainability.

SDGs



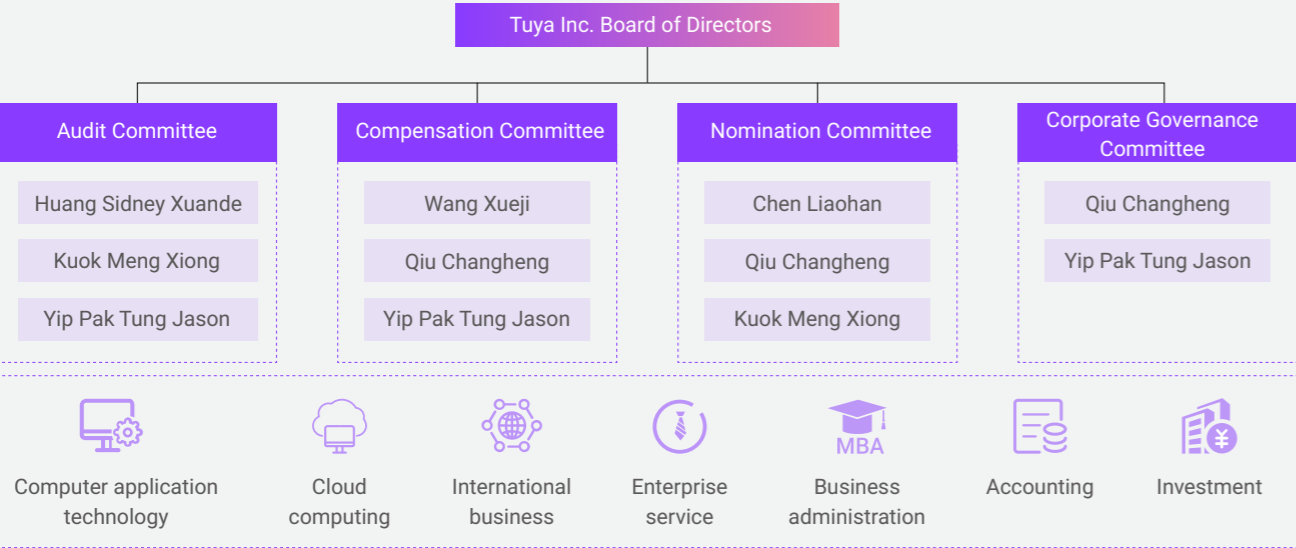
# Corporate Governance

Adhering to compliant operation, we have developed a governance framework with clear division of duties, and established effective management procedures to strengthen transparent and effective oversight and management. We have set up a standardized and orderly governance structure composed of the shareholders' general meeting, the Board and its subordinate special committees, and the management, forming a governance mechanism with clear powers and responsibilities, mutual coordination and mutual checks and balances, and ensuring efficient and compliant corporate governance.

As the highest decision-making body of the Company, the Board of Tuya has established the Audit Committee, the Compensation Committee, the Nomination Committee, and the Corporate Governance Committee. In accordance with the respective articles of these committees, the *Standards for Business Behaviors and Ethics* and other internal documents, these committees oversee the management of affairs of the Company from different perspectives to ensure stable operation of the Company.

Attaching importance to the diversity and professionalism of the Board, we have comprehensively considered multiple aspects of directors such as background, industry experience, gender, age, and language. To present diverse views and horizons in decision-making and strategy design, we have assessed the abilities, skills and experience of directors in their appointment, including board management skills, professional abilities, as well as finance and risk management experience. For example, Mr. Huang Sidney Xuande, an independent non-executive director of the Board, has over 19 years of finance and risk management experience in the technology and internet industry, and has extensive expertise in business operation and risk management.

The current Board members have extensive industry experience, and professional capabilities in information and technology science, cloud computing and computer application technology, international business and economics, business administration, law, finance, accounting, investment, engineering, physics, history, and chemistry, etc. As of the end of the reporting period, the Board of Tuya is composed of 8 directors, including 4 independent directors, accounting for 50%, and 1 female director. Besides, we supervise and assess our diversity policy from time to time to maintain its effectiveness.

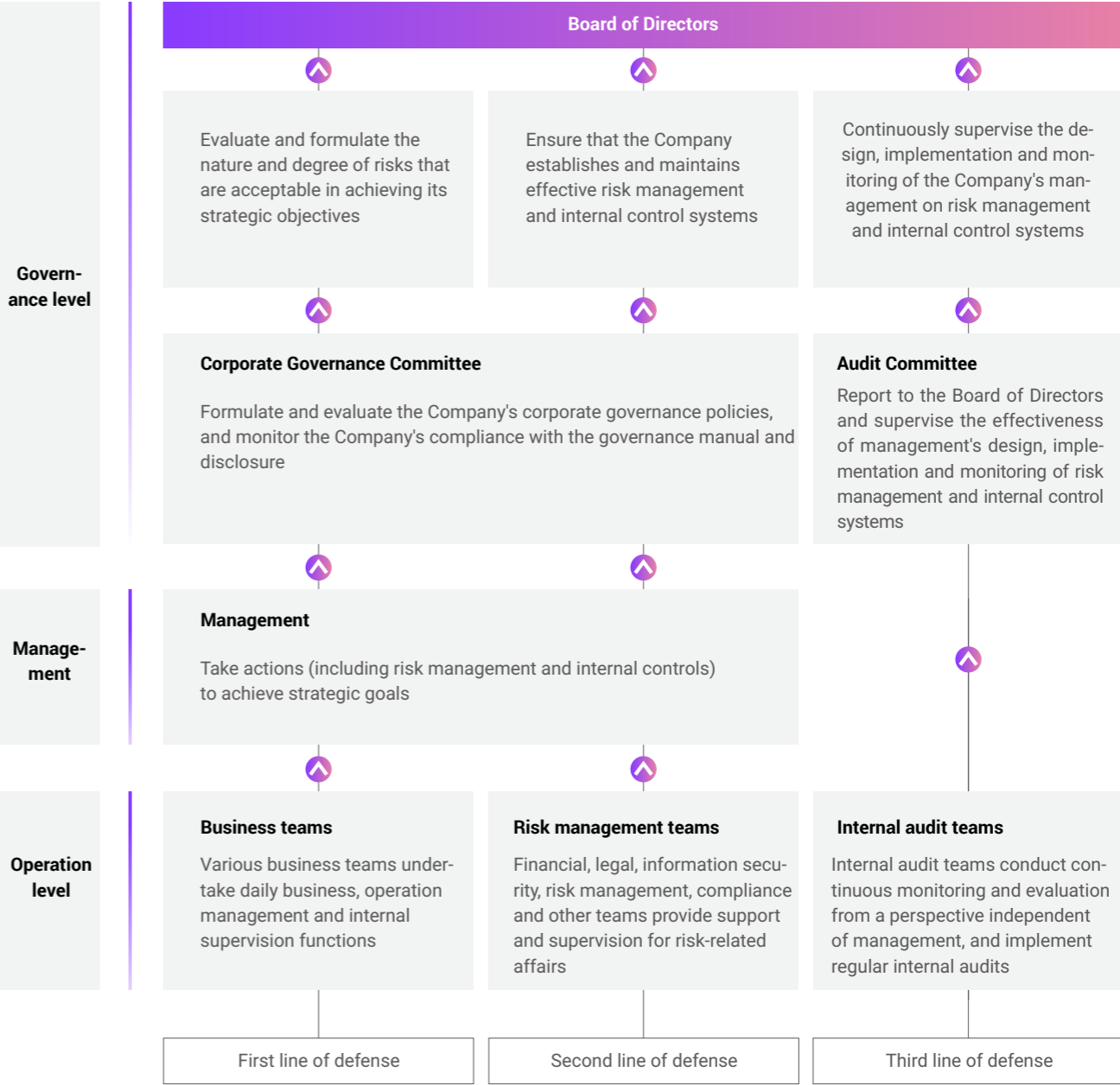


Tuya's Skill Matrix of Directors

For details over meetings of the Board, the shareholders' general meeting, and special committees, please refer to our annual report. The convening and voting procedures of all meetings or resolutions were in compliance with the relevant provisions of the laws and regulations, the Company's articles of association, and the rules of procedure. All voting results were legal and valid, providing a solid foundation for the Company's standardized operation.

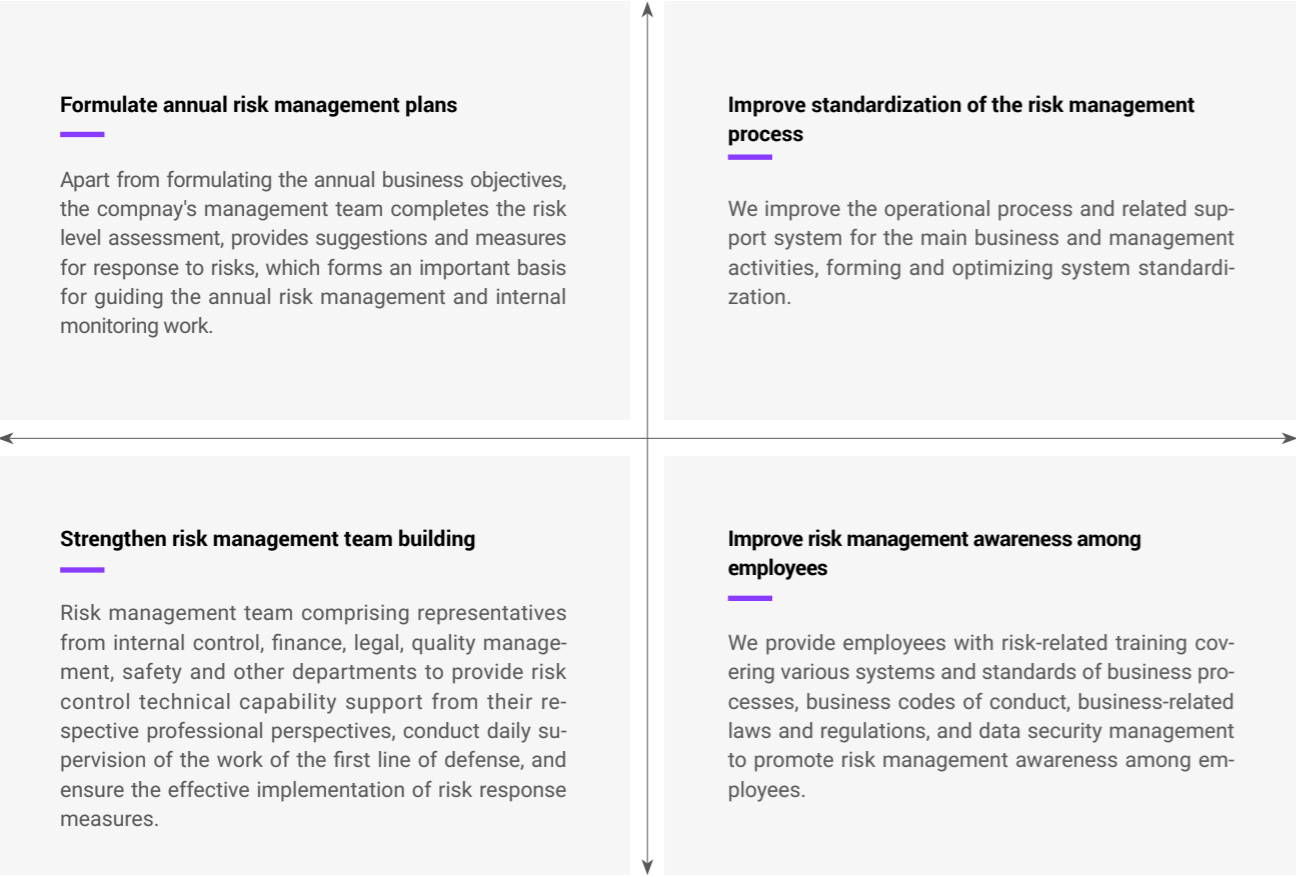
# Risk Management

Risk management plays a pivotal role for steady operations. With reference to the *Corporate Governance Code* of the Hong Kong Stock Exchange, the *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and the *Sarbanes-Oxley Act of 2002* ("SOX" Act), we have formulated management policies such as the *Tuya Risk Management Policy* and the *Tuya Internal Audit Policy*, and built a well-organized risk management structure.



Tuya's Risk Management Structure

We have formed a full-process risk management system covering identification, prevention, assessment, response, monitoring and rectification of risks to effectively control risks during the Company's operations. In addition, we have engaged third-party advisors to assist us in continuously improving our risk management, internal control and operational systems to maintain a suitable and effective risk management system.



2023 Tuya's Matrix of Risk Management Practices

Under the stable risk management system, we have identified, assessed and analyzed internal and external risks in strategy, operation, finance, information technology, and compliance. Moreover, we have actively launched internal and external audits in mulitple times and from multiple dimensions to intensify our risk oversight and management.

In 2023, our internal control SOX audit teams carried out procedures to identify risks in 12 processes including corporate level, sales accounts, procurement payment processes, devised internal control procedures for each risk, and verified effectiveness of each procedure. Up to now, there have been no major internal control failures. In addition, we employed third-party accounting firms to audit our annual financial statement and finance-related internal control risks, and propose audit opinions.

# Business Ethics

Upholding compliant operations, we actively carry out anti-bribery and anti-corruption work and to foster an integrity-emphasized corporate culture. We strictly adhere to the Anti-Money Laundering Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China, the Interim Provisions on the Prohibition of Commercial Bribery, and other relevant national laws and regulations, as well as the laws and regulations of the respective operating locations. we have established a well-structured system of business ethics, abode by rules of business ethics, and worked under an effective and transparent corporate governance framework to build the sustainable business landscape.

We have continued to develop more effective regulations and established a system of business ethics consisting of internal policies such as the *Employee Business Code of Conduct*, the *Integrity Management Standards*, and the *Tuya Anti-bribery and Anti-corruption Compliance Policy*, covering anti-corruption, anti-monopoly, anti-extortion, anti-money laundering, anti-discrimination, conflict of interest and independence, whistle-blowing, insider trading, information protection, and fair trade requirements.

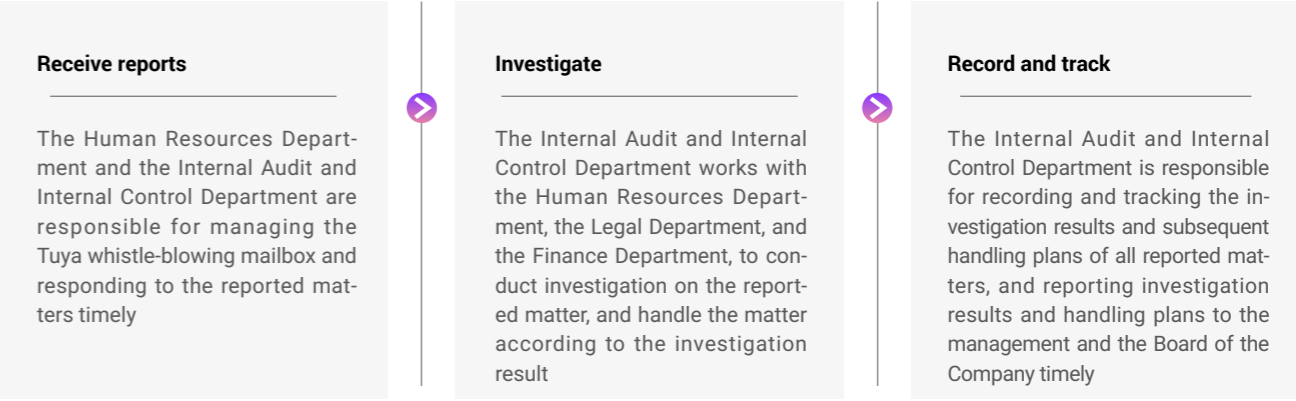
Prioritizing the management of business ethics in corporate governance, the Company has focused its efforts on building an all-rounded, multi-dimensional and anti-corruption management system. We have specified punishments for violation of anti-corruption provisions in the *Basic Human Resources Policy of Tuya*, to further guide and restrain the behaviors of employees. Besides, we have presented the requirements of business ethics to our suppliers, and asked them to sign the Integrity Commitments. At present, all our core suppliers have signed the commitments.

## Training of Business Ethics

Highlighting integrity culture development, we have promoted anti-corruption and integrity publicity constantly to enhance the business ethics and compliance awareness of employees. We have provided compulsory training courses regarding anti-corruption, compliance and anti-money laundering to all employees, and stipulated anti-corruption and compliance requirements in service contracts signed with part-time employees and contractors to improve the awareness of integrity among all employees. Also, we have provided anti-corruption and compliance training sessions for all directors to raise their professional skills and integrity awareness, and implement integrity and compliance culture. During the reporting period, there were no litigation cases of corruption, bribery, money laundering, monopoly and other violations of business ethics against the Company or its employees.

## Whistle-blowing and Investigation

Tuya has formulated smooth whistle-blowing and complaining channels, and taken effective measures to safeguard the rights and interests of whistle-blowers. We have outlined regulations on protection of whistle-blowers, and clarified whistle-blowing and investigation steps and response measures in the *Employee Business Code of Conduct* and the *Basic Human Resources Policy of Tuya*. Tuya encourages stakeholders to report major malpractices such as fraud, corruption, and bribery within and beyond the Company. We established the whistle-blowing email integrity@tuyta.com and make it available to the public, allowing easy access to reporting violations and supervising the Company.



Percentage of core suppliers signed the Integrity Commitments

100%

# ESG Governance

Tuya recognizes that a well-established ESG governance system is the internal foundation to fulfill the Company's external environmental and social responsibilities. Tuya regards sustainable development as the top priority in daily operations and strategic planning, the Company has refined ESG top-level design, facilitated communication with stakeholders, and promoted synergetic development of upstream and downstream enterprises in the value chain to discharge the social responsibility.

## Statement from the Board

According to the Company's development strategic plan, operational conditions and communication results with stakeholders, the Board of Tuya regularly identifies ESG risks and opportunities, oversees ESG policies, management, performance and goal implementation progress, and reviews and approves ESG information disclosures.



### Daily Work

The Board assumes the ultimate responsibility for ESG management and information disclosure, and participates in advancing ESG work. The ESG Management Committee is responsible for proposing suggestions on ESG strategies, and identifying major ESG risks and opportunities. The ESG Work Implementation Group is responsible for implementing daily ESG tasks, coordinating resources among departments, and promoting continuous improvement of ESG performance.



### Risk Management

As Tuya emphasizes the possible significant impacts of ESG risks and opportunities, the Board is tasked with overseeing the identification and assessment of ESG risks and opportunities to ensure ESG risks are fully considered, as well as developing response measures and management objectives to put all major sustainable risks under control effectively.



### Tracking of ESG Goals

The Company has set business-related ESG goals. To achieve these goals, the Board regularly review and track goal progress, collect performance data, and make follow-up adjustments timely based on goal progress.



### Communication with Stakeholders

Tuya fully considers the concerns of stakeholders. The Board is charged with engaging in the assessment, prioritization and case study of material ESG issues, and devising effective management strategies for material sustainability risks and issues identified to meet the expectations of stakeholders.

Governance Enhancement for Long-term Development

Digital Intelligence Integration and Superior Quality

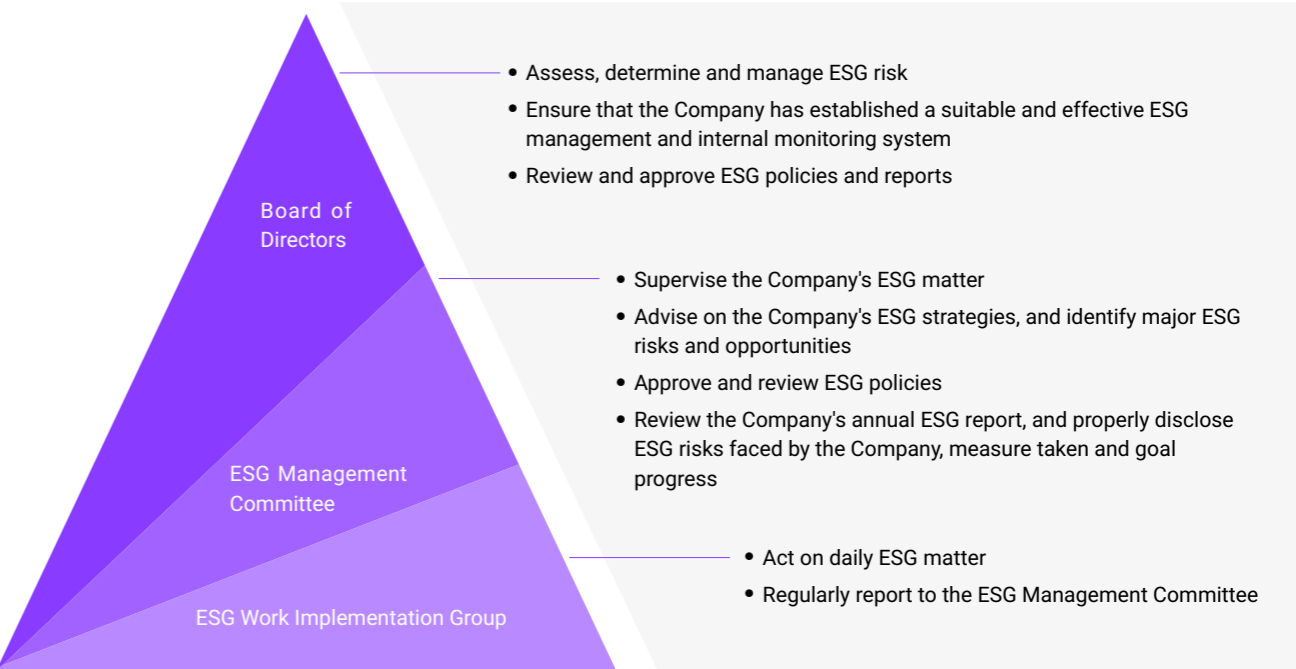
Cooperation for Mutual Benefits

Green Development and Low-carbon Operations

Contribution to Employee Development

# ESG Management Framework







Tuya has continued to upgrade its top-down ESG management framework and mechanism for better sustainability oversight and management. The Board, as the top ESG decision maker, undertakes the ultimate responsibility for our ESG job. The ESG Management Committee under the Board is responsible for overseeing our ESG efforts, and reviewing our ESG reports.



