

2022 Environmental, Social and Governance Report

Tuya Inc. 涂鸦智能

Stock Code: NYSE: TUYA; HKEX: 2391