# Communication with Stakeholders

Tuya has been actively communicating with various stakeholders, constantly engage with stakeholders over their concerns of our management through regular lines of communication, and consider their demands and suggestions in our daily operations and decision making process to make more effective management decisions.

We have identified our major stakeholders including governments and regulators, shareholders and investors, downstream end users, employees, suppliers and partners, as well as social organizations and media based on the breadth of our business and the nature of our output. During the reporting period, we have engaged with internal and external stakeholders on multiple occasions through online and offline meetings, opinion surveys, business visits and presentations to enhance stakeholders' understanding and recognition of the Company.

Major stakeholders	Issues of concern	Communication channels
 Regulatory and competent authorities	<ul style="list-style-type: none"><li>Compliant operations</li><li>Business ethics</li><li>Labor practices</li><li>Intellectual property rights protection</li><li>Environmental management</li><li>Climate change and greenhouse gas emissions</li><li>Waste management</li></ul>	<ul style="list-style-type: none"><li>Press releases/press announcements</li><li>Regular communication</li><li>Policy consultation</li><li>Information disclosure</li></ul>
 Investors	<ul style="list-style-type: none"><li>Business model and products and services</li><li>Corporate governance and compliance information disclosure</li><li>Employees, organization building and corporate culture</li><li>Information security and privacy protection</li><li>Business ethics</li></ul>	<ul style="list-style-type: none"><li>Telephone, communication software, investor relations email</li><li>Capital market rating questionnaires</li><li>The Company's official website, new media platform</li><li>Exchange network infrastructure platform</li><li>Quarterly, semi-annual and annual results conference calls</li><li>Shareholders' general meetings, roadshows, analyst meetings, on-site surveys and exchange seminars</li></ul>
 Customers	<ul style="list-style-type: none"><li>Information security and privacy protection</li><li>Customer services</li><li>Product safety and quality</li><li>Environmental impact of products and services</li><li>Responsible marketing</li></ul>	<ul style="list-style-type: none"><li>"Iron Triangle" model for customer service and support</li><li>Customer service channels</li><li>Site visit</li><li>Daily communication by means of telephone, email and communication software</li><li>Exhibitions and business events</li></ul>
 Employees	<ul style="list-style-type: none"><li>Employment</li><li>Diversity and inclusion</li><li>Labor practices</li><li>Employee occupational health and safety</li><li>Employee training and development</li></ul>	<ul style="list-style-type: none"><li>HR mailbox and internal communication software (HR service desk)</li><li>Tuya culture column (such as "You Yi Shuo Yi", "Tuya Biweekly", etc.)</li><li>Employee communication meeting</li><li>"One-to-one" communication between TL and employees, internal team meetings</li><li>Team building activities</li><li>Employee training and online courses</li><li>Physical examination and commercial insurance for employees</li></ul>
 Suppliers	<ul style="list-style-type: none"><li>Business ethics</li><li>Supply chain management</li></ul>	<ul style="list-style-type: none"><li>On-site surveys and evaluation</li><li>A series of complete processes including supplier assessment</li><li>Day to day communication and meetings</li></ul>
 The community, downstream end users and the public	<ul style="list-style-type: none"><li>Community investment and development</li><li>Promotion of industry development</li><li>Product safety and quality</li><li>Environmental impact of products and services</li><li>Resource utilization</li></ul>	<ul style="list-style-type: none"><li>Press releases/press announcements</li><li>Charity events</li><li>Cooperation with peers</li><li>Market cooperation</li><li>Information disclosure</li><li>Social media</li><li>The Company's official website, new media platform</li></ul>

# ESG Material Issues

Following the guidelines of Hong Kong Stock Exchange, referring to the best practices of leading peers, and considering top ESG concerns of the capital market, and internal and external stakeholders, we have worked out the material issue matrix to help us identify and manage issues related to risks and opportunities, and effectively respond to the expectations of stakeholders.



In 2023, we analyzed and updated our material issue matrix according to our strategic development tendency and current development situation.



# Digital Intelligence Integration and Superior Quality

## 02

As scientific and technological advancement changes life, and digital and intelligent tendency rules the future, Tuya firmly grasps the development trend with digital intelligence, takes continuous innovation as the drive and quality assurance as the basic responsibility. Tuya is dedicated to providing customers with the best possible digital and intelligent experience, and creating more values for the industry. Building on reliable security defense lines, we work to improve data security and privacy protection comprehensively and assist in building a more robust and stable cyber ecosystem. Embracing a more open, inclusive and sustainable development insight, Tuya and its upstream and downstream partners make concentrated efforts to help different sectors move towards digital, intelligent, and low-carbon transition.



### SDGs



# Data Security and Privacy Protection

As an AI+IoT technology-based Company, Tuya places security as its top concern. We stay committed to safeguarding data security, enhancing cloud security capability, and maintaining a well-established physical protection and cloud control system to ensure our credibility in security assurance. Taking information security as one of the important development strategy consistently, we make every efforts to safeguard the information security of Tuya itself and its users, and firmly contribute to a safe and stable industry ecosystem.

## Data Security

To achieve data security goals, the Company has fostered an all-around and reliable data security protection net in terms of organizational structure, policy framework, and management measures. To this end, we have set up professional and effective information security management teams, adopted secure protection technologies, and internal and external security audits, thus forming a normalized data security management mechanism. Besides, we continued to strengthen the awareness of data security risk prevention, and maintained the steady and compliant operation of our security control system to effectively avoid significant impact of cyber threats on Tuya and its customers.

### Management Compliance of Data Security

We strictly abide by the *Cybersecurity Law of the People's Republic of China*, the EU's *General Data Protection Regulation* (GDPR), as well as the requirements of laws and regulations in the U.S. and other countries where we operate, to ensure the security, confidentiality and completeness of our own and users' data. Moreover, we have introduced in-house information security management rules and policies, such as *the Internal Audit Management Policy*, the *Application Security Management Policy*, and the *Data Security Management Policy* to guide data security management.

During the reporting period, we refined our data security management requirements, and updated management documents to further standardize data security protection. To be specific, we updated data leakage prevention requirements, added punishment mechanisms, and included data security protection related work performance in the performance assessment of

employees in the *Information Security Manual for Employees*. We specified more strict provisions on data storage, use and destruction in the *Data Security Management Policy*. We updated requirements for data grading and classification of C-end users, and those for HiTrust security in the *Management Regulations on Information Classification and Grading*, and the *Access Control Policy* respectively.

Tuya is committed to providing customers with IoT access services that are consistent, reliable, safe, and comply with regulatory requirements to safeguard data availability, confidentiality, and completeness for our customers and users. We have developed proactive security compliance strategies, and taken more security protection measures to ensure our products and services meet various security and compliance standards.

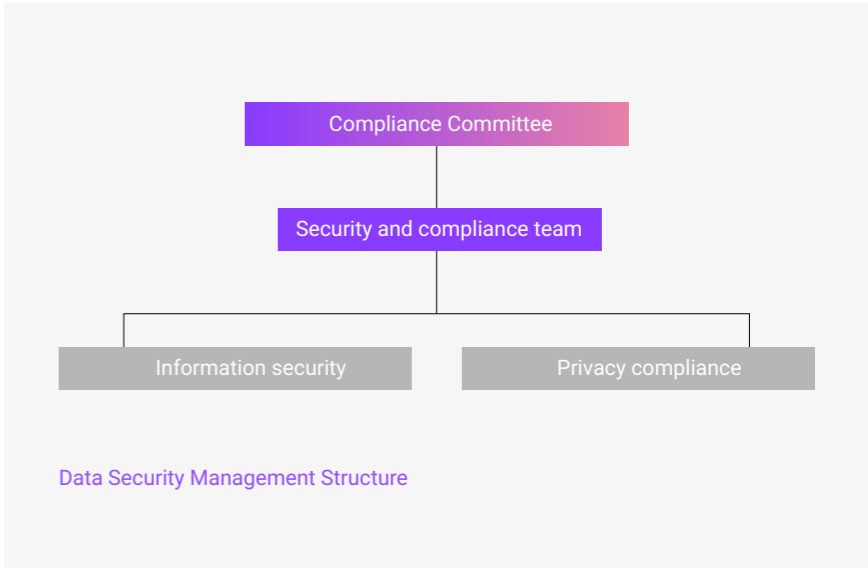


### Tuya's Commitment to Cyber Security

The professional technology experience of attack protection of Tuya's security team and world-renowned security service vendors provide cloud platform security operation and maintenance and operation services to effectively protect the safe operation of Tuya Cloud and ensure the security of customer and user privacy and data.



We have set up the Compliance Committee as the top body in our data security management framework to provide the Company and its stakeholders with guidance and support on information compliance. This committee is chaired by our key founder, and consists of CFO, CIO, CISO and other senior executives to oversee our cyber security and compliance strategies. It holds a formal meeting every six months to discuss the fulfillment of security and compliance goals and the formulation of new main goals for the next stage, and to review, assess and summarize information security and compliance efforts.



Data Security Management

We have adopted both management and technical means for holistic and systematic development of our data security system to ensure data security in all stages throughout the data life cycle.

**Data collection**

- Adhering to the basic principles of data protection, Tuya collects data under the premise of protecting personal privacy rights. Customers' authorization or users' consent to data collection is our main legal basis. Data is collected while protecting users' or customers' right to know and under the necessary principle of the services.
- We adhere to the principle of minimizing data collection. During the design stage, the compliance analysis team conducts risk and compliance assessment on sensitive data to ensure legal compliance of data collection.

**Data storage**

- Tuya Cloud provides different data storage services for different business scenarios, and uses AES256 to encrypt and store customer or user data. Sensitive data is desensitized as necessary.
- We select different local data service data centers in various operating locations around the world, and provide corresponding data services according to the regions where users are located, ensuring high reliability and high availability of data and services at the physical level.

**Data processing**

- Tuya strictly implements data classification and grading to clarify the scope of data assets, and distinguishes personal information, platform information and data and enterprise internal data according to the *Tuya Information Classification, Grading and Management Policy*, imposing corresponding security requirements and treatments according to different data types and levels.
- We strictly prevent and control data access rights and leakage risks through data access control, data filtering, data auditing, display desensitization, and personal information pseudonymization measures.

**Data retention**

- Tuya adhere to the principle of minimizing data retention period. The personal information retention period is the shortest time necessary to achieve the purpose. If the retention period is exceeded, we shall delete or anonymize the user data at the request of customers, and return such data to the customers safely.
- Customers have the rights to decide on data retention strategy and inform Tuya in a timely manner that such data is for service purpose. When customers request to delete the data or have the data returned, we shall follow such clear instruction.

**Data transmission**

- We use the world's top encryption algorithm to ensure the communication and transmission of data between terminals, including between devices and cloud, between App and cloud, and between devices.
- The data transmission process in Tuya's solutions undergoes strict integrity verification and communication certificate verification. For special contents including passwords, they are transmitted using irreversible encryption or desensitization technologies.

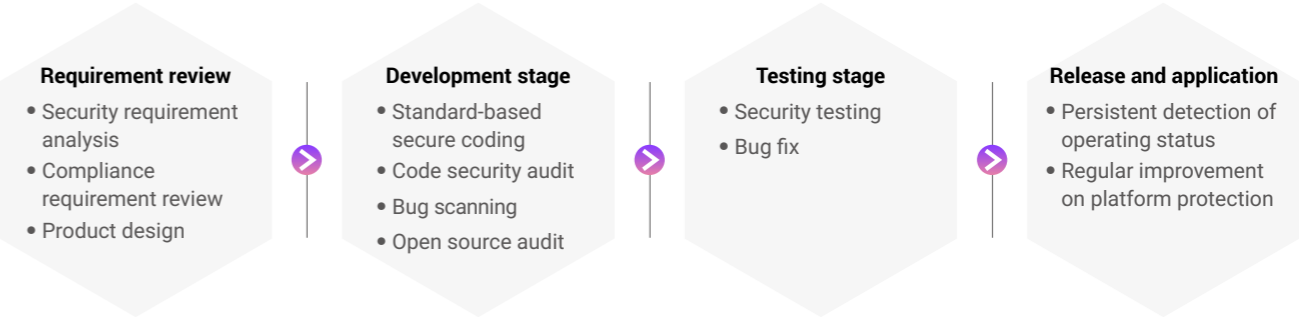
Management Measures in the Full Data Life Cycle

Security System Development

At the development stage, Tuya develops services and products for cloud platforms, Apps and smart devices by security development life cycle methods to integrate information security into the entire software development life cycle covering system review, development, testing, release, and application. During the reporting period, we introduced a security platform at the requirement analysis stage, and identified potential security risks timely. We took necessary security control measures at the design review stage, and addressed crucial issues at key project process nodes. We prepared 231 security review reports, a year-on-year increase of 89.3%. We applied the CI/CD (continuous integration, and continuous delivery/continuous deployment) process at the testing stage, allowing automatic security scanning and testing.

We prepared security review reports

231



Security Management at Different Stages

In terms of cloud platforms, Tuya integrates world-renowned service providers with advanced technologies, such as AWS, Microsoft Azure, and Tencent Cloud, to jointly build an independent cloud security management model covering data, access control and cloud service security, which provides users or customers with safe, stable, continuous and reliable physical protection infrastructure.

**Data security**

Security management of customers' business data in the cloud computing environment, including data collection and identification, classification and grading, access and encryption, as well as privacy compliance

**Access control management**

Management of access to resources and data, including user management, access management, and identity verification

**Cloud service security**

Security management of business-related application systems in the cloud computing environment, including the design, development, deployment, configuration and use of applications and service interfaces

Security Management of Cloud Platform Environment

With its sophisticated cyber security protection architecture, Tuya Cloud is able to finely safeguard networks, machines, applications and code levels in a fine-grained manner. Its functions include WAF (Web Application Firewall), RASP (Runtime Application Self-protection), CNSPs (Cloud-native Security Platform), HIDS (Host-based Intrusion Detection System), HoneyPot, SIEM (Security Information and Event Management), and multiple protection mechanisms for a great number of business security applications and modules to identify and respond to cyber threats in the technical architecture at different levels and dimensions.



### Deploy honeypot system

During the reporting period, we deployed honeypots in critical business systems and networks to trap and record unauthorized access attempts.

In 2023

We added honeypot nodes

27

Allocated honey traps

5,012

With these nodes and traps, we detected attacks

899,698

A month-on-month rise of

355.15%

We deployed a combination of SOARs and honeypots, triggering automatic warnings and attack interceptions.

7,114

### Collect threat intelligence

During the reporting period, we collected threat intelligence from multiple sources, including malicious IP addresses, domain names, and file hashes. We input threat intelligence in security devices and systems to block malicious requests and automate responses in real time. In addition, we increased threat intelligence operation, responding to 18,253 threat intelligence alarms all year around.

Responding to threat intelligence alarms all year around.

18,253

## Security Risk Control

Tuya has assigned specialized security teams with identifying, tracking, investigating, and fixing security vulnerabilities. To control information security risks to an acceptable level, we have performed risk assessments at least once a year. We have aligned our security risk assessment strategies with international mainstream security control standards. Furthermore, we have analyzed risk factors in system mechanisms from a global modeling view, thereby controlling and mitigating risk impacts effectively.

### Security penetration testing

- Our security team conducts security penetration tests for all business codes before these codes are put into service, and for ongoing business items from time to time as well.
- We engage third-party security service providers to participate in penetration tests for our cloud services, mobile clients, hardware products, and IT architecture.

### Vulnerability risk assessment

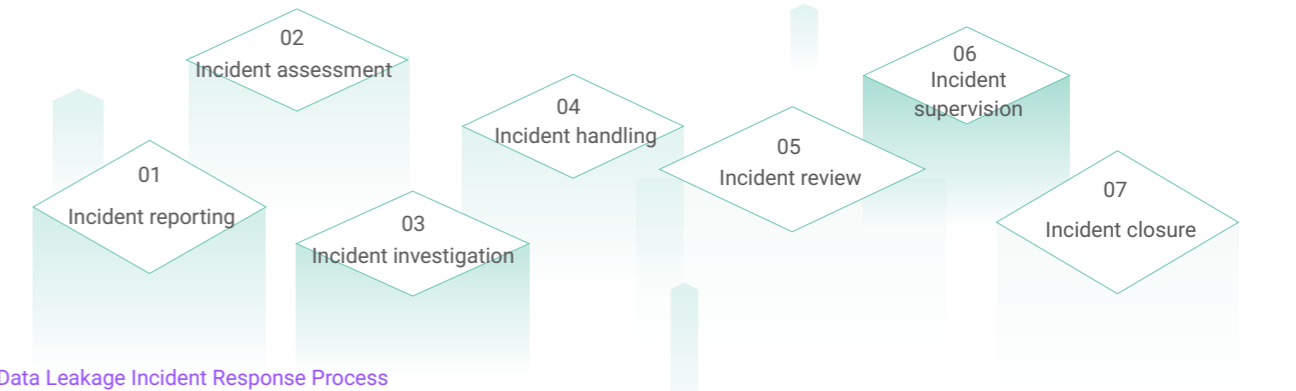
- We organize risk assessment and rating in accordance with the *Vulnerability Risk Rating* from such aspects as technical requirements of attacks, impact coverage, difficulty of discovering and exploiting vulnerabilities, business importance, and possible damage caused by vulnerabilities.

### Bug fix

- We timely fix cloud vulnerabilities identified according to vulnerability rating results and processing principles. Specifically, the most pressing vulnerabilities should be identified by security teams within 6 hours, and fixed by development teams within 12 hours. High-risk vulnerabilities should be identified within 1 day, and fixed within 2 days. Medium-risk vulnerabilities should be identified within 3 days, and fixed within 1 week. Low-risk vulnerabilities should be subject to such a fix cycle as is determined according to the business situation.

### Management Process of Security Risk Vulnerabilities

We have worked out data leakage emergency plan and emergency response mechanism, and follow the procedure regulations, such as the *Security Incident Emergency Plan*, the *Information Leakage Incident Emergency Plan*, and the *Emergency Response Procedures* for strict control of data security risks. We specify response actions for security incident emergency plan before, during and after an emergency, to tackle problems rapidly, orderly and accurately, analyze problems and hold violators accountable. In addition, we have defined the reporting and handling procedures for acts or incidents that may cause data leakage in order to respond to data leakage timely and effectively, and minimize the impact of data leakage on Tuya and its customers.



Data Leakage Incident Response Process

We regularly organize attack defense drills and penetration tests for possible data leakage to improve the blocking, detecting, responding, abilities of our security protection system. During the reporting period, we conducted two internal attack defense drills and one third-party attack defense drill. We have the ability to respond to asset and security risk incidents correctly, orderly and efficiently, thus ensuring our normal operations.

Security risk defense drills

- During the reporting period, we identified 10 vulnerabilities in internal attack defense drills, including 2 most pressing vulnerabilities, 5 high-risk vulnerabilities, and 3 medium-risk vulnerabilities. With repeated drills, we see far less security risks, and much better defense abilities.
- In 2023, we employed third-party agencies to conduct attack defense drills.continuously In cyber penetration testing, we identified 1 high-risk vulnerability and 2 medium-risk vulnerabilities, a year-on-year drop of 81.3%.

Tuya has obtained and renewed numerous external cyber security certifications

EU's General Data Protection Regulation (GDPR) Compliance Audit



California Consumer Privacy Act (CCPA) Compliance Audit



China Cyber Security (Level 3) Protection Filing Certification



AICPA SOC 2&3 Compliance Control Measures And Targeted Audit



The Personal Information Protection and Electronic Documents Act (PIPEDA) in Canada, and QuébecBill 64

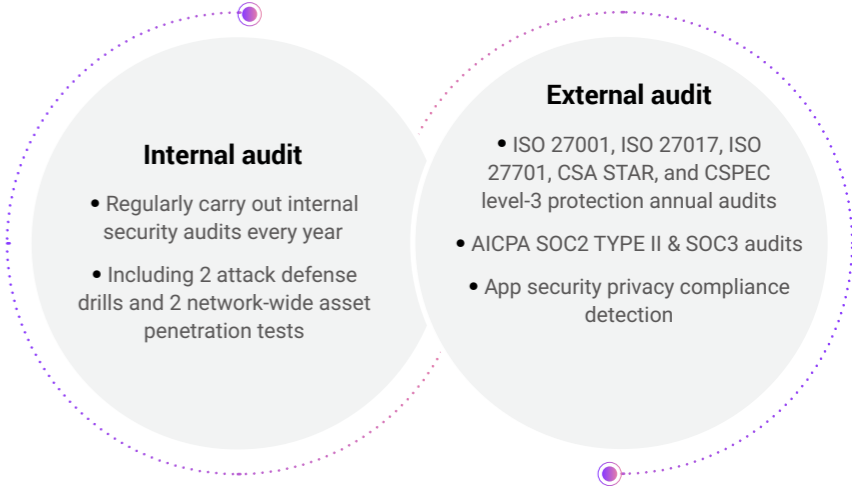


Privacy Policy And Privacy-Related Controls – TRUSTe Certified Privacy



Information Security Audit

We comply with domestic and international information security standards and industry requirements in our internal control framework, and cloud development platforms and products. We launch internal audits on cyber security of our cloud service platforms and internal systems on regular basis, and always conduct third-party audits and certifications to verify the effective operation of our security protection system. During the reporting period, we once again successfully passed various third-party annual audits.



The certifications of security management system that Tuya has obtained include ISO/IEC 27001:2013, ISO/IEC 27017:2015, ISO/IEC 27701:2019, and CSA STAR golf medal

ISO 27001 certification



ISO 27017 certification



ISO 27701 certification



CSA STAR certification



Information Security Training

Our efforts have been concentrated on developing information security culture, and raising security awareness among employees. To be more precise, we have issued the *Information Security Manual for Employees*, requiring employees to continuously consolidate their information security expertise. To improve the information security management capabilities of all employees, we have regularly arranged security training sessions and examinations tailored to new employees, all employees, and business-side employees. Besides, we have imposed punitive measures on employees who violated security policies and procedures, and made company-wide announcement on employees with weak safety awareness, thus attracting the attention and vigilance of information security among all employees.

During the reporting period



**Training sessions for new employees**

Tuya organizes information security training sessions for new employees, especially sessions over in-house information security management regulations, to help new employees enhance information security awareness and ensure they have the ability to operate safely and compliantly before taking up their posts.

**Updating security standards for all employees**

Our compliance and legal teams promptly analyze and interpret new information security laws, regulations, policies, and international standards. Then, we publicize these documents among all employees through our internal WeChat account of security and compliance.

**Training sessions over security and compliance abilities for business-side employees**

Tuya regularly holds security development training sessions, and information security exchanges over secure coding standards, penetration testing skills, common security vulnerabilities, and business security within the Company, to improve the security abilities of employees in key positions to deliver safe and compliant products, solutions and services.

In addition to fostering information security culture, Tuya shares its experience and insights of information security systems and measures with the public. We have continuously published and updated the *Tuya White Paper on Information Security & Compliance*, the *Tuya General Data Protection Regulation (GDPR) White Paper*, and the *Brazil's Data Protection Law [Lei Geral de Proteção de Dados (LGPD)] White Paper* to provide our customers and users with a more comprehensive and systematic understanding of the information security and compliance management measures, and a deep security insight into our cloud platforms.

Tuya White Paper on Information Security & Compliance



Tuya GDPR White Paper



Brazil's LGPD White Paper



We have increased security and compliance exchanges with external organizations, and discussed and shared latest security protection measures and achievements with these organizations, so that we can learn from each other's strengths to improve the Company's information security protection system. It is expected that by using security expertise from external sources, we step up our security culture education effect, and help our employees broaden security horizons, and understand the latest security and compliance trends.

Strategic Cooperation between Tuya and Palo Alto Networks

In 2023, Tuya built a strategic partnership with Palo Alto Networks for the first time. Under the cooperation framework, we launched the first phase of penetration tests on two smart devices. After rigorous security assessments, both products received the highest security score "Excellent" from Palo Alto Networks, demonstrating the security recognition of our product solutions. In the future, PaloAlto Networks will initiate more penetration tests on Tuya Cloud and our Apps.

Joint Establishment of Collaborative Security Lab with Amazon Web Services (AWS)

In 2023, Tuya and AWS established a collaborative security lab. Both parties will work together to drive scientific and technological innovations focusing on joint creation of security practices in smart homes, data security, security culture construction, overseas compliance, and other fields, with a focus on confidential computing and data privacy, Matter technology cooperation and system construction, and generative AI in the IoT field.



Cooperation between Tuya and AWS

Joint Exploration between Tuya and AWS on Safe and Trustworthy Data Processing Solutions



To ensure absolute data security and trustworthiness, Tuya has built physical trusted computing capability with the help of AWS's Trusted Cloud Enclave. With the help from this advanced facility, we have enabled security signature for our user data processing program (Application), code and execution environment, ensuring completely trusted environment, code and data. This initiative provides robust security assurance for customer data. What's more, we have maintained a close bond with AWS KMS (Key Management Service), allowing secure housing of keys, and data encryption/decryption operations in a trusted environment. This bond ensures rigorous key management and effective prevention of key leakage or illegal use.

# Privacy Protection

Putting protection of users' personal privacy at our top priority, Tuya comply with applicable laws and regulations in the places where we operate, such as the *Consumer Rights Protection Law of the People's Republic of China*, and we have formulated the *Tuya Data Retention Strategy* as an internal reference for user privacy data protection.

Our Privacy Policy

- We have released our privacy protection policies such as the *Privacy Policy* and the *Third-party Information Sharing List*, so as to make it clear to our users for our commitments to and practices of personal information and privacy protection.
- We comply with the privacy security guidelines in the *Privacy Policy* and the *Tuya White Paper on Information Security & Compliance* in our operation, and require our suppliers and partners to strictly abide by our privacy protection rules.
- We integrate privacy security management into our security compliance and management system, and update our privacy policy at least once a year based on the actual situation to ensure privacy management compliance.

The Compliance Committee is the highest responsible organization for privacy protection, and assigns the Privacy Office and customer service team for handling privacy issues. Tuya commmits to follow seven principles in collection, processing, storage, and deletion of user information. These principles include consistency in rights and responsibilities, clear purpose, opt-in, data minimization, openness and transparency, security assurance, and subject participation. We hold a zero-tolerance stance towards violations of user privacy, and hold violators accountable in accordance with the disciplinary actions provisions outlined in the *Information Security Manual for Employees*, and the *Employee Business Code of Conduct*.



For the purpose of better user information protection ability and effect, Tuya scans sensitive data in the database regularly, and desensitizes key personal information, preventing user information leakage. Furthermore, we open up privacy risk feedback channels, such as official website feedback channel, customer service email, privacy office email, emergency response center email, and information security office email, allowing our users to report privacy protection issues. Then, our competent teams will investigate reported cases, and identify and eliminate risks.

Principle of consistency  
in rights and responsi-  
bilities

- Take responsibility for any damage to the users' legitimate rights and interests, which are caused by our activities of processing personal information.

Principle of clear purpose

- Have a legal, legitimate, necessary, and clear purpose of processing personal information.

Opt-in principle

- Clearly state the purpose, method, scope, rules, etc., of processing personal information to users, and seek their authorizations and consent.

Principle of least sufficient, that is, principle of data minimization

- Unless otherwise agreed with users, only the minimum types and amount of personal information required to meet the purpose authorized by the users shall be processed, and no information that is unrelated to the service shall be collected, stored, requested, provided, or transmitted. Upon the purpose is achieved, personal information shall be deleted promptly according to the agreement.

Principle of security assurance

- Have security capabilities that match the security risks to be faced with, and take adequate management measures and technical means to protect the confidentiality, integrity, and availability of personal information.

Principle of openness and transparency

- Disclose the scope, purpose, rules, etc., of processing personal information in a clear, understandable and reasonable manner, and accept external supervision.

Principle of subject participation

- Provide users with the means to access, correct, and delete their personal information, as well as withdraw consent, cancel their accounts, etc.

Seven Principles of User Information Processing

# Products and Services

Tuya, a global leading IoT provider, remains on track of its strategic orientation amidst booming industry and increasing competition. We dedicate ourselves to delivering excellent products and services, and empowering the public with scientific and technological strength. Insisting on integrity and innovation, we provide comprehensive assurance of product quality and service reputation, and wholeheartedly offer reliable solutions to customers.

## Product Innovation

Building on independently-developed cloud platforms with favorable expansibility and high value, Tuya continues to explore the innovative development and multi-scenario application of technology products. Embracing the green development tendency, we fully integrate IoT PaaS and SaaS systems into our smart solutions and provide effective approaches for enterprises and all sectors of society to achieve low-carbon transformation. Tuya provides customers in household, commercial, and industrial sectors with interconnected electronic products of various categories to boost their green, low-carbon, energy-saving and environmentally-friendly development in more business verticals.

IoT PaaS

Based on our capabilities and standards of IoT cloud platforms, we have developed a number of smart and green products including smart gateways, smart circuit breakers, smart lights, and smart sockets, which promotes the development and interconnection of downstream smart products while helping our customers in energy conservation and efficiency improvement.

Smart Business SaaS

Our SaaS products are developed with integrated software-hardware solutions to meet the smart application needs of different customers in hotels, apartments, buildings, homes, and properties. We have prepared a rich library of hardware products that are optimally compatible with our SaaS products.

To maintain innovation vitality, Tuya has made sustained efforts to foster the innovation awareness of employees, and share the latest industry development trends and application prospects with employees. During the reporting period, we conducted multiple training sessions regarding carbon identification, accounting, and reduction according to low-carbon and smart product development needs to help employees further understand and apply carbon expertise. Through analyzing the carbon accounting logic and carbon reduction needs, we guided employees to devise carbon reduction strategies in product realization. With these training sessions, we aimed to encourage employees to build and maintain carbon reduction and green innovation mindset, and enhance their innovation abilities of products and application scenarios.

## Hardware Development

The automatic and efficient performance of hardware products is an important part of Tuya's leading integrated software and hardware solutions. According to customer needs and keen industry insights, Tuya has independently developed a series of hardware modules with favorable expansibility and high application value through repeated testing and field verification. These safe, reliable, efficient, and affordable hardware products are preferred choices for customers.

- Developing automatic testing machine
- Tuya developed an automatic testing machine with automatic feeding function to replace the traditional manual testing machine that was time-consuming and labor-intensive. The new testing machine reduces labor cost and enhances process efficiency.
- Innovating automatic lighting test solution

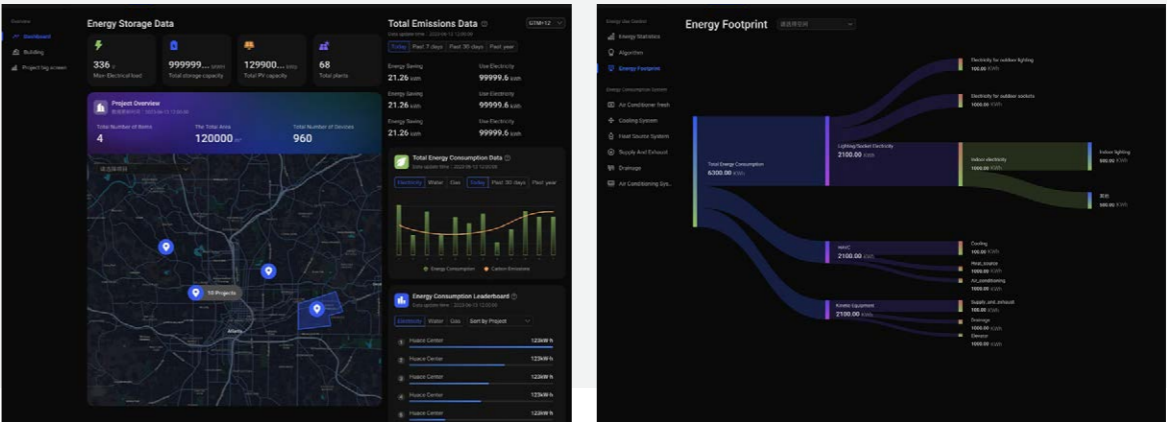
Tuya applied smart switch components in lighting test solution, allowing lighting testers to operate more easily and safely. The simply-designed automatic lighting test system adopts wireless transmission, requires less footprint, and it can automatically collects and identifies lighting parameters, thus improving measurement accuracy and operation safety.

## Software Development

Tuya has rolled out a series of green and smart platforms enabling energy consumption management, strategic analysis, energy conservation and efficiency improvement in all application scenarios. These solutions satisfy the needs of customers in low-carbon transformation, and assist our customers and partners in fulfilling carbon reduction goals.

### Net-Zero Platform

The Net-Zero Platform is a member of our major smart, energy-saving and low-carbon service product mix. Relying on the diverse hardware ecosystems and intelligent IoT platform functions, this platform works to measure energy consumption and carbon emissions precisely as per GHG standards, and track carbon footprint on all fronts. Based on the AI analysis model independently developed by Tuya, this platform is able to optimize energy use in buildings/enterprise operations, and output energy-saving and low-carbon strategies to help enterprises achieve energy-saving and zero-carbon goals.



Three advantages of this platform

1. Solution integration

Two dimensions of its powerful solution integration ability:

- 1) Robust IoT ecosystem enabling hardware integration via our gateway in either wired or wireless form, and supporting Modbus, LoRa and other standard protocols.
- 2) Equipping standard API/SDK, and system integration tools to connect third-party systems, which minimizes intrusion into native systems.

2. Energy conservation

By using IoT abilities, the Net-zero captures energy-consuming devices in buildings, such as water/power/gas meters, air conditioners, and BA systems. With the self-developed algorithm model, this platform figures out energy data flow. Using the AI big data model, this platform taps energy conservation potential, and generates control instructions. As a result, it effectively saves energy and optimizes operations in lighting, air conditioning, water, power, gas and other application scenarios.

3. Carbon accounting

As a substitute for traditional carbon accounting product that is time-consuming and labor-intensive, this platform automatically collects most of carbon emission data by using IoT abilities, and captures and computes indirect carbon emission data by connecting itself to third-party business systems automatically, avoiding errors caused by manual operation. The Net-zero platform is equipped with multiple international standards of carbon accounting that meet audit requirements.



Energy Conservation Applets

Our energy-saving applets support household energy data analysis and energy conservation services.

Energy data analysis services:



Energy use trend analysis

Figure out whether the optimized power consumption strategy is effective according to the power consumption trend, and make adjustments timely



Analysis of power consumption distribution

Identify devices or rooms that can further save energy referring to power consumption distribution data



Analysis of abnormal power consumption

Verify whether there is any energy waste by checking related data, and guide relevant consumers to adjust their power consumption habits

Energy conservation services:



Recommendations on energy conservation strategies

Recommend proper energy conservation strategies automatically according to the device types of users



Automatic energy conservation

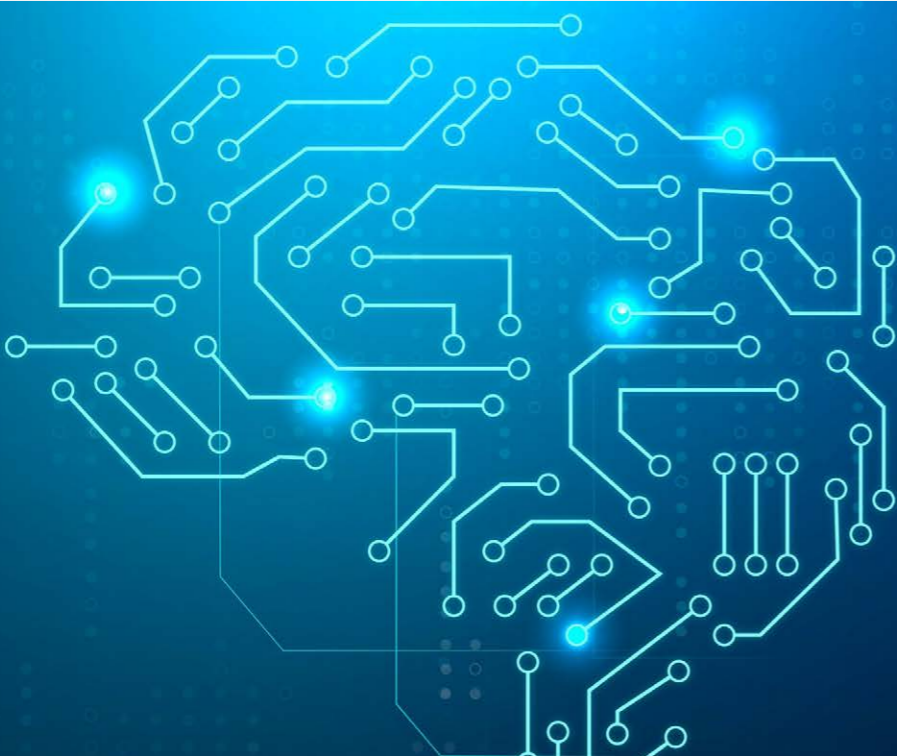
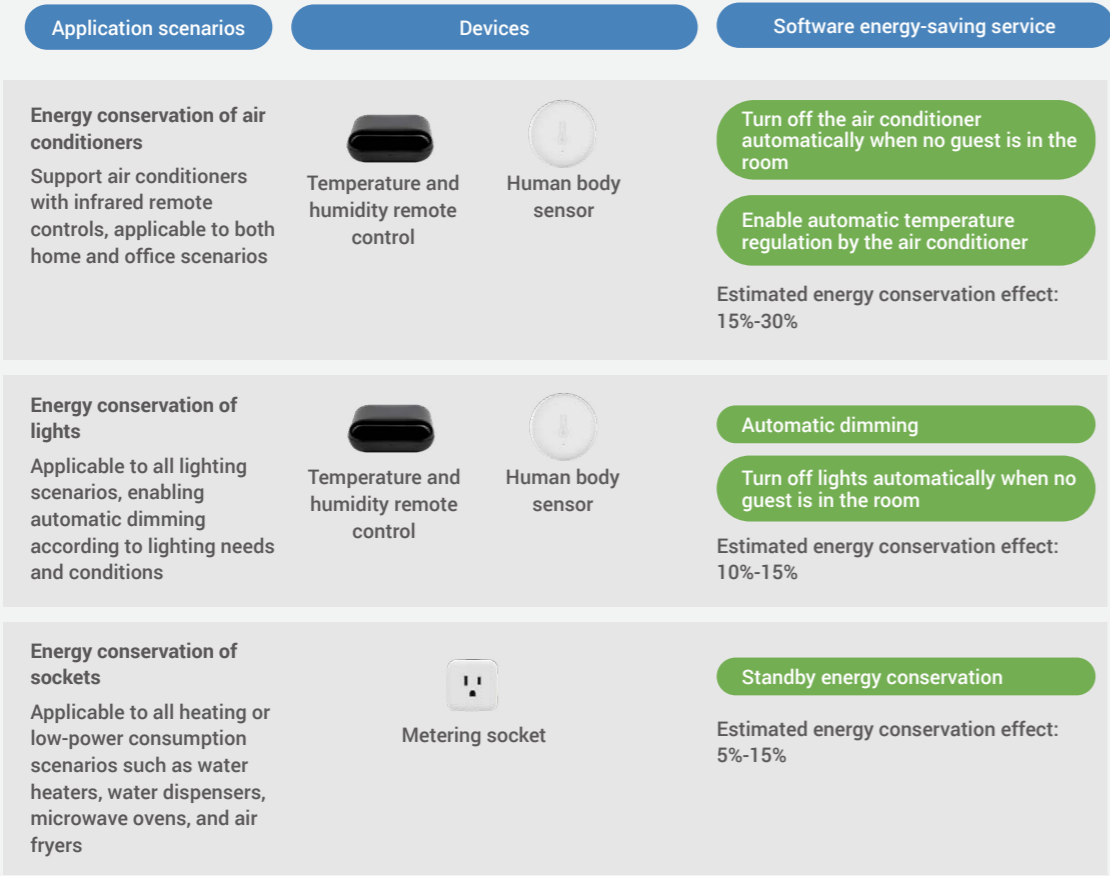
Detect energy waste in devices according to device logs, user behaviors, and weather data, and switch to more energy-saving modes



Energy conservation data statistics

Present device energy conservation logs, and energy-saving time statistics

The energy conservation applets support access to more than 300 energy-saving devices, including but not limited to lights, sockets, infrared universal remote controls, door sensors, human presence sensors, temperature and humidity sensors, fans, inverters, air conditioners, thermostats, temperature control valves, wall-mounted heaters, and heat pump. In actual use, these applets can save up to 45% energy depending on different device types and application scenarios.



Household Energy Management Solutions

To address energy conservation problems of electric devices, and relieve the electricity bill anxiety of households, Tuya has rolled out a number of new household energy management solutions targeting smart devices, energy-intensive devices such as air conditioners, and off-peak power consumption needs to help households save energy and reduce carbon emissions.

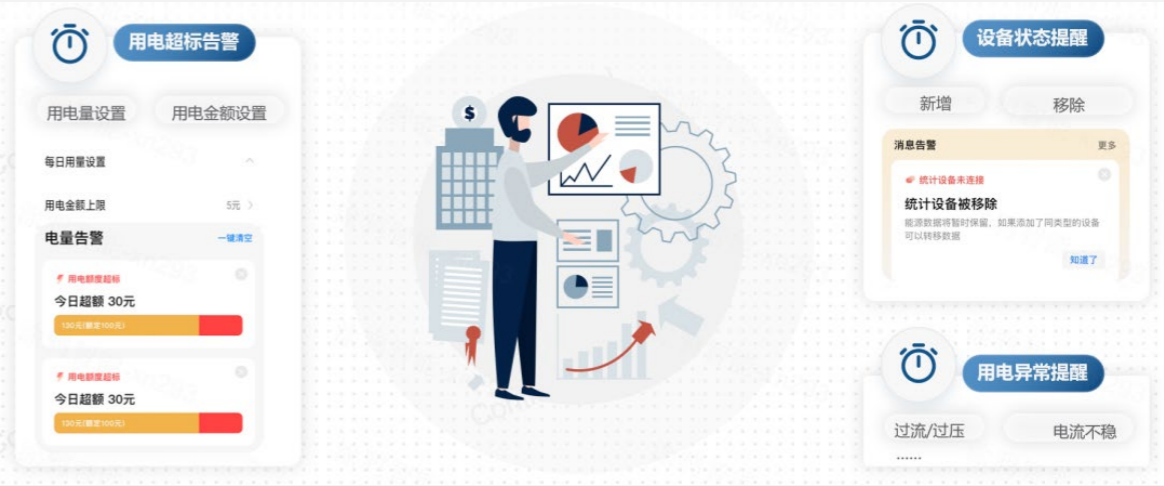
Visual energy consumption of home appliances, and better household energy conservation strategies

Tuya provides household users with an increasing number of energy-efficient home appliances. The household energy conservation solutions interconnect smart devices, such as smart power/water/gas meters, circuit breakers, inverters, and charging piles, and generate detailed energy consumption reports separately.



Achieve energy saving for high energy-consuming equipment and create a closed loop of household energy saving

Tuya has introduced energy conservation packages for energy-intensive devices. The proper combinations of energy conservation and carbon reduction applets and smart hardware products in the packages reasonably plan energy consumption of energy-intensive devices such as air conditioners, thus allowing the closed-loop management of household energy conservation. Applets present the power consumption ranking list of devices to users in real time, and push energy conservation strategies automatically when devices keep running at high load for a long time. Thanks to these solutions, customers reduce power consumption while enjoying comfortable living space.



Automatic peak load shifting, and reasonable energy conservation

According to local peak load shifting policies, and power consumption habits of users, Tuya tailors peak load shifting solutions for customers to prevent power overconsumption and failure of access to power supply. In addition, Tuya set up a reward mechanism to mobilize the enthusiasm of users to save power, and encourages more households to consume power rationally, save energy, and reduce carbon emissions.

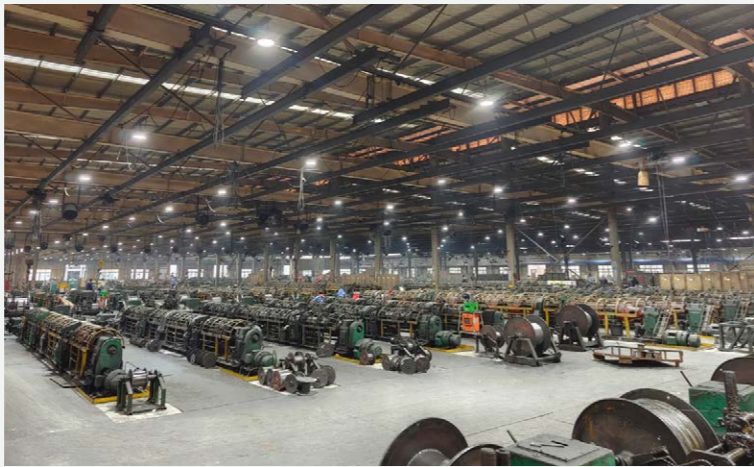
### Smart Industrial Lighting Solution

The smart industrial lighting solution under the Tuya Smart Commercial Lighting business vertical is empowered with Tuya IoT, artificial intelligence, big data, PaaS cloud platform capabilities, and diverse software and hardware ecosystems. This solution works to connect ceiling lights in the workshop with Tuya's smart devices, monitor lighting data, and control lights in a smart fashion, saving power energy. In addition, this solution collects power consumption data, and makes power consumption adjustments properly, reducing lighting operation and maintenance costs in the workshop.

• Solution functions:

- Flexible lighting control: ON/OFF control of individual lights, group lights, lights in specific areas, and all lights;
- Illuminance control: flexible control of dimming intensity, offsetting light decay;
- Visual management of devices: remote control and monitoring of operating status;
- Automatic lighting control: flexible control of light switches and lighting intensity to reduce comprehensive power consumption for lighting purpose;
- Real-time power consumption measurement: centralized monitoring of energy consumption in the background, and output of statistical reports.

Tuya upgraded lighting facilities in the workshop of a company, aiming for energy consumption, cost reduction, and efficiency improvement. The up-graded solution equips lighting facilities with smart control functions including area, dimming, timing, scenario, and automation controls, as well as energy consumption and failure statistics. Furthermore, the Tuya Smart Commercial Lighting SaaS System enables visual and digital lighting management, thus being a competent assistant for the user to manage and operate lighting facilities.



• Before upgrade

The workshop was furnished with dimmer-free electrodeless electromagnetic induction lights. These lights could not be controlled by areas, which required excessive power consumption due to inefficient lighting. It was impossible to accurately identify failures in troubleshooting operations, which was time-consuming and labor-intensive.

• After upgrade

New lights were installed along with bluetooth mesh controllers containing Tuya modules (Tuya Intelligent Module). In addition, bluetooth gateways, 4G routers, and Tuya Smart Lighting SaaS System were equipped on site.

In the nearly 40,000 m<sup>2</sup> workshop, 503 electrodeless lights were replaced with smart lights, increasing energy-saving efficiency by over **60%**, and reducing carbon dioxide emissions by **124.75** tons per year.

### Parking Lot Lighting Solution

Tuya is able to design and implement lighting solutions featuring digital remote management, and helps customers to upgrade lighting systems in underground parking lots just within a short time.

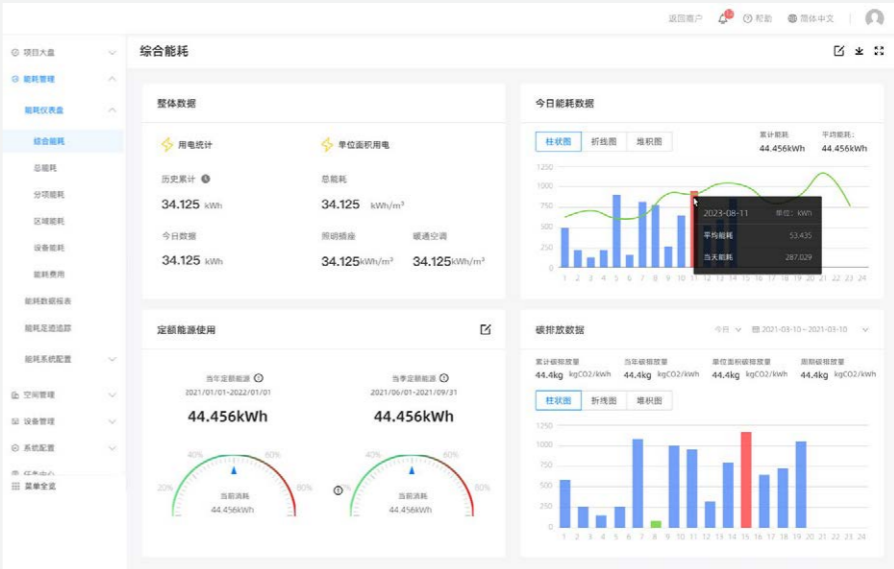


Tough lighting problems faced by an underground parking lot in a commercial building before upgrade:

- Excessive energy consumption: traditional fluorescent lights (T8 36W), 24/7 ON state, wasting massive energy;
- No energy consumption monitoring: no energy consumption measurement, difficult to identify and analyze energy consumption exceptions;
- High operation and maintenance costs: short service life of fluorescent lights, requiring frequent maintenance; cumbersome manual ON/OFF operations of lights.

• Solution

In the upgrade project, replaceable LED (T8 18W) tubes were used, with microwave radar sensing and bluetooth ad-hoc networking functions; energy consumption metering air switches and wireless multi-mode gateways were installed easily on site. The routine energy conservation strategy is to turn on and then off lights within 20s after a motion sensor worked. And multiple timing and energy conservation strategies are available targeting weekdays, weekends, and morning and evening rush hours. The system adopted in the project enables real-time energy consumption statistics, remote control of switches, and SMS alerts. After upgrade, the project was expected to reduce energy consumption by over 94%.



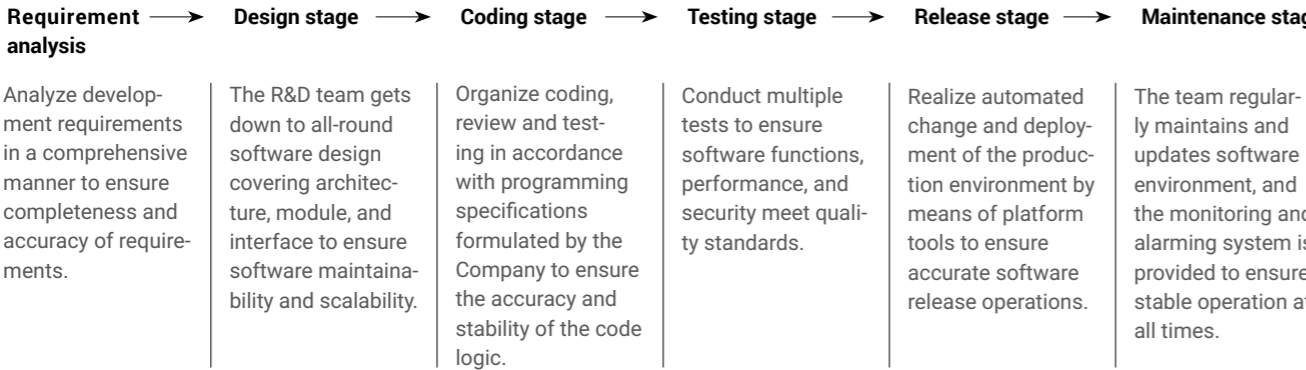
Real-time Operation Platform

# Quality Assurance

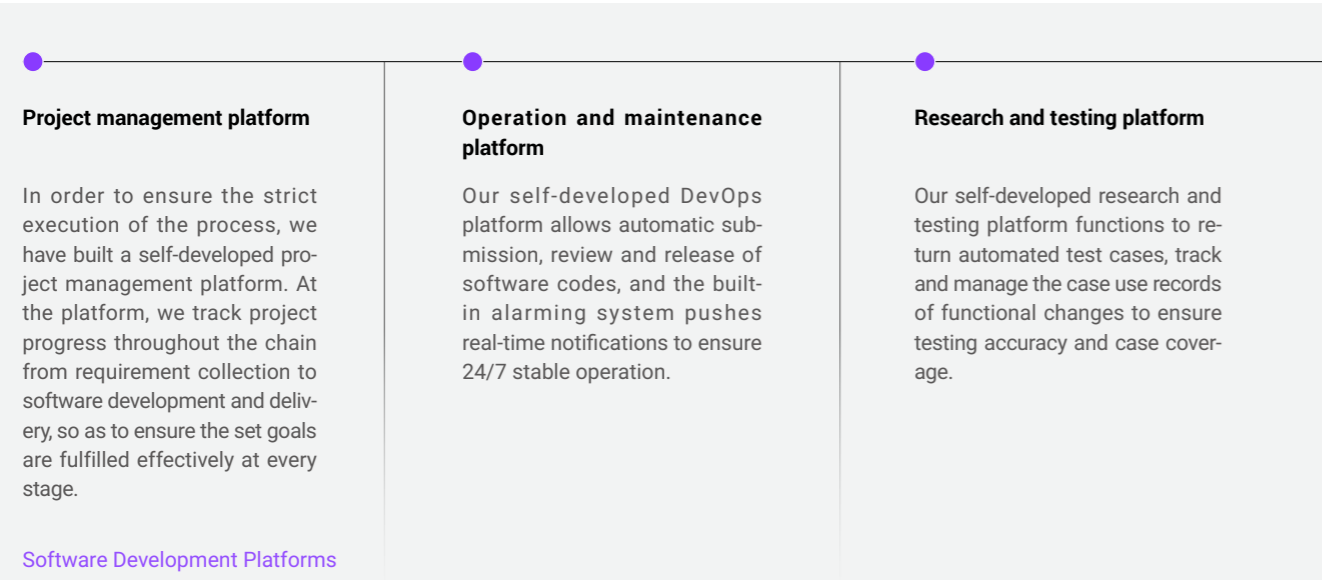
Tuya is dedicated to providing trustworthy products and services. To achieve this goal, we have established a well-structured policy framework, and implemented efficient management measures, maintaining a responsible corporate image, and first-class reputation within the industry. We have attained numerous international certifications for our software and hardware quality meeting stringent standards, which provides key support to the safe and steady development of the IoT industry.

## Software Quality Assurance

Tuya has endeavored to ensure the stable performance of software products by complying with the strictest quality standards in software development. We have continued to refine our software quality assurance system, and managed software development and operation quality from all aspects relying on our standard-based software development processes and independently-developed platform tools in order to offer safe and reliable software products to our customers.



Software Development Process



Software Development Platforms

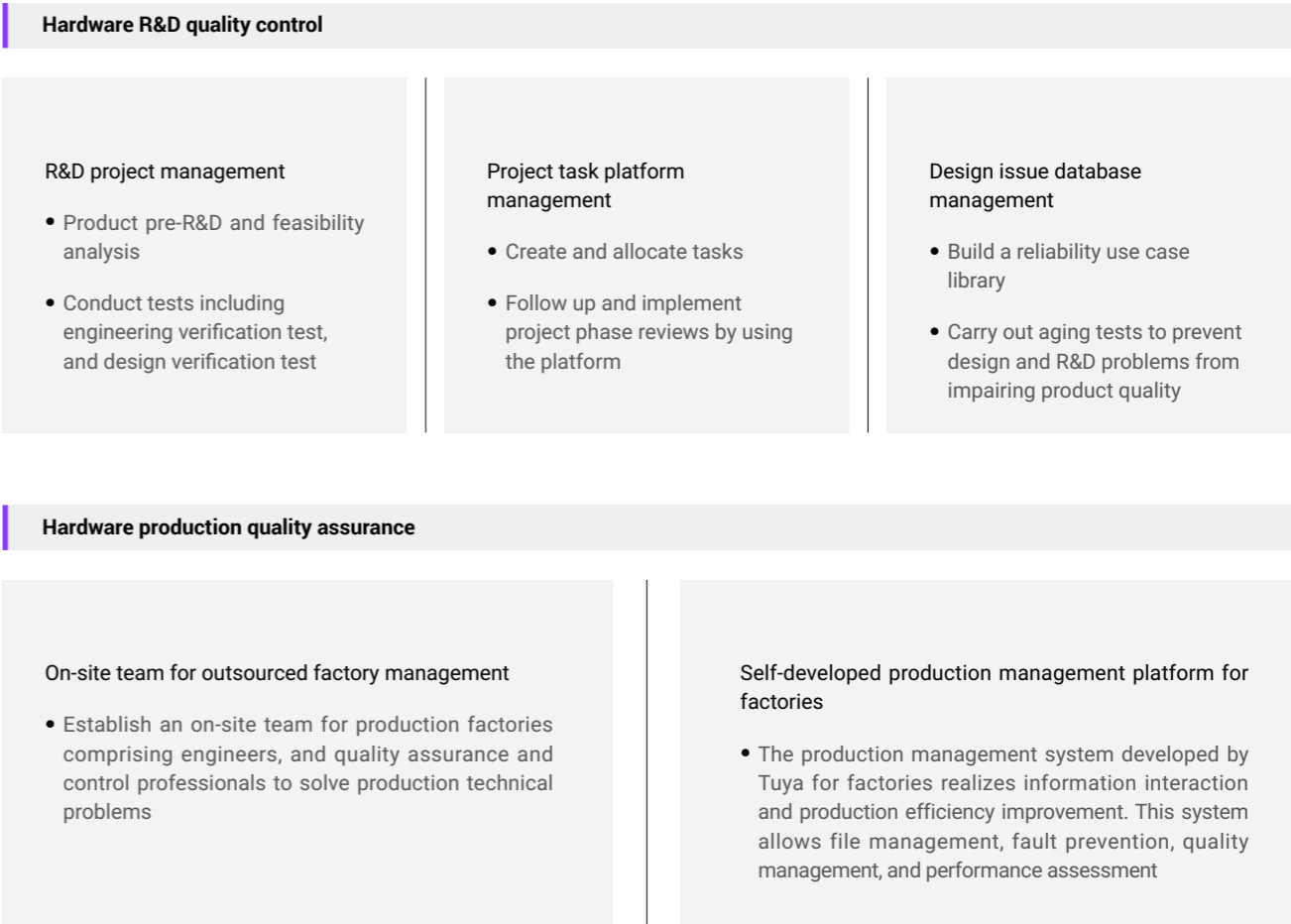
## Hardware Quality Assurance

As an all-in-one complete product, our IoT PaaS contains an IoT cloud module embedded with Tuya OS operating system software, apart from cloud system and App software. And the purchase and sale of smart hardware devices is also a part of our smart device distribution business. Therefore, in addition to assuring the quality and safety of Tuya's cloud platform and software delivery, we recognize that the delivery quality of excellent hardware components enables Tuya to provide corporate customers with high-value integrated software-hardware solutions, and ensure the best IoT device experience for end users.

Tuya strictly follow the *Product Quality Law of the People's Republic of China*, the *Law of the People's Republic of China on the Protection of Consumer Rights and Interests*, the *ISO 9001 Management System Standards and Specifications* and other relevant laws and regulations in each place of operation or international standards and specifications. We have formulated a series of quality control documents including the *Quality Manual*, the *Product Strategy and Program Management Process*, the *Product Design and Development Process*, and the *Product Delivery Process*. During the reporting period, we released 12 new quality documents, further improving the

product quality standards throughout the product life cycle. Besides, we obtained the ISO 9001 quality management system certificate, and passed the annual audit of ISO 9001 certification with the audit result of "zero non-conformity" this year.

As hardware product quality greatly depends on R&D and production quality control, Tuya has introduced a standard-based hardware R&D process, and assigned professional teams to guide production quality and incorporate quality requirements into R&D and production stages.



Hardware R&D and Production Quality Control

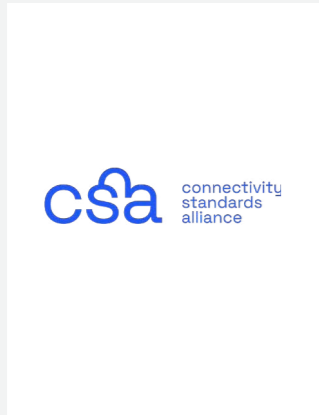
We have made active efforts to attain international certificates for our smart hardware products to ensure the best delivery of our products and reputation of product functions, and clearly demonstrate our product quality and brand performance. As of the end of the reporting period, we have passed international certifications for multiple modules, including ETSI EN 303645 certification, NISTIR 8259 security certification, ioXt product safety certification, and PSA Certified certification, which is clear endorsement for our product quality and goodwill.

Product Standard Certifications



PSA Certified certification

- The PSA Certified is an independent IoT security framework and certification program originally founded by Arm and six industry-leading security companies and evaluation laboratories to support the large-scale deployment of secure IoT solutions.
- Passing the PSA Certified Level 1 certification proves that the TS24-U Matter over Thread module developed by Tuya has been recognized for its security from design to deployment, and gained the assurance of having the necessary security measures and defense mechanisms to effectively respond to security threats and potential risks. Developers who use the TS24-U module to finish Matter over Thread device development can not only ensure that the Matter devices have fundamental information security capabilities, but it also improves users' trust in the brand's products.



PAA certification

- Matter has strict standards for development, testing, and mass production of devices. In terms of device security, Matter standards mandate that before devices can be sold to the public, all Matter devices must have a Device Attestation Certificate (DAC) provided by a reputable PAA.
- We received the Non-VID Scoped PAA certification authorization which demonstrates our smart hardware solutions and key management are in line with the security standards of international CA organizations. This makes Tuya one of the few businesses in the world to offer both Full-stack Solutions for Matter and Matter Non-VID Scoped PAA certificates. Also, this means that Tuya is able to assist more than 782,000 global developers in completing the Matter device security certification more quickly, easily, and affordably.



ioXt product safety certification

- Founded by leading technology and device manufacturing firms, including Google, Amazon, T-Mobile, and Comcast, ioXt Certification is the only industry-led, global IoT security certification program in the world. Products and Apps with the ioXt SmartCert labels give consumers and retailers greater confidence in a highly connected world.
- Up to now, our 2 Apps and 9 modules have received ioXt certifications, namely Tuya Smart App, Smart Life App, and Modules WBR3N, CB2L, CB2S, CB3L, CB3S, CBL5, CBL9, CBU and CBU-ipex.



ETSI EN 303645 product security technical standard audit

- ETSI EN 303645 is a European standard on cyber security initiatives in consumer IoT security. This technical standard mainly regulates the cyber security of consumer IoT products and services, and commercial IoT products in the scope. It aims to establish a security baseline of defense for consumer IoT products, and protect user privacy. It helps IoT products comply with security guidelines by design, and support global IoT product network security and European GDPR compliance.
- Our 12 modules including WBR1, WBR2, WBR3, and TYWE1S, have obtained TÜV SÜD's ETSI EN 303645 evaluation and certification. It demonstrates that our WIFI, BLE and Zigbee smart hardware solutions have met the EU's technical standards for consumer IoT product security, and have been aligned with GDPR's user data protection provisions. The certification shows that our product lines (such as Tuya Cloud, Tuya Smart Mobile Terminal, Tuya smart module products) have received third-party endorsement in terms of GDPR.



NISTIR 8259 security certification

- Developed by the National Institute of Standards and Technology (NIST), NISTIR 8259 is a foundational U.S. standard for smart device manufacturers and service providers, and one of the most comprehensive and widely accepted safeguards available to protect customers from cyber threats. It covers six cyber security capabilities for smart devices, including device identification, device configuration, logical access to interfaces, software and firmware update, and cyber security state awareness.
- Our CBU and ZSU series modules have received NISTIR 8259A evaluation reports. This means that our smart product solutions have reached a high level of security.



CMMI Level 3 certification

- CMMI (Capability Maturity Model Integration) is the latest version of the CMM model. It was developed by experts in software process improvement and software development management across the globe organized by the Software Engineering Institute of Carnegie Mellon University in the United States in a span of four years. CMMI is a kind of software capability maturity assessment standard that is promoted and implemented all over the world, and is mainly used to guide the improvement of software development process and evaluate software development capability.
- Tuya has obtained the certification of CMMI Capability Level 3: Defined, which clearly demonstrated that Tuya has the ability to establish this management system and process according to its own customized circumstances and standard process.

Other Hardware Certifications



CE certification

Tuya has passed the CE (Conformity of Europe) certification. This means our products can be sold in the EU member states.



FCC certification

Tuya has passed the FCC (Federal Communications Commission) certification. This means our products have been tested and approved in accordance with FCC technical standards, and can enter the U.S. market.



IC certification

Tuya has passed the IC (Industry Canada) certification, allowing our products to enter the Canadian market.



SRRC certification

Tuya has passed the SRRC certification (Radio Type Approval Certification), a mandatory certification of the Office of State Radio Regulatory Commission.



RoHS certification

Tuya has passed the RoHS (Restriction of Hazardous Substances) certification for its electronic and electrical products. It shows that the company's products have met the standard requirements for human health and environmental protection in terms of material and process standards.



REACH certification

Tuya has passed the REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) certification, proving our products do not contain chemical substances that are hazardous to the human body, and can be used safely.



CQC certification

Our CQC (China Quality Certification Center) certificate sufficiently demonstrates the quality and safety of our products.



CCC certification

Tuya has passed the CCC (China Compulsory Certification) certification. This means our products have met safety and quality standard requirements.

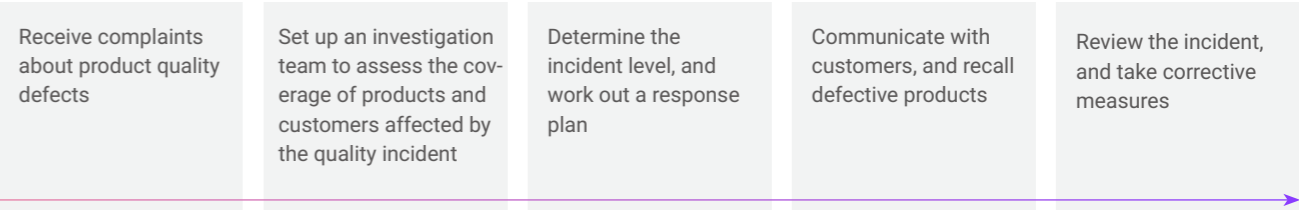


Smart Hardware (IT) Open Platform

Tuya has passed the "Smart Hardware (IT) Open Platform" certification testing, and was awarded the Credible Hardware (IT) Certification by the China Academy of Information and Communications Technology and the Mobile Smart Terminal Technology Innovation and Industry Alliance.

For production quality control, we have released 35 quality standards that suppliers should implement strictly, such as the *Product Protection Process*, the *Identification and Traceability Management Process*, the *Monitoring and Measurement Resource Management Process*, the *Product Inspection and Test Process*, and the *Unqualified Product Control Process*. In accordance with these strict standards, we control the quality of cloud modules and finished products such as smart home appliances, energy-saving products, sensors, gateways, lighting products, and electrical products, to prevent quality issues of products caused by design defects, substandard production and improper use of hardware components.

We have specified a full recall process for unqualified products in the *After-sales Customer Complaint Handling Process*, and trigger recall procedures according to the recall level as determined upon incident assessment. During the reporting period, Tuya did not experience any product recalls due to safety concern or impact on users' health.



Product Recall Process

Quality Training

Tuya provides employees with online and offline training sessions to help them to build quality awareness, and enhance quality management abilities. At our Tuya Academy and Tuya WIKI Platform, we have released a lot of training courses for employees to understand our products, technologies, and production quality standards. After training, participants are required to take online exams in our examination system, ensuring they have a full knowledge of quality control requirements.

Besides, we have organized online topic sharing sessions and steering sessions considering our business development conditions, and our employees' needs. During the reporting period, we held dozens of hardware technology sharing sessions, and sessions to call for compliance with procedures and specifications, such as training sessions of delivery service standards, and sharing sessions of central control hardware cases, so that employees understood the latest quality requirements clearly and timely.

Quality Training Modes

At the Tuya Academy, we have released many courses about the Company's products and new technologies. The production quality personnel are required to learn and take exams at the Tuya Academy on a regular basis in order to improve quality control awareness.

We organize regular offline exchange sessions with case study, sharing the latest technical requirements, and design and production experience, to improve the overall quality management abilities of our teams.

During the reporting period

participants received quality training sessions

491 employee-times

accounting for the total number of employees

35%

For the factory-based team of the Quality Control Department, QA also conducts regular skill training for the QC stationed in the factory, and conducts blind spot tests to ensure that the personnel's ability meets the requirements.

Establishment of Quality Standards

Tuya has actively contributed to developing and improving industrial quality standards. For this purpose, we have joined multiple IoT industry associations such as China Communications Standards Association. In addition, Tuya participated in drafting IoT standards, to promote IoT industrial development to a new development stage. During the reporting period, Tuya co-drafted a national standard titled *Switches for Household and Similar Fixed Electrical Installations*, sharing its wisdom to foster a healthy and well-organized IoT industry ecosystem.

# Responsible Marketing

Responsible marketing is a key to building a good corporate image, and expanding brand advantages. Tuya always adopts legitimate marketing means, and upholds transparent and open marketing and competition. We proactively refresh our brand positioning, and align it with the sustainability trend, showing our resolution to and practice of sustainable development.

Adhering to responsible marketing, we comply with applicable laws and regulations in the places where we operate, such as the *Anti-Unfair Competition Law of the People's Republic of China*, and the *Law of the People's Republic of China on the Protection of Consumer Rights and Interests*. Following the marketing guideline of "no exaggeration, and interpretation based on facts", we have formulated marketing approval management policies, including the *Exhibition Hall Management Policy*, the *Publicity Approval Process Policy*, and the *Media Interview Standard Process*, clarifying the approval process for external public activities.



Marketing Approval Process

In terms of product promotion, we abide by internal rules such as objective and standard-compliant product marketing, to gain trust of customers, and safeguard a good market order in an honest and transparent manner. During the reporting period, we integrated the concept of sustainable development into our brand promotion strategy, fully demonstrating the company's brand positioning that keeps pace with the times and its determination to practice sustainable concepts.

### Tuya Unveils its Four Signature Colors

During the reporting period, Tuya unveiled its four signature colors, namely, Viva Magenta, Skylight, Macchiato, and Love Bird that are presented harmoniously, we hope to use these four colors to illustrate a brand concept that is brave, pure and firm, inclusive and open, and full of vitality. Tuya is committed to fostering an open and inclusive ecosystem with its innovation-driven growing power, and empowering global developers to jointly advance the fulfillment of sustainable development goals.

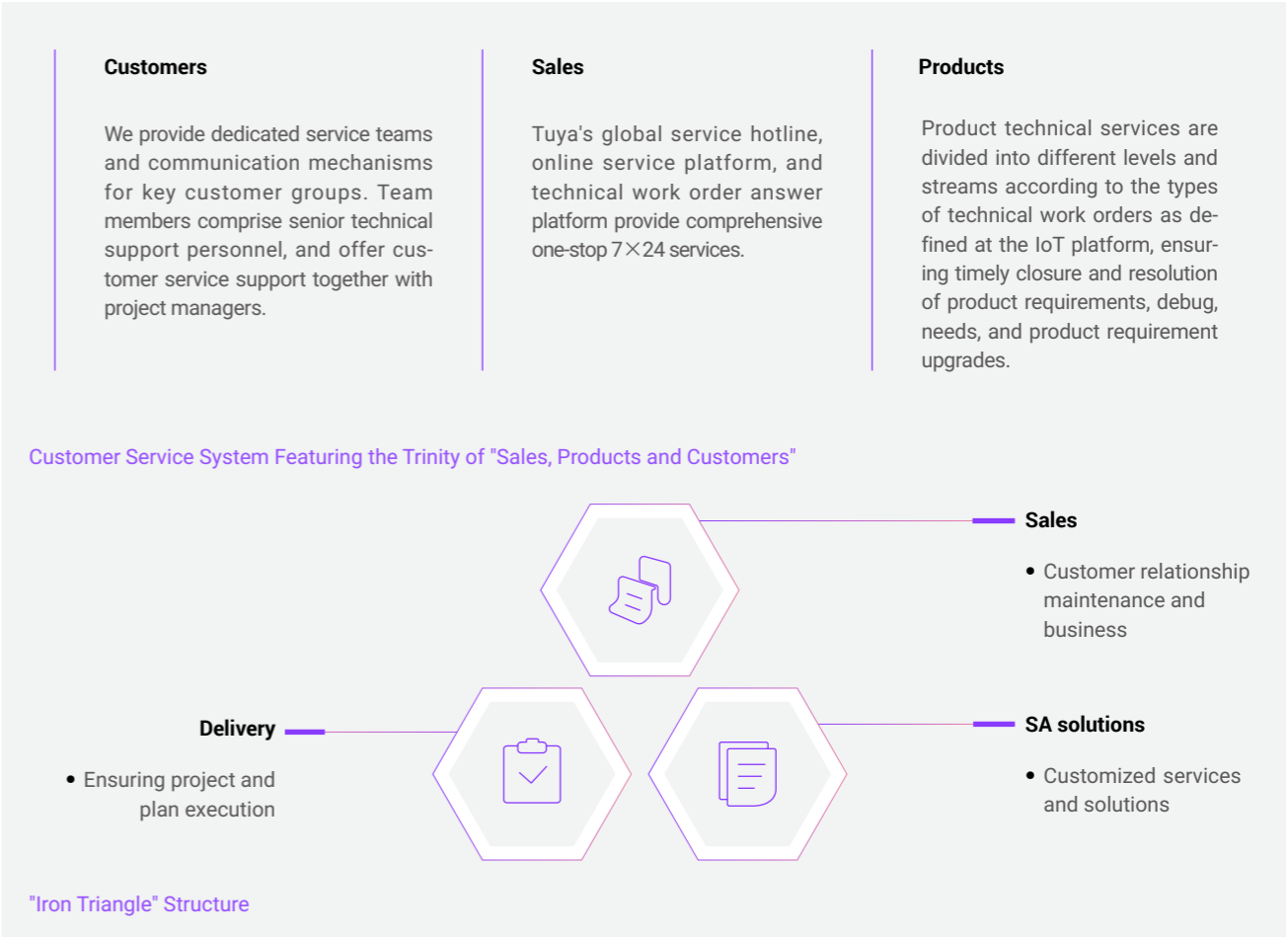
# Customer Services

Sticking to the operation philosophy of "Customer first" and always oriented to customer needs, Tuya has improved its business capabilities, and deployed the most skilled team to address customers' requests promptly, effectively, and flexibly throughout the project life cycle. Moreover, Tuya has continued to refine its customer service system, and follow the well-established complaint handling mechanism to provide customers with the optimal experience.

## Customer Service System

In line with standards and policies such as the *Code of Conduct for Customer Service*, and the *Customer Service Customer Complaint Handling Process*, Tuya has introduced a customer service system featuring the trinity of "sales, products and customers" to deliver timely, professional and effective services to customers. In addition, we have opened up smooth consultation and feedback channels to customers, and developed a hierarchical response mechanism to respond to different customers' needs effectively.

Facing external macro uncertainties, Tuya has built an "iron triangle" structure comprising three roles, namely sales, SA solutions, and delivery, to maintain long-standing relationship with customers. The "iron triangle" structure jointly engage in target customer attraction, plan design, R&D scheduling, input and delivery, and reach consensus to maximize input-output efficiency and value of each new project.

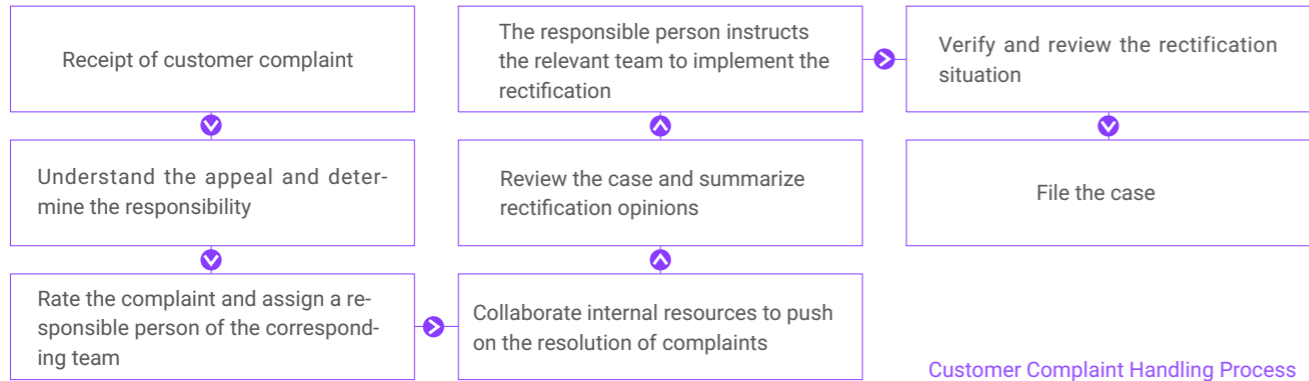


Customer Complaints

Tuya actively responds to customers' feedback and requests, and has created a full-process, high satisfaction customer service response system. We provide customers with convenient, fast and specialized feedback channels, wholeheartedly solve customers' demands, and demonstrate the service concept of customer first in all aspects.

<b>Online consultation</b> <ul style="list-style-type: none"><li>Online consultation at Tuya's official website service support portal</li></ul>	<b>E-mail</b> <ul style="list-style-type: none"><li>Email to service@tuya.com to contact customer service personnel directly</li></ul>	<b>Hotlines</b> <ul style="list-style-type: none"><li>400-881-8611 (Mainland China, Mandarin service)</li><li>1-844-672-5646 (Outside Mainland China, English service)</li></ul>
<b>Technical work orders</b> <ul style="list-style-type: none"><li>Customers login to the IoT platform to submit a technical work order, and a dedicated staff member will respond to the order</li></ul>	<b>Business contact</b> <ul style="list-style-type: none"><li>Customers may get in touch through one-to-one service with Tuya business personnel</li></ul>	

In line with the *Customer Complaint Handling Process*, and the *Customer Complaint Rating Standards*, Tuya has established and improved customer complaint handling and feedback mechanisms to respond to and solve customer complaints effectively. Moreover, we have introduced a closed-loop complaint management process, and taken rectification measures timely following the process to enhance customer services.



Tuya has implemented the multi-dimensional customer service assessment mechanism covering such indicators as complaint response efficiency, resolution rate, and service satisfaction, and conducted performance assessment at least every six months to motivate customer service employees to improve their service abilities continuously. During the reporting period, we received 33 complaints, with 100% response and resolution rates. All complaints were settled properly.

Type of complaint	Qty.	Resolution rate
Business	27	100%
Leads incubation	2	100%
Service	4	100%

Customer Service Training

Tuya has established an all-rounded and systematic training system and covered online training sessions, and pre-job and on-the-job training sessions. We are dedicated to helping all customer service employees at all development stages to improve their customer service abilities, and ensure the best customers experience.

During the reporting period  
We organized customer service training session for

50

Covering

311 employee-times



Tuya Learning Center

Training sessions regarding business policies, product capability plans, marketing policies and plans, as well as security and compliance for all employees

training sessions in 2023

16

Pre-job training for new employees

Training sessions regarding in-house rules and policies, operation platform instructions, as well as business and product expertise to help new customer service employees better understand and adapt to the corporate environment, culture, system, business and positions, improve their work quality and efficiency, and reduce mistakes and risks

training sessions in 2023

9

On-the-job training for employees

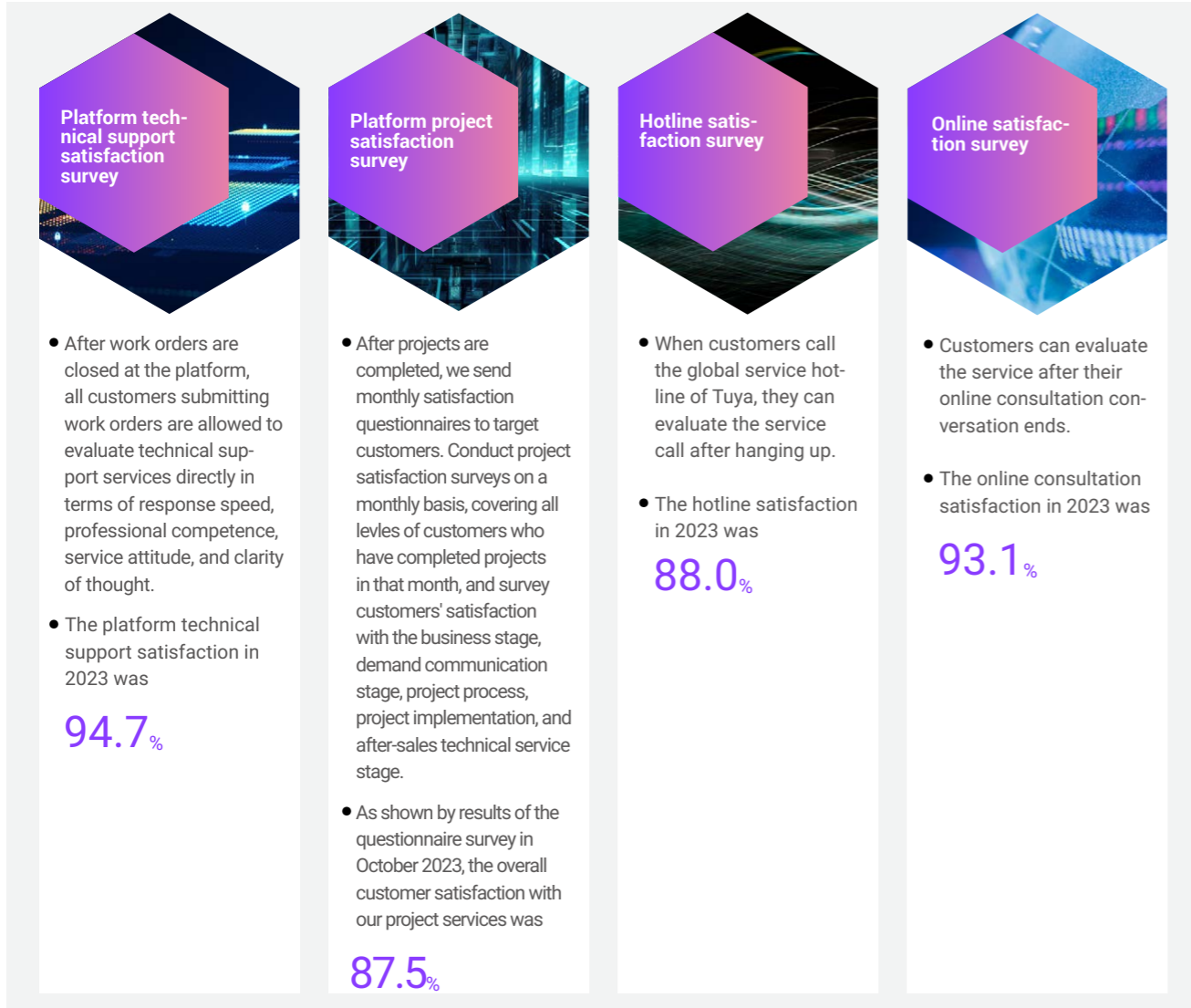
Training sessions regarding latest rules and policies, service skills, business expertise, issue response skills, and answers to common problems in work orders to improve the professional abilities of employees, and guide them adapt to the ever-changing business needs

training sessions in 2023

11

Customer Satisfaction Survey

To evaluate customer service performance scientifically and effectively, Tuya has worked out proper customer satisfaction evaluation mechanisms for different customer service platforms and customer groups. On the one side, we have introduced real-time service evaluation surveys. When technical services are closed at our platforms, customers have direct access to evaluate our performance in terms of response speed, professional competence, service attitude, and clarity of thought. On the other side, we have adopted project satisfaction surveys, and satisfaction surveys via hotlines and online forms to collect opinions and feedback over product lines and platforms from customers.



Intellectual Property

Tuya stays committed to stimulating innovation potential, deepening intellectual property management, exploring product innovation technologies, and planning and building a comprehensive intellectual property and patent protection system. In 2023, we have upgraded the intellectual protection system, and further advance our intellectual property and patent management, respecting the intellectual property rights of others while protecting our own intellectual property from infringement in an open and friendly stand.

For better intellectual property protection, Tuya observes the *Patent Law of the People's Republic of China*, and the *Trademark Law of the People's Republic of China*, and has formulated in-house intellectual property management regulations and rules, such as the *Management Regulations on intellectual property*. In 2023, we rolled out stricter and unified policies, requiring the inclusion of patents related to application scenarios in patent protection proposals. Furthermore, we raised more unified management requirements for trademark use.

When it comes to management strategies, we have conducted classified and hierarchical management of our trademarks and patents based on their importance and use frequency, thus improving the efficiency of intellectual property management. We have continued to refine the intellectual property management system from three dimensions, namely proactive prevention, active right protection, and risk management.

Prior risk assessment

Patent protection assessment

Intellectual property management system upgrade

Conduct intellectual property review in the project development process: Assess intellectual property risks if newly-approved R&D projects involve new technical solutions or changes in solutions to assess the novelty and creativity of these projects.

Follow up the new solutions proposed by project teams timely during risk assessment: Evaluate whether it is necessary to apply for patents, and remind R&D personnel to submit technical disclosures for intellectual property protection. Apply for patents to protect technical solutions at home, and even in countries and regions where there may exist risks.

Introduce a new intellectual property management system for time limit and cost management of existing patents, and management of new patent proposals.

We have continued to organize intellectual property training sessions related to intellectual property laws and regulations' propagation and implementation, identification of possible patents, and intellectual property issues in routine operations to ensure related employees have full understanding of intellectual property expertise, and avoid patents of Tuya and others from being infringed.

Training target	Main training content
R&D personnel	Identification of possible patents: key contents in application for patent protection according to Tuya's own technical characteristics and service contents
	Intellectual property risk assessment: intellectual property risks that may be encountered in the product development and marketing process
Marketing and sales employees	Handling steps and procedures for possible intellectual property issues in routine operations

Our efforts have been directed toward creating an R&D talent structure, offering incentives to boost the creative energy of R&D teams, and motivating employees to experiment and come up with new ideas. As of December 31, 2023, Tuya has obtained 572 patents in total, including 217 patents for invention, and 147 utility model patents. During the reporting period, there were no intellectual property litigation cases. Furthermore, Tuya was honored with several awards for its performance in intellectual property protection.



# Responsible Supply Chain

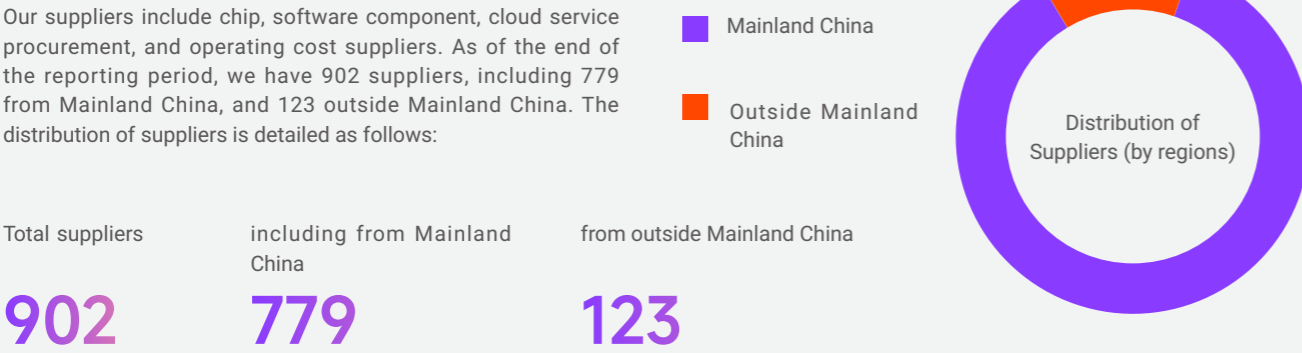
Tuya is keen to work with partners to jointly fulfill social responsibilities, and foster a healthy, stable and sustainable supply chain. Well recognizing the importance of product and service quality, and the pivotal role of the supply chain in quality, we have extended quality management to the supply chain, communicated with suppliers actively, and organized supplier training sessions to strengthen our management competence in the supply chain, and maintain a responsible supply chain.

## Supplier management

We always upgrade the supply chain management system in terms of supplier on-boarding, procurement, cooperation and assessment, offering more development opportunities for the IoT industry. Referring to the product quality management system, we manage suppliers throughout the full life cycle covering qualification verification, risk assessment, audit and supervision, and performance appraisal.

### Distribution of Suppliers

Our suppliers include chip, software component, cloud service procurement, and operating cost suppliers. As of the end of the reporting period, we have 902 suppliers, including 779 from Mainland China, and 123 outside Mainland China. The distribution of suppliers is detailed as follows:



### Supplier Management

In accordance with internal quality requirements, Tuya strictly investigates and verifies supplier qualifications in supplier on-boarding. We have formulated a series of management procedures and standards such as the *Supplier Management Procedures*, and the *New Product Introduction Control Procedures* specifying supplier on-boarding and product introduction requirements.

In addition, we have considered social indicators in supplier access, highlighting sustainable development, and integrated commercial and social responsibilities to bring positive impacts to the entire value chain.

Governance Enhancement for Long-term Development

Digital Intelligence Integration and Superior Quality

Cooperation for Mutual Benefits

Green Development and Low-carbon Operations

Contribution to Employee Development

Review of supplier qualifications —> On-site assessment of suppliers —> Business ethics agreement

Through issuing the *Supplier Questionnaire*, and collecting data from the credit investigation platform, we conduct a qualification review of suppliers in terms of quality, delivery, and operation capabilities.

We set up a professional assessment team to conduct on-site assessment of suppliers, inspecting the performance of suppliers in terms of production management, quality control, supply chain management, and environmental control according to the *Tuya Supplier Review Form*.

Suppliers which have passed the qualification review and on-site assessment will be required to sign a business ethics agreement, an environmental protection agreement and a social responsibility agreement before commencing business cooperation.

### Supplier Access Process

In 2023, we implemented stricter supplier on-boarding requirements, especially requirements of production control and quality management. Besides, we have put more efforts into termination with disqualified suppliers. During the reporting period, we eliminated 17 under-performing suppliers from our qualified supplier list. This action has enhanced the overall quality of the supply chain, and facilitated delivery of premium products to customers.

### Supplier Assessment

Tuya conducts regular performance assessments of suppliers from quality, delivery, and cost aspects during operations, and takes assessment results into account in annual performance assessments.

Every year, we develop the strategy for the annual supplier assessment plan, and implement hierarchical management of suppliers according to assessment results. During the reporting period, we assessed 1,093 suppliers in times, including 35 unqualified times, 438 qualified times, and 620 excellent times. All core suppliers received assessment. Subsequently, we guided and helped disqualified suppliers to take targeted rectification measures, and eliminated inferior suppliers which fails to meet assessment standards.

Besides, Tuya attaches great importance to the security and privacy assessment of suppliers. In line with the *Supplier Assessment Process*, we assess suppliers in light of data security and privacy protection. Depending on the characteristics of products or projects, assessments generally come with GDPR<sup>1</sup> assessment, and PIA<sup>2</sup> /DPIA<sup>3</sup> assessment. By leveraging privacy compliance assessment tools, we assess suppliers as per applicable standards. If unacceptable non-conformities are found in assessment, we will mandate suppliers concerned to take corrective actions. Otherwise, they will be excluded from our qualified supplier list.

During the reporting period, we assessed suppliers in times

1,093

Covered core suppliers

100%

Of which unqualified times

35

Qualified suppliers times

438

Excellent suppliers times

620

<sup>1</sup>GDPR: General Data Protection Regulation.

<sup>2</sup>PIA: Privacy Impact Assessment that analyzes how an entity collects, uses, shares and maintains personal identity information related to current risks.

<sup>3</sup>DPIA: Data Protection Impact Assessment that identifies and minimizes risks of personal data processing.



Supplier Empowerment

Integrating external and internal ecological resources and capabilities, we work with upstream and downstream partners to foster a collaborative innovation ecosystem featuring information sharing and value co-creation.

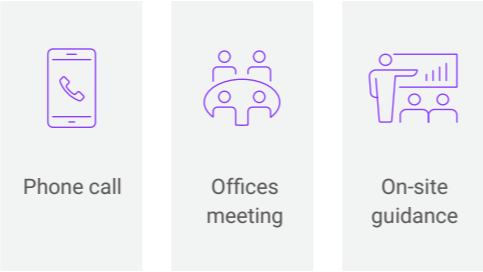
Communication with Suppliers

With a focus on communication with suppliers, we have introduced transparent and open supplier communication mechanisms to share new industry standards and trends timely, and provide necessary support for suppliers in routine operations. In 2023, we communicated with suppliers via multiple channels such as phone calls, offline meetings, and on-site guidance, promoting long-standing cooperation for mutual benefits.

Furthermore, in order to support suppliers in improving their performance in terms of responsibility and sustainability, Tuya and its suppliers hold bi-weekly meetings where we talk about topics like new product management, after-sales customer complaints, summary of exceptions, and environmental protection.

Supplier Training and Assistance

In 2023, Tuya implemented an overall quality policy for production suppliers with a primary focus on training sessions, complemented by inspections when needed, and correction aimed at weak points. Our on-site team held training sessions for production suppliers consistently to help them understand products better, and build up their management abilities. During the reporting period, we organized 56 training sessions over quality records, general standards, and quality defect prevention of various components.



Introduction of laser carving

We introduced the laser carving technology for some device models that received mass production. To apply the technology better in factories, we arranged training sessions regarding applicable specifications and requirements, and guided factories to develop procedures of connecting laser carving machines in order to strengthen traceability and fault prevention functions, and maintain consistent laser carving effect on products.

Training dedicated to shield cover suppliers

We provided shield cover suppliers with training sessions over introduction of shield covers, mainstream cover materials and processes, visual and flatness inspections, inspection standards, weldability testing, salt spray testing, and case study. The batch pass rate of shied covers increased from 96.3% in 2022 to 98.6% in 2023, a rise of 2.3%.

PCBA mass production, and production capacity improvement

We launched trial mass production of PCBA products for our new door locks in a OEM factory. For this purpose, we organized training sessions related to PCBA processes and quality requirements, assigned our professionals to tackle major process difficulties in factories, optimized on-site operations, and compiled operation guides. We saw a success in mass production of current models, with ongoing improvement in production capacity.

Green Supply Chain

Tuya is committed to promoting the green transition of the supply chain. To this end, we have established an all-rounded and mutually-collaborative supplier management system, and encouraged suppliers to practice sustainable development. We execute social responsibility and environmental protection agreements with each supplier at the on-boarding stage. In these agreements, we specify that suppliers should meet RoHS, REACH, and local environmental protection requirements, and receive regular investigations on compliance with environmental protection provisions.

At the same time, we conduct random inspections of materials provided by suppliers for their compliance with RoHS and other regulations, and hold monthly and annual quality meetings to highlight environmental protection laws and regulations. What's more, we organize system certifications for some key suppliers, and cooperate with suppliers to advance green supply chain initiatives, such as reducing packaging materials, increasing the utilization rate of recyclable boxes, and using electronic sample acknowledgments to reduce paper consumption.

# Cooperation for Mutual Benefits

## 03

We are committed to becoming a leader in the IoT era. To achieve this goal, we present broader space with more imagination and massive potential to society in the future relying on our wisdom and power. We create smart communities and bring more convenience and warmth to community life. Moreover, we devote ourselves to industry development and work with the industry to stimulate technological vitality. In an era full of IoT opportunities, we seize the opportunities and work hand in hand with the community to draw a blueprint for a warm and beautiful tomorrow.



SDGs



# Smart Community

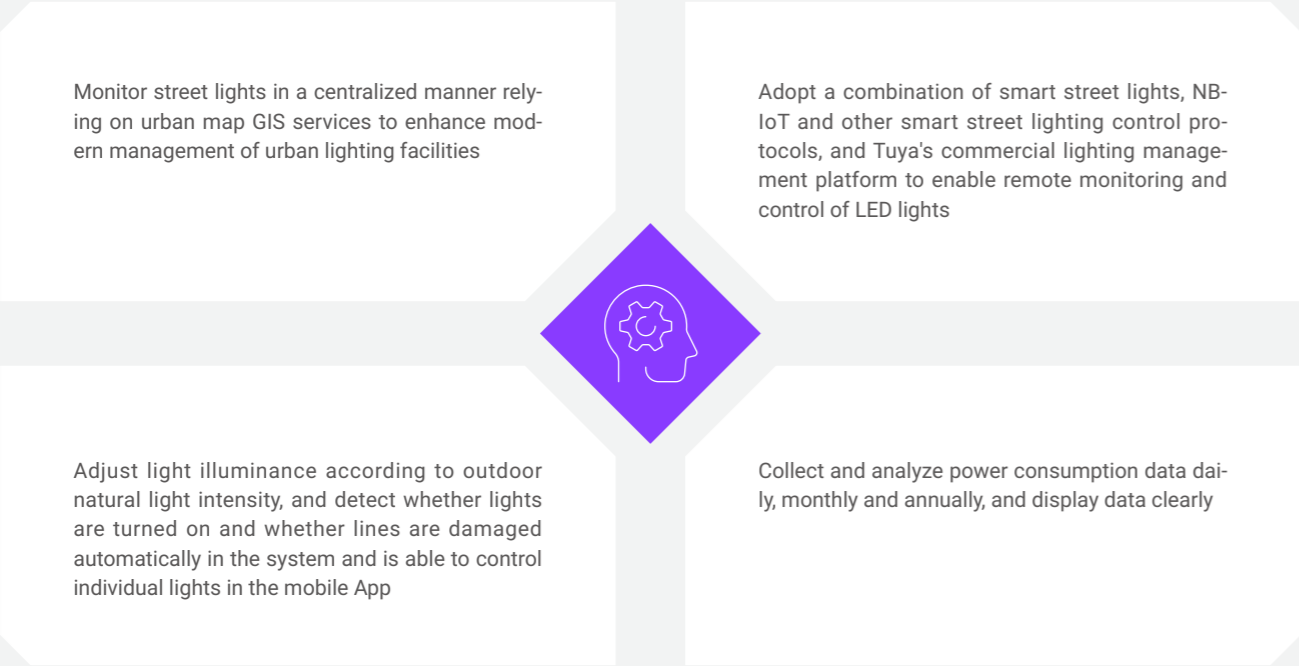
By leveraging our strong platform capabilities and varied software and hardware ecosystems, we empower communities with the strength to update their digital lives and add additional conveniences, meeting the growing investment and construction needs of smart communities. We are also committed to charity. During the reporting period, we donated RMB 0.4 million and RMB 0.5 million worth of materials respectively to Dashu Town, Chun'an County, and Seda County, Ganzi Tibetan Autonomous Prefecture for their local smart infrastructure renovation.

## Smart Energy

In order to promote the green, low-carbon and sustainable growth of society, we apply smart solutions in various energy application scenarios, such as energy consumptions in cities, hotels and parks.

For energy consumptions in cities, with the wave of “new infrastructure” , our smart street lighting solutions comes up

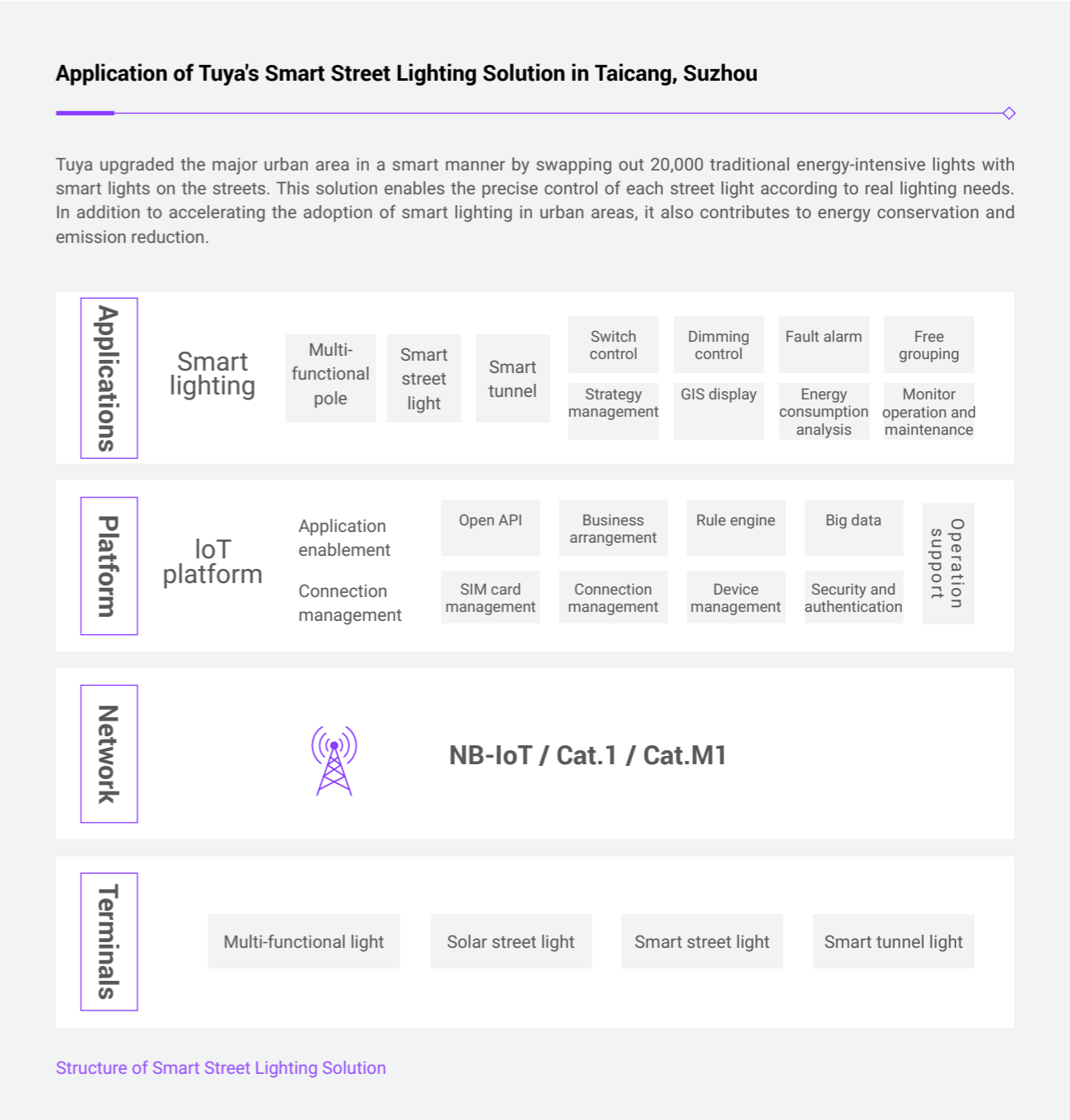
under the favorable policies of smart street lighting construction projects. Based on NB-IoT/Cat.1/Cat.M1<sup>4</sup> technologies, we have proposed the smart street lighting solution, prioritizing smart control, energy conservation and consumption reduction. This solution enables smart and proper operation of the street lighting system in cities, and cuts power consumption for municipal lighting purpose by over 30%.



Advantages of Smart Street Lighting Solution

<sup>4</sup> NB-IoT (Narrow Band Internet of Things) is a low-power wide-area network (LPWAN) radio technology standard designed to connect devices and services through cellular communication bands. Cat.1 (LTEUE-Category 1) is a category indicating the wireless performance of user terminal devices under the LTE network. Cat.M1 is a cellular technology. It is a standard for user terminal categories under the 4G communication LTE network.

Our smart street lighting solution has been adopted in the main urban area of Taicang in Suzhou, empowering our customers with efficient and fine operation management.



Regarding energy conservation in hotels, Tuya, a dominant player in this field, provided several hotels with smart power consumption solutions, upgrading their electrical facilities in a smart fashion. We equipped these hotels with smart devices including room door locks and motion sensors, and Tuya Hotel SaaS human detection software. The combination of smart devices and software works to detect whether there are guests in rooms. If no guests are detected, the smart system will turn to energy-saving mode automatically. This solution not only reduces power consumption for hotels, but also enhances the hotel experience of guests.

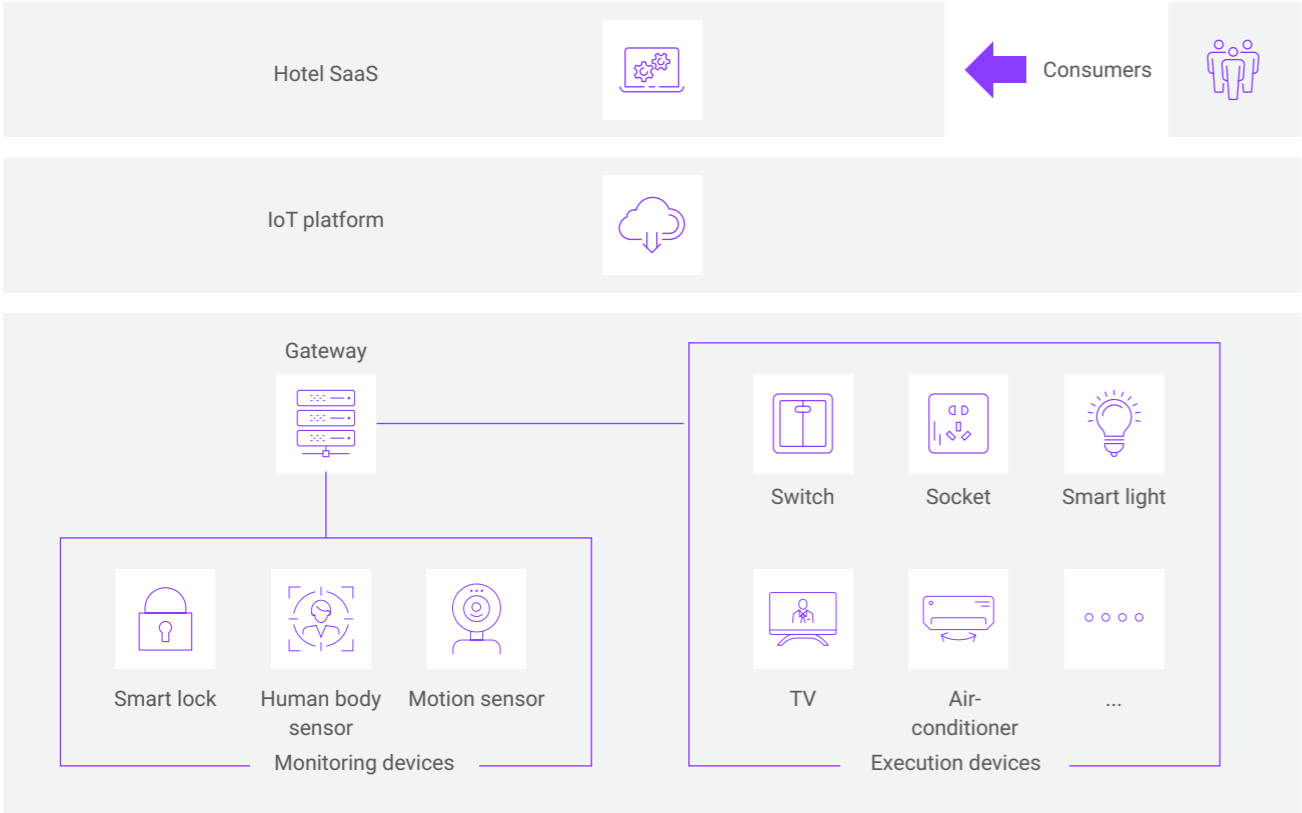


Diagram of Hotel Smart Energy Conservation System



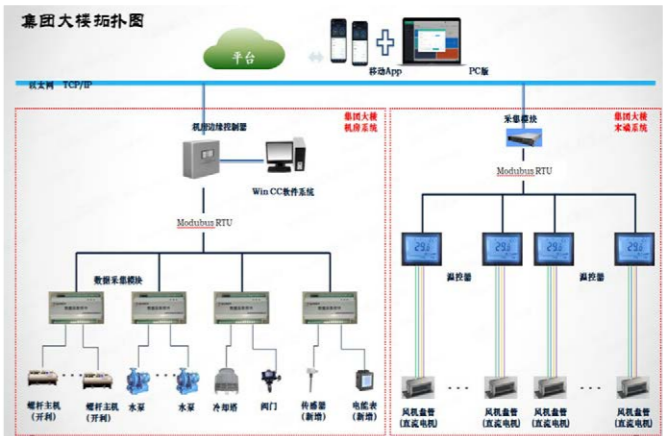
As for power conservation in industrial parks, Tuya has launched customized smart energy conservation systems allowing remote control of equipment, which will help enterprises bolster operation and energy conservation efficiency.

Application of Tuya's Smart Industrial Park Solution for Shendong Coal Group

We renovated the Shendong Office Building and the Technology Tower with multiple energy-saving facilities for the benefit of Shendong Coal Group. This smart renovation project covered digital upgrade of central air-conditioning system room, hydraulic balance adjustment, global management of equipment in the server room and terminal equipment, and energy-saving lighting in public areas. With this solution, we presented a smart industrial park to Shendong Coal Group, significantly enhancing its productivity and energy conservation effect.

Shendong Office Building

- Installed a new host control cabinet to enable remote control;
- Replaced some electrical appliances in the control cabinet to allow automatic control;
- Installed new sensors to collect energy consumption environment data;
- Adopted visual digital twin approach to save energy;
- Installed new electric energy meters to realize energy-saving management of the central air conditioning system;
- Replaced main control boards for fan coils and indoor control consoles to enable both remote and local control.



Energy Conservation System Diagram

Technology Tower

- Installed a new host control cabinet "communication gateway" to allow data communication, remote real-time monitoring and automatic control;
- Replaced some electrical appliances in the control cabinet to allow automatic control;
- Adopted visual digital twin approach to save energy;
- Installed new electric energy meters to realize energy-saving management of the central air conditioning system;
- Replaced Carrier thermostats with IoT thermostats for conventional fan coils to achieve remote control.

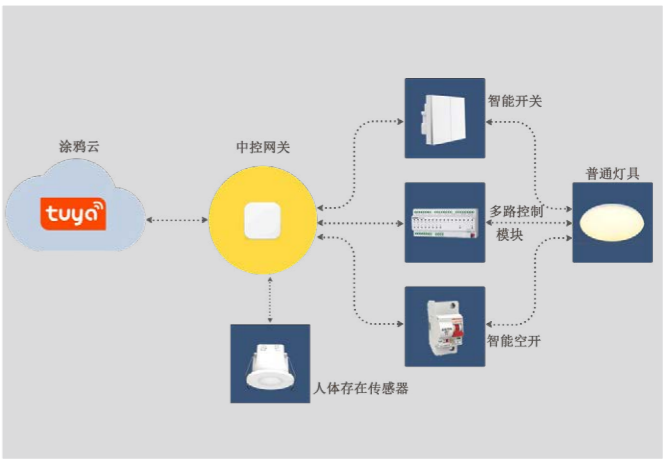


Diagram for Energy-saving Upgrade for Lighting Facilities in Public Areas

# Smart Business

As we go forward with our smart ambitions, we have identified the smart needs of offline stores, and have given them access to practical smart solutions. Considering high operation costs and low conversion rate of marketing activities, we introduce smart commercial systems to empower offline stores with fine management and digital operation.

Energy conservation and cost reduction

We design the smart commercial lighting system to help store operators cut power costs, and check daily energy consumption data effectively.

Better experience

We launch the mobile management platform to control equipment remotely, and switch among lighting and energy-saving strategies according to application scenarios, bringing pleasant shopping experience.

Easy switching

Different lighting atmosphere modes can be set depending on operation hours, and smart sensors are installed as well to adjust indoor temperature, allowing easy switching among different application modes.

Smart statistics

The combination of these smart systems and devices enhances marketing efficiency, with higher order conversion rate. In addition, we install smart sensors to collect consumer flow data, and track potential consumers for stores.

Visual operation

We enable effective management of energy consumption data. The system collects and analyzes consumer preference data automatically to figure out consumer preferences accurately.

Advantages of Smart Business System

## Tuya assists Arramr in building Bosideng smart concept stores

We helped Arramr upgrade several Bosideng concept stores featuring a touch of science and technology. According to the interior design of Bosideng stores, we assisted Arramr in proposing smart lighting solutions. These solutions allow switching among different lighting effects depending on display layout and scenario needs in stores, and work with the smart audio control system to play music properly, immersing consumers in various atmosphere modes pleasantly.



# Smart Platform

Tuya has actively researched and developed smart platforms. We have cooperated with many customers to develop information systems in the areas of energy and environmental conservation as an effort to foster the integration of smart initiatives with green and energy-saving projects, and drive a more sustainable future.

We are collaborating with NAHUI New Energy to develop household smart energy management devices and platforms. We will make joint efforts with our global peers to present household users with smart energy management systems combining both solar energy storage and smart home appliances, and drive the new energy and IoT sectors to embark on rapid expansion.

## Cooperation between Tuya and NAHUI to Develop the Household Smart Energy Management Platforms

We have established partnership with Haier's NAHUI to jointly develop smart devices such as smart heat pumps and sockets, household smart energy management platforms such as the environment management system (EMS) backstage, and user and operator Apps. In addition, we have also collaborated to integrate Tuya smart communication products in household energy management systems. With cooperation, we aim to provide "one stop" energy management services covering devices, control software and project construction to household users, and enable real-time visual management of "solar energy generation, storage and consumption" to empower household users with smarter and more efficient energy management, which drives the global promotion of our smart home energy management systems.



Signing Ceremony for Cooperation between Tuya and NAHUI

# Industry Development

We communicate and cooperate with peers within the industry to inspire boundless possibilities, and drive scientific and technological innovation. We continue to promote industry development, and make fresh and consistent progress amid the surge of the IoT industry.

## Communication with Peers

We actively communicate with peers. During the reporting period, we hosted 5 developer summits in Shenzhen, Zhongshan, Suzhou, Hong Kong and Singapore. These summits enabled top developers from different sectors to communicate with their counterparts over IoT technology, business and project implementation, and facilitated commercial cooperation, strengthening their power of products.



Exhibition Hall of Tuya Developer Summit (Zhongshan)



Tuya Developer Summit (Singapore)

# Cooperation with Peers

We work together with peers over multiple fronts to jointly explore market potential from the perspective of globalization. During the reporting period, Tuya, Amazon and Google organized two offline marketing activities cooperatively. Besides, as a board member of the Cloud Security Alliance (CSA), we continued to engage in Matter standard formulation and promotion, and promoted marketing activities of Wi-Fi and bluetooth alliances.

## Tuya's Engagement in Matter Standard Preparation and Application

During the reporting period, Tuya, a devoted Matter member and supporter, participate in the promotion of Matter1.0 standard release Tuya has actively promoted the development, design, testing, and validation of Matter requirements and specifications in order to meet the needs of global customers and peers for Matter development and application, as well as to facilitate the widespread adoption and use of Matter standards. Tuya has done this by leveraging its advantages in technology and experience.

In 2023, Tuya also attained Matter certificates for over 100 electrical, lighting, gateway, and sensing products, including sports sensors and contact-type sensors. Matter curtain motor samples were about to receive lab testing for certification. Tuya will keep expanding its Matter smart household product options together with global developers.

Tuya actively undertake the responsibility for scaling up cyberspace governance by attending industry events and sharing its ideas, thanks to its good cyber security and compliance practices and achievements. We hope to leverage our experience in data security and privacy protection and empowers customers and partners with better security capabilities, and work together with global developers to foster a safe and stable cyberspace.

## Tuya's Presence at A High-level Cyber Security Forum

During the reporting period, Tuya, as the only Chinese company, was invited to attend a high-level cyber security forum in Washington, U.S. hosted by the Research Center for Global Cyberspace Governance (RCGCG) with the aim of conversing with cyber security experts and enterprise representatives regarding global cyberspace specifications, and challenges and opportunities in the context of emerging technological advances. At the forum, Tuya shared network security prevention strategies and technical case practices, and thoughts about how to better implement IoT security and data compliance governance from an enterprise perspective. Our insights were widely acknowledged by the authoritative organs and well-known experts within the industry, and were picked up by famous media such as Associated Press, Financial Times, Globe and Mail, and Yahoo Finance.



Speech Delivered by Tuya at AWS Reinforce Security Conference



Tuya's Presence at IDC & Palo Alto Private Forum, and Sharing of Insights

# Green Development, Low-carbon Operations

## 04

We have been committed to contributing to environmental protection since we understand its fundamental significance in promoting sustainability. To accomplish this goal, we have actively promoted a green office environment where all employees are encouraged to work in green manner. Also, we make effective use of energy and resources to promote environmentally-friendly operations. Moreover, we continue to reinforce the identification and control of environment risks, especially identification and response to climate change-related risks. Apart from exploring green technologies, we have launched environmental protection initiatives from all fronts to play our part in contributing to a sustainable future.

SDGs



# Environmental Management

We strictly observe applicable laws and regulations including the *Environmental Protection Law of the People's Republic of China*, the *Emergency Response Law of the People's Republic of China*, and the *Energy Conservation Law of the People's Republic of China*. In accordance with these laws and regulations, we have formulated management systems and operational specifications such as the *Enterprise Environmental Policy*, the *Rules for Waste Management*, and the *Energy Saving and Consumption Reduction Control Procedures*, outlining environmental management procedures and operation specifications. We are devoted to establishing an effective environmental management system. Hence, we have set up the Safety and Environmental Protection Team that is responsible for internally environmental management

together with the Administrative Department. Until the end of the reporting period, there were no environmental violations.


We urge employees to attend environmental protection training in order to increase their awareness of environmental protection. In line with national laws and regulations of environmental protection, our environmental management system, and internal environmental protection regulations, we have arranged training activities in various forms, asked employees at environmental protection posts to receive training sessions regularly, and taken their training results into account in performance assessments, to ensure effective environmental protection.

# Climate Change

Climate change has given rise to additional issues and challenges facing humanity, and our planet may see significant climate change in the future. To combat climate change, leaders of all countries signed the *Paris Agreement* in 2015, committing to jointly keeping global temperatures in this century to below 2 °C above pre-industrial

times. As a responsible enterprise, Tuya has strictly reduced carbon emissions in line with the *Paris Agreement*, and integrated adaptation to climate change-related risks into its environmental management strategies, fulfilling its corporate responsibility.

Stressing climate change governance, we have continued to refine our climate change management system, and set carbon emission targets.



Carbon emission targets

- Gradually build the carbon emission management system
- Strengthen the publicity and implementation of low-carbon awareness among employees
- Deeply cultivate low-carbon technology and develop smart products



With reference to the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and taking full consideration of our operations, industrial and geographical factors, we initially identified various climate change-related risks and formulated measures to address the risks brought by climate change.

Risk type	Item	Risk description	Countermeasures
Transition risk	Policies and laws	Given the increasingly stringent government carbon emission-related policies, laws and regulations, coupled with the development of a national emission trading scheme, higher carbon pricing will lead to higher operating costs for businesses	Timely grasp the latest requirements of relevant regulations and further improve the Company's environmental management system and information disclosure quality to ensure compliance with increasingly stringent laws and regulations; actively promote energy saving and consumption reduction projects to reduce the Company's greenhouse gas emissions
	Technology	As the requirements for various low-carbon environmental protection technologies and solutions are constantly increasing, enterprises will need to increase investment in research and development	Actively adjust the green development strategy, accelerate low-carbon research and technological innovation, analyze the suitability of new technologies or solutions with Tuya's business, and conduct a comprehensive evaluation of its investment
	Market	Consumer preference gradually shift towards products and services with low carbon footprint	Pay attention to market dynamics, analyze market environment trends in real time, and maintain the low-carbon characteristics of products, services, and solutions consistent with customer needs
Physical risk	Acute	Extreme weather (rainstorm, cyclone, heavy snow, flood, extreme heat, extreme cold, etc.)	Comprehensively analyze and summarize the experience of cyclone and flood control over the years, and improve various emergency plans and early warning systems to deal with natural disasters such as cyclone and rainstorm
	Chronic	Rising average temperature increases energy consumption in data center during summer	Pay close attention to temperature change and projections, promptly assess the impact on their business and take action accordingly, such as expanding the use of renewable energy

Total GHG emissions in 2023

1,367.56 tons of carbon dioxide equivalent

GHG emissions per unit of operating revenue in 2023


5.95 tons of carbon dioxide equivalent / million U.S. dollar

# Green Practices

We uphold green and environmentally-friendly concepts in our energy, resource and waste management, call on green and low-carbon office among employees, and encourage them to contribute to the sustainable development of the Company and society in all respects.

## Energy Management

We strictly abide by the *Energy Conservation Law of the People's Republic of China*, and have formulated the *Control Procedures for Energy Conservation and Consumption Reduction*, to promote effective use of energy. Moreover, we have proactively set and regularly reviewed energy management targets, and tracked the fulfillment of targets.



Energy management targets

- Gradually build the comprehensive energy management system
- Pursue green design and adopt energy-saving equipment
- Explore the opportunities of renewable energy development

In the course of daily operations, our major energy source is purchased electricity. We have adopted self-developed commercial lighting IoT control system - Smart Commercial Lighting Solution to enhance our energy management efficiency as an effort to achieve energy management targets.

Smart lights	Trigger the energy-saving mode, and turn off unnecessary lights at night.
Air conditioners	The temperature of air conditioners is controlled between 24°C and 26°C , and air conditioners are turned on alternately to ensure that the internal power consumption of the enterprise is within the reasonable range as required by environmental protection regulations.
Meeting system	Switch to the energy-saving mode automatically if there is no meeting within 5 minutes.
TV power supply	Encourage employees to turn off the TV power supply timely after the meeting is over, and check whether there is any power supply that is not turned off after work to reduce energy consumption.
Green travel	Encourage employees to take public transportation or take carpools on short-distance business trips or when commuting to and from work.

### Energy Conservation Measures

Energy consumption in 2023


2,399.22 MW·h

Energy consumption intensity in 2023

10.43 MW·h / million U.S. dollar

Resource Management

Tuya strictly abides by the *Water Law of the People's Republic of China* and other applicable laws and regulations of the places where it operates, and enhance the water conservation awareness of employees by posting water conservation slogans in public areas. Furthermore, we have set water conservation targets, record water consumption monthly, and identify water waste cases timely to increase water conservation efficiency.



Water resource management targets

- Improve the utilization rate of water resources
- Actively adopt water-saving devices
- Strengthen the publicity and implementation of water conservation awareness among employees

Our major water source is municipal water supply. We have installed equipment and facilities such as automatic sensor faucets and flushers to prevent water waste, and enhance efficient use of water.

To save paper resources, we strive for green office. To be specific, we have rolled out a paperless office by encouraging online

preparation and access of documents. In addition, we have reduced the consumption of disposable paper cups, and advocate paper re-utilization to minimize potential impact of paper consumables on the environment. Given our business nature, we almost do not need packaging materials, and the quantity of packaging materials for our samples and their impact on the environment are insignificant.



Paper Conservation Slogans Nearby Printers



Water Conservation Slogans in the Office Area

Water consumption in 2023


3,148<sup>m³</sup>

Water consumption per unit of operating revenue in 2023

13.69<sup>m³ / million U.S. dollar</sup>

Waste Discharge Management

We strictly observe applicable laws and regulations in the places where we operate, such as the *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste*, and have introduced internal *Waste Management Regulations*, regulating pollutant discharge management strictly. Also, we have set waste management targets, and redoubled efforts to reduce wastes generated.



Waste management targets

- Increase the recycling rate of recyclable wastes
- Promote paperless office
- Reduce the use of packaging bags in the office area

Given the nature of our business, we do not produce waste gas. Our main source of waste water is domestic sewage. Wastes generated mainly include office waste, waste materials and equipment. These wastes are separated. Recyclable wastes are subject to recycling management and records filing. For non-recyclable wastes and hazardous wastes, relevant qualified service providers are employed to dispose of them

in accordance with laws. We actively support waste recycling. Employees are encouraged to return used batteries to the reception to receive new ones, reduce the harmful effects of waste batteries on the environment.

Recyclable wastes

- Recycle wastes in designated places.
- Store wastes in the warehouse, and contact the recycling company to recycle them by the Administrative Department when they reach a certain amount.
- Take records properly by the Administrative Department after recycling, and prepare monthly and annual recycling statistical forms.

Non-recyclable wastes

- Put all non-recycle wastes into trash cans.
- Contact the outsourced cleaning company to collect and clean by the Administrative Department.
- Hand them over to the property management company for centralized disposal.

Gross wastewater discharge in 2023

2,833<sup>m³</sup>

Gross non-hazardous waste discharge in 2023

50.40<sup>tons</sup>

Gross hazardous waste discharge in 2023

0.08<sup>tons</sup>

# Contribution to Employee Development 05

Recognizing the "people-oriented" talent concept, we keep improving the human resource management system, provide an environment for the employees to grow and develop and promote a workplace in which employees grow together with the Company. We are committed to protecting rights and interests of employees, and cultivating talent teams that are innovative, vigorous and robust.



## SDGs



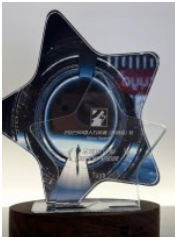
# Diverse Workplace

As talents are the greatest asset, and the source of innovation vitality for a company, we attach great importance to introduction of talents, and protection of their rights and interests. Therefore, we are intensifying efforts to upgrade the human resource system, foster a diverse and equal workplace, and implement talent-related rules and policies to attract talents for the purpose of our ongoing operations.

## Talent Attraction

We strictly abide by applicable laws and regulations in the places where we operate, such as the *Labor Law of the People's Republic of China*, and the *Labor Contract Law of the People's Republic of China*, and employment of staff in accordance with international conventions such as the *International Labor Convention*, and the *Declaration of Human Rights*. In line with these documents, we have formulated the *Tuya Recruitment Management Policy*, and the *Basic Human Resources Policy*, outlining clear policies and guidelines for human resource management.

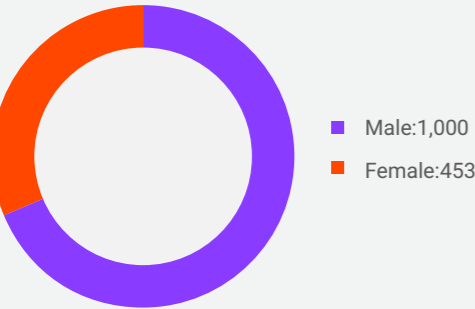
Taking the business development direction and human resource needs into account, Tuya actively attracts talents with a variety of features and backgrounds globally to form diverse talent teams. According to job descriptions and multi-layer talent structure development needs, we keep expanding talent introduction channels, including experienced hire, campus hire and internal transfer.



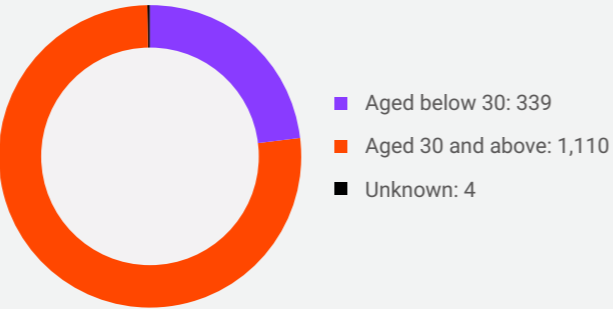
Thanks to our well-established employment system and standard-based human resource management, we have received extensive recognition in this field. In 2023, Tuya was granted the "China Human Resource Sirius Award - Best Employer Brand for Global Companies".

As of the end of the reporting period, Tuya has 1,453<sup>5</sup> full time employees in total, including 37 from ethnic minorities. The classification of our full-time employees is detailed as follows:

Number of full-time employees by gender

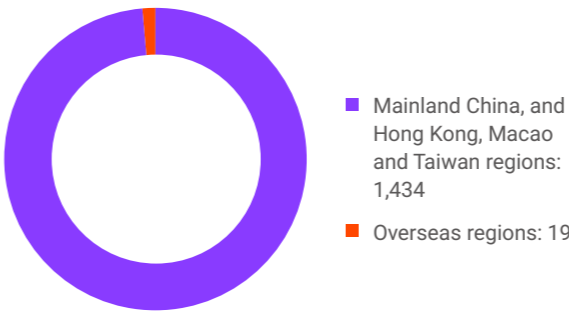


Number of full-time employees by age<sup>6</sup>

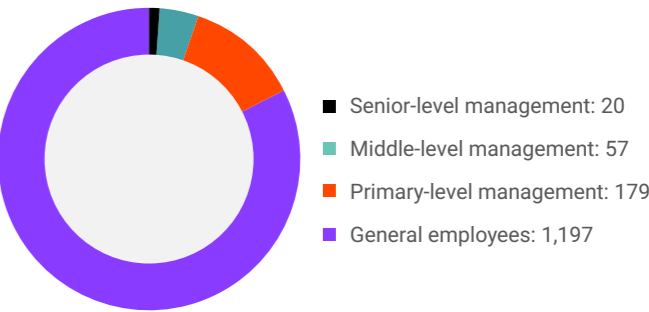


<sup>5</sup>The calculating way of the number of total employees is not same as the number of employees paid in the annual report.  
<sup>6</sup>Tuya fully respects and protects the right of employees to maintain their personal privacy. So, the data classified by age includes some employees who are not willing to disclose their age.

Number of full-time employees by regions



Number of full-time employees by rank



## Rights and Interests of Employees

Tuya always practices the principle of compliant employment, observes the *Labor Law of the People's Republic of China* in employment. And we have developed internal labor management rules and policies, such as the *Employee Handbook*, and the *Basic Human Resources Policy*, specifying compensation, dismissal, recruitment, promotion, working hours, holidays, equal opportunities, diversity, and anti-discrimination. Tuya actively fosters a healthy, equal and inclusive workplace. In such workplace, we prohibit child labor, forced labor, discrimination and harassment to protect the rights and interests of all employees.

### No child labor and forced labor

Tuya strictly checks whether candidates provide true and effective identity documents during recruitment and employment as an effort to prevent child labor. We implement a standard work system and forbid any forced labor.

If illegal employment is found, the Company will hold violators accountable in accordance with the law. During the reporting period, there was neither child labor nor forced labor.

### No discrimination and harassment

In the Employee Handbook, Tuya prohibits discrimination and unfair treatment of employees on the ground of ethnicity, age, gender, race, nationality, marriage, health status, and religion.

We firmly oppose workplace harassment in any forms, including but not limited to offend, abuse, sexism or racism, and sexual harassment.

### Diversity and equality

Adhering to diversity and inclusion, Tuya pays attention to and protects the rights and interests of minority groups. For example, we ensure social security payment to disabled employees every month, and reimburse the certification fees for foreign employees working in China.

Following the principles of justice and equity we implement recruitment, employment, training, promotion and compensation policies in an open and transparent manner to ensure all employees receive equal pay for equal work, and enjoy equal competitive opportunities.

# Development and Cultivation

Recognizing that high-quality development of talents is the driving force of sustainable corporate development, we are committed to establishing an all-rounded and multi-dimensional training system, and providing employees with clear career development paths and sufficient space for growth to enhance their abilities and arouse their potential, and fully support employees. Employees are fully encouraged to improve and go beyond themselves, and make achievements.

## Training and Education

Leveraging talent training and education, Tuya integrates internal and external learning resources to stimulate the potential of employees continuously. In accordance with the Training Management Policy, we have established a training system dedicated to all ranks, positions, and development prospects building on our Tuya Academy online learning platform. According to our ongoing follow-up of training needs, and employees' expectations of access to corporate core value, and better management capabilities and professional skills, we have launched training courses throughout the career development stages of employees. During the reporting period, the Tuya Academy updated 66 courses, and covered 650 topics such as product training, security and compliance, leadership, personal development, and technology. This platform received 32,146 training participants.

### New employee training

We continue to carry out new employee training programs to help new employees, including fresh graduates, get familiar with our business and quickly fit into the workplace. As of the end of the reporting period, we have cumulatively trained over 3,000 new employees.

### Leadership training

To create a team of managers with outstanding leadership skills. We organize training sessions over necessary skills of managers such as daily communication, team building, performance management, recruitment and dismissal skills to strengthen the team awareness and leadership strength of our managers.

### Professional competence training

Tuya has developed customized professional competence training courses for sales, R&D, and technical employees, such as "Star Program", and Tuya Matter training program, to help employees fully understand business strategies, and improve professional skills.

Tuya Featured Training Programs



Governance Enhancement for Long-term Development

Digital Intelligence Integration and Superior Quality

Cooperation for Mutual Benefits

Green Development and Low-carbon Operations

Contribution to Employee Development



### New employee training program

During the reporting period, we set up training courses regarding corporate culture, business model, business experience, compliance and security regulations in various forms and sessions with a sense of ceremony. 50 new employees completed training, and fit into their work teams effectively.



### Sales personnel training

During the reporting period, we provided sales personnel with training sessions over the latest business developments and marketing capabilities. In these training sessions including 6 English sales training sessions, we shared 10 the up-to-date products and solutions with 332 participants in terms of our three core business sectors, namely retail brands, smart business, and industry private cloud.

Tuya emphasizes internal precipitation of learning and education resources, and provides all employees with an e-learning platform – the Tuya Academy. We have released a variety of high-quality training courses covering leadership, team management, personal development, products, technologies, and security and compliance on the platform to give employees access to professional and management expertise and skills.

During the reporting period

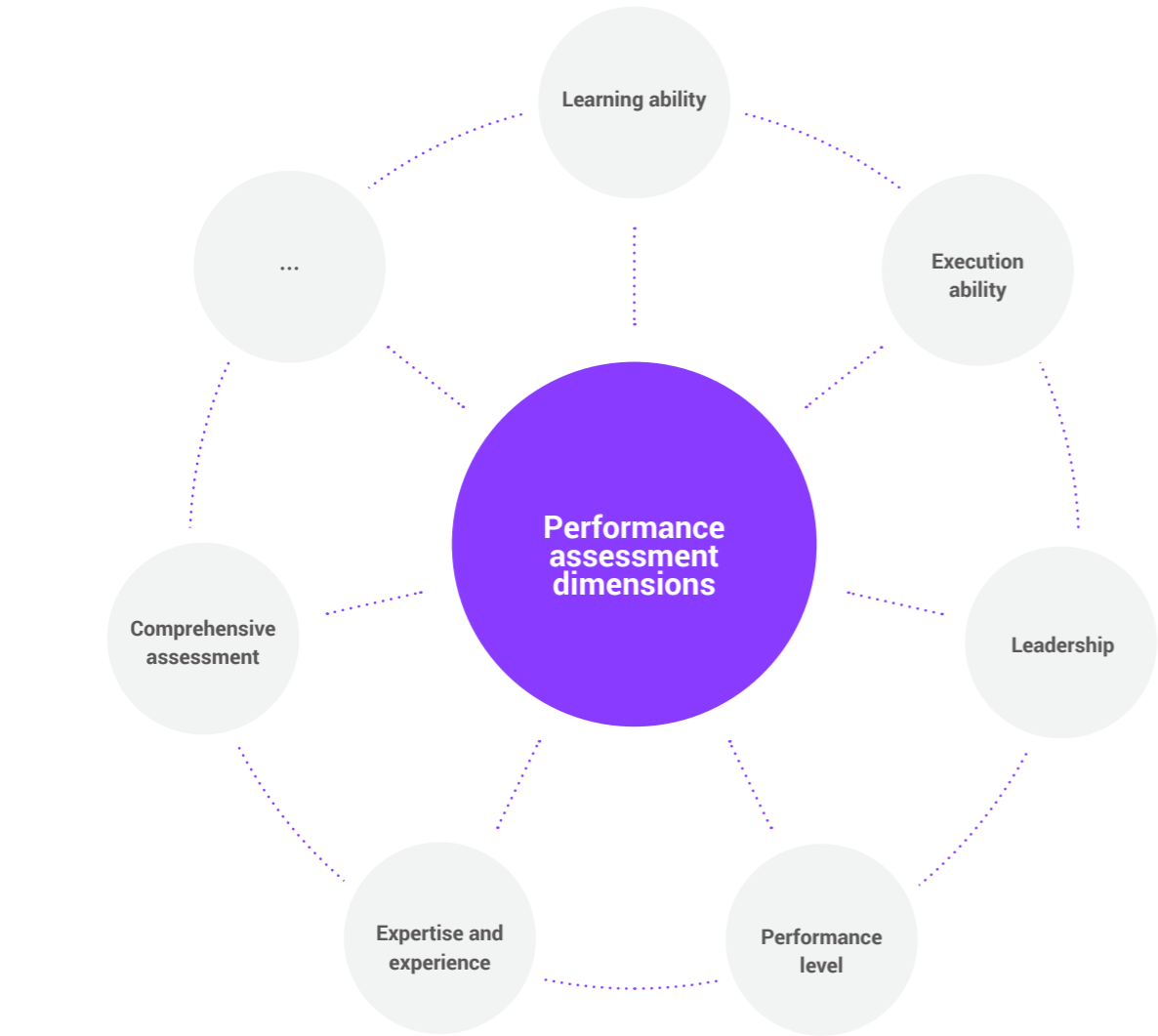
We saw **6,500** participants in various training sessions

training coverage rate achieved **94.4%**

# Performance Management

In line with the *Rules for Performance Management*, Tuya implements open, transparent, standard-based and clear performance management. During the reporting period, we conducted a performance system reform. In the reform, we conducted assessment every six months, and comprehensively consider employees' efforts and work results, enhancing performance assessment efficiency and quality.

We pursue a scientific and reasonable performance assessment mechanism. We consider self-assessments of employees, and feedback from their superiors when assessing the performance of employees from various dimensions to ensure assessment accuracy and objectivity. Moreover, we inform employees of performance assessment results timely, and help them analyze these results and figure out improvement actions to facilitate their self-improvement and persistent growth.



Performance Assessment Dimensions

Tuya presents multiple career development options to employees, and allows smooth transfer among different positions within the Company in accordance with applicable rules, to sufficiently motivate their enthusiasm and maximize the value of positions. Following fair competition and person-position matching principles, we offer promotion and transfer channels, and select talents openly and fairly by considering performance assessment results and personal competence.

# Compensation and Benefits

In accordance with the *Rules for Remuneration Management*, Tuya has established a competitive and comprehensive compensation incentive system to attract and retain talents. To stimulate the innovation vitality of employees and enhance their organizational commitment, we have set up equity-based incentives to share Tuya's development fruits with key employees that make significant contributions to the Company.

Fixed remuneration	The basic remuneration of employees is formulated according to the position value, employee ability, employee performance and market remuneration level
Annual performance bonus	Determined after taking into account the Company's operating conditions, departmental performance and individual employee performance
Special bonus	Including internal referral bonus, bonus for training provider and rewards for patent application
Excellent project bonus	Distributed to the employees participated in excellent projects

Remuneration Incentive Mechanism

In accordance with applicable laws and regulations in the places where we operate, such as the *Social Insurance Law of the People's Republic of China*, we purchase basic insurance for all employees. Besides, we have continued to maintain and expand benefits, including basic benefit packaging covering five insurances and one housing fund, holiday benefits, trip allowances, and housing subsidies, and full-pay leave package encompassing maternity leave, paternity leave, parental leave, and single child care leave. To meet personalized needs of employees, we introduce the flexible work schedule, offer exclusive taxi and hotel discounts to employees from time to time, and launch special benefit items for different employee groups at different time periods in order to provide flexible and diverse benefits for employees.

Female employees	Fresh graduates	Employees on overseas business trip	Foreign employees working in China	Employees working overseas
Set up the nursery room in the workplace, and provide medical beauty discount, and lectures for female employees during pregnancy	Housing allowance	Purchase overseas travel insurance for employees to protect their health and safety during travel	Provide foreign employees working in Mainland China with subsidies and access to favorable tax policies	Purchase dental and other supplementary medical insurances for employees working in some countries/regions

Tuya's Multi-level Welfare System

# Health and Safety

Cherishing the efforts of each employee, as a responsible enterprise, we are committed to delivering caring and warmth to employees by improving our remuneration and benefit system to increase their sense of gain and accomplishment. Additionally, we have made efforts to ensure the health and safety of employees, refine two-way communication mechanisms, and organize a variety of exciting after-work activities to enhance team cohesion and centripetal force.

## Health and Safety

Taking the health and safety of employees as a top priority, we strictly observe applicable laws and regulations in the places where we operate, such as the *Work Safety Law of the People's Republic of China* and the *Fire Control Law of the People's Republic of China* to establish and maintain a safe workplace. Also, we pay close attention to the physical and psychological health of employees by providing necessary health guidance to guarantee their occupational health and safety<sup>7</sup>.

Tuya provides all employees with annual examination and commercial insurance, and invites doctors from third-party agencies to answer questions on items in the medical examination reports raised by employees in order to remind employees to prioritize and manage their health. Moreover, we have purchased work injury insurance for employees, and established work injury handling and certification procedures to safeguard all rights and interests of employees during work injury.

### Safe workplace

Arrange AED defibrillators in the workplace to respond to emergencies

### Mental health training

Provide mental health training for the Human Resources Department to help the department offer psychological counseling to employees in a more professional way

### Health expertise publicity

Regularly organize health lectures and free clinic activities to guide employees to pay attention to their physical health, such as inviting external institutions to perform on-site free diagnosis and treatment, organizing Pilates exercises, and holding shoulder and neck knowledge lectures

### Safety drill

Regularly organize fire drills for all employees to strengthen their safety awareness and improve their self-rescue abilities in case of an emergency

Employee Health and Safety Initiatives

## Communication with Employees

To approach employees honestly, we listen to the voice of employees, respect their opinions, and advocate freedom of expression and association. We work with employees to foster a democratic, harmonious and equal workplace. To understand the feedback and requests of employees timely, we open up multiple online and offline communication channels. With these efforts, we pursue mutual trust, benefits, and ongoing growth together with employees.

Our employees are allowed to propose suggestions via the congress of workers and staff. During the reporting period, the congress discussed the current management policies of the Company, and identified areas for improvement according to business development needs, contributing to the revision of these policies in the future.

<sup>7</sup> During the reporting period, we lost 65 workdays due to work injury. And there were no death cases due to work injury in the past three years.

### Online communication channels

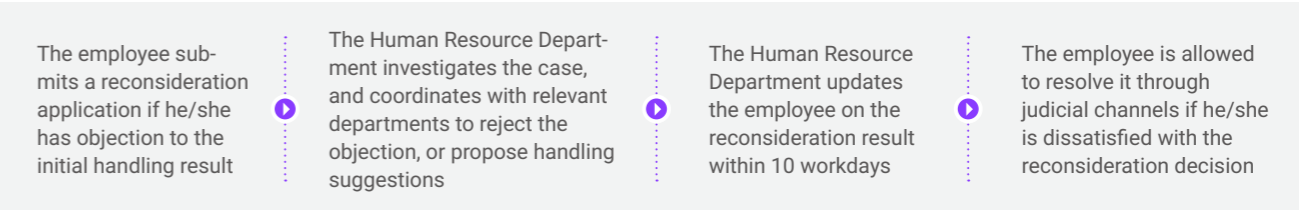
**Company's WeChat official account:** Voice of Tuya  
**Company's WeChat HR channel:** T Mei  
**Column on the WeChat official account:** "You Yi Shuo Yi"  
**Public email:** voice@tuya.com

### Offline communication channels

**HR interview:** daily communication and interview with the Human Resource Department  
**"Free Talk" seminar:** exchange with core employees  
**Strategic communication with executives:** business and technical leaders regularly discuss strategic directions, and report implementation progress

### Tuya's Major Employee Communication Channels

In the *Basic Human Resources Policy*, it is specified that employees have the right to report violations of laws and regulations, and other misconducts in real name or anonymously. Then, the Company will investigate these reported cases according to the reporting acceptance and handling procedures. Besides, employees are allowed to apply for reconsideration of human resource management disputes through the internal appeal process, and the Human Resource Department will coordinate with relevant departments to settle these disputes.



Employee Appeal and Reconsideration Procedures

Advocating work-life balance, Tuya strives to foster a warm and harmonious workplace by organizing various employee care activities. We encourage employees to develop hobbies by sponsoring employee club activities to relieve work stress and relax themselves.



Club Activity



Tuya's 9th Anniversary



Wormwood Bouquet DIY at the Dragon Boat Festival



Customized Gifts on the Programmers' Day

Appendix I: Hong Kong Stock Exchange ESG Contents Index

Environmental, Social and Governance Areas, General Disclosures and Key Performance Indicators (KPI)			Location (Section)
Environmental			
A1:Emissions	General Disclosure	Information on:the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer	Green Development and Low-carbon Operations
	A1.1	The types of emissions and respective emissions data	Green Development and Low-carbon Operations - Climate Change
	A1.2	Amount and density of greenhouse gas emissions	Green Development and Low-carbon Operations - Climate Change
	A1.3	Hazardous waste amount and density generated	Green Development and Low-carbon Operations - Waste Discharge Management
	A1.4	Non-hazardous waste amount and density generated	Green Development and Low-carbon Operations - Waste Discharge Management
	A1.5	Describe the emission targets set and the steps taken to achieve them	Green Development and Low-carbon Operations - Climate Change
	A1.6	Describe methods for handling hazardous and non-hazardous waste and describe waste reduction targets and steps taken to achieve them	Green Development and Low-carbon Operations - Waste Discharge Management
A2:Use of Resources	General Disclosure	Policies for the efficient use of resources (including energy, water and other raw materials)	Green Development and Low-carbon Operations - Resource Management
	A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total and intensity	Green Development and Low-carbon Operations - Energy Management
	A2.2	Water consumption in total and intensity	Green Development and Low-carbon Operations - Resource Management
	A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them	Green Development and Low-carbon Operations - Energy Management
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them	Green Development and Low-carbon Operations - Resource Management
	A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced	Green Development and Low-carbon Operations - Resource Management
A3:The Environment and Natural Resources	General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources	Green Development and Low-carbon Operations - Environmental Management
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	Green Development and Low-carbon Operations - Green Practices
A4:Climate Change	General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer	Green Development and Low-carbon Operations - Climate Change
	A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them	Green Development and Low-carbon Operations - Climate Change
Social			
B1: Employment	General Disclosure	Information on:the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare	Contribution to Employee Development
	B1.1	Total workforce by gender, employment type age group and geographical region	Contribution to Employee Development - Talent Attraction
	B1.2	Employee turnover rate by gender, age group and geographical region	Appendix II: ESG Performance

Environmental, Social and Governance Areas, General Disclosures and Key Performance Indicators (KPI)			Location (Section)
B2:Health and Safety	General Disclosure	Information on:the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees fromoccupational hazards	Contribution to Employee Development - Health and Safety
	B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year	Contribution to Employee Development - Health and Safety
	B2.2	Lost days due to work injury	Contribution to Employee Development - Health and Safety
	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored	Contribution to Employee Development - Health and Safety
B3:Development and Training	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities	Contribution to Employee Development - Development and training
	B3.1	The percentage of employees trained by gender and employee category	Appendix II: ESG Performance
	B3.2	The average training hours completed per employee by gender and employee category	Appendix II: ESG Performance
B4:Labour Standards	General Disclosure	the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Contribution to Employee Development - Rights and Interests of Employees
	B4.1	Description of measures to review employment practices to avoid child and forced labour	Contribution to Employee Development - Rights and Interests of Employees
	B4.2	Description of steps taken to eliminate such practices when discovered	Contribution to Employee Development - Rights and Interests of Employees
B5:Supply Chain Management	General Disclosure	Policies on managing environmental and social risks of the supply chain	Digital Intelligence Integration and Superior Quality - Responsible Supply Chain
	B5.1	Number of suppliers by geographical region	Digital Intelligence Integration and Superior Quality - Responsible Supply Chain
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored	Digital Intelligence Integration and Superior Quality - Responsible Supply Chain
	B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored	Digital Intelligence Integration and Superior Quality - Responsible Supply Chain
	B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored	Digital Intelligence Integration and Superior Quality - Responsible Supply Chain
B6:Product Responsibility	General Disclosure	the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress	Digital Intelligence Integration and Superior Quality - Responsible Marketing
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Digital Intelligence Integration and Superior Quality - Quality Assurance
	B6.2	Number of products and service related complaints received and how they are dealt with	Digital Intelligence Integration and Superior Quality - Customer Service
	B6.3	Description of practices relating to observing and protecting intellectual property rights	Digital Intelligence Integration and Superior Quality - Intellectual Property
	B6.4	Description of quality assurance process and recall procedures	Digital Intelligence Integration and Superior Quality - Quality Assurance
	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored	Digital Intelligence Integration and Superior Quality - Privacy Protection
B7:Anticorruption	General Disclosure	compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering	Digital Intelligence Integration and Superior Quality - Privacy Protection
	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases	Governance Enhancement for Long-term development - Business Ethics
	B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored	Governance Enhancement for Long-term Development - Business Ethics
	B7.3	Description of anti-corruption training provided to directors and staff	Governance Enhancement for Long-term Development - Business Ethics
B8:Community Investment	General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests	Cooperation for Mutual Benefits - Smart Community
	B8.1	Focus areas of contribution	Cooperation for Mutual Benefits - Smart Community
	B8.2	Resources contributed to the focus area	Cooperation for Mutual Benefits - Smart Community

Appendix II: ESG Performance

Environment

Name of indicators	Unit of indicators	2022	2023
Gross waste water discharge	m³	4,263.19	2,833.00
Wastewater discharge per unit revenue	m³/USD million	20.48	12.32
Gross GHG emissions	Tons of carbon dioxide equivalent	1,634.52	1,367.56
GHG emissions per unit revenue	Tons of carbon dioxide equivalent/USD million	7.85	5.95
Gross hazardous waste	Tons	0.14	0.08
Gross hazardous waste generated per unit revenue	Tons/USD million	0.0007	0.0003
Gross non-hazardous waste discharge	Tons	48.89	50.40
Recyclable waste	Tons	6.55	0
Non-recyclable waste	Tons	42.34	50.40
Gross non-hazardous waste generated per unit revenue	Tons/USD million	0.23	0.22
Purchased electricity	MWh	2,866.07	2,399.22
Energy consumption intensity	MWh/USD million	13.77	10.43
Usage of water resources <sup>8</sup>	m³	4,736.88	3,148.00
Usage of water resources per unit revenue	m³/USD million	22.75	13.69

Employment

Name of indicators	Unit of indicators	2022	2023
Total number of employees	people	1,829	1,454
Number of employees by employment type			
Full-time employees	people	1,803	1,453
Contract employees	people	26	1
Number of full-time employees by gender			
Male	people	1,256	1,000
Female	people	547	453
Number of full-time employees by age			
< 30	people	617	339
≥ 30	people	1,186	1,110
Unknown	people	0	4
Number of full-time employees by region			
Mainland China, and Hong Kong, Macao and Taiwan regions	people	1,781	1,434
Overseas regions	people	22	19

<sup>8</sup> Excluding water consumption in Shenzhen office.

Name of indicators	Unit of indicators	2022	2023
Number of full-time employees by rank			
Senior-level management	people	20	20
Middle-level management	people	70	57
Primary-level management	people	221	179
General employees	people	1,492	1,197
Number of full-time employees by ethnic group			
Han	people	1,763	1,397
Ethnic minority	people	40	37
Unknown	people	0	19

New employees

Name of indicators	Unit of indicators	2022	2023
Total number of new employees	people	90	134
Number of new employees by gender			
Male	people	63	88
Female	people	27	46
Number of new employees by age			
< 30	people	/	54
≥ 30	people	/	80
Number of new employees by region			
Mainland China, and Hong Kong, Macao and Taiwan regions	people	/	126
Overseas regions	people	/	8
Number of new employees by rank			
Senior-level management	people	/	0
Middle-level management	people	/	3
Primary-level management	people	/	5
General employees	people	/	126
Number of new employees by ethnic group			
Han	people	/	121
Ethnic minority	people	/	6
Unknown	people	/	7

Diversity

Name of indicators	Unit of indicators	2022	2023
Number of female employees in the primary-level management	people	/	43
Number of female employees in the middle-level management	people	/	23
Number of female employees in the senior-level management	people	4	4
Number of female employees in the C-suite	people	1	1
Proportion of female employees in revenue-generating positions	%	/	27.9
Proportion of female employees in STEM-related positions	%	/	20.1

Turnover rate

Name of indicators	Unit of indicators	2022	2023
Voluntary turnover rate	%	18.1	12.5
Turnover by gender			
Male	%	18.8	13.3
Female	%	16.2	10.6
Turnover by region			
Mainland China	%	17.5	12.4
Hong Kong, Macao and Taiwan regions (China), and overseas regions	%	61.3	14.6
Turnover by age			
< 30	%	24.8	17.7
30~50	%	13.0	10.3
> 50	%	50.0	0.0
Turnover by rank			
Senior-level management	%	/	0
Middle-level management	%	/	1.6
Primary-level management	%	/	6.0

Health and safety

Name of indicators	Unit of indicators	2021	2022	2023
Number of work-related fatalities	people	0	0	0
Number of lost-days as a result of work injuries	days	/	237	65

Development and training

Name of indicators	Unit of indicators	2022	2023
Proportion of employees receiving training	%	97.0	94.4
The percentage of employees trained by gender			
Male	%	97.0	94.3
Female	%	96.0	94.6
The percentage of employees trained by rank			
Management	%	92.0	93.1
General employees	%	97.0	94.6
The Average training hours of all employees <sup>9</sup>	hour	0.8	7.1
The average training hours of employees by gender			
Male	hour	0.8	6.6
Female	hour	0.8	8.0
The average training hours of employees by rank			
Management	hour	2.8	6.6
General employees	hour	0.3	7.2

Others

Name of indicators	Unit of indicators	2022	2023
Number of employee representatives	%	/	7.1
Absence rate	%	/	0.4

Supply chain management

Name of indicators	Unit of indicators	2022	2023
Number of suppliers by region			
Mainland China, and Hong Kong, Macao and Taiwan regions	number	816	779
Overseas regions	number	131	123

Customer services

Name of indicators	Unit of indicators	2022	2023
Number of product and service-related complaints received	case	136	39
Complaint resolution rate	%	100	100
Complaint response rate	%	100	100

Philanthropy

Name of indicators	Unit of indicators	2022	2023
Charitable donation	RMB 10,000	479	90

<sup>9</sup>This year, the company has redefined the statistical standard of the average training hours of employees by rank according to the division of management and general employees, including the training hours of Tuya Academy online courses and daily offline regular meetings. Therefore, there is a slight change compared with the previous year.



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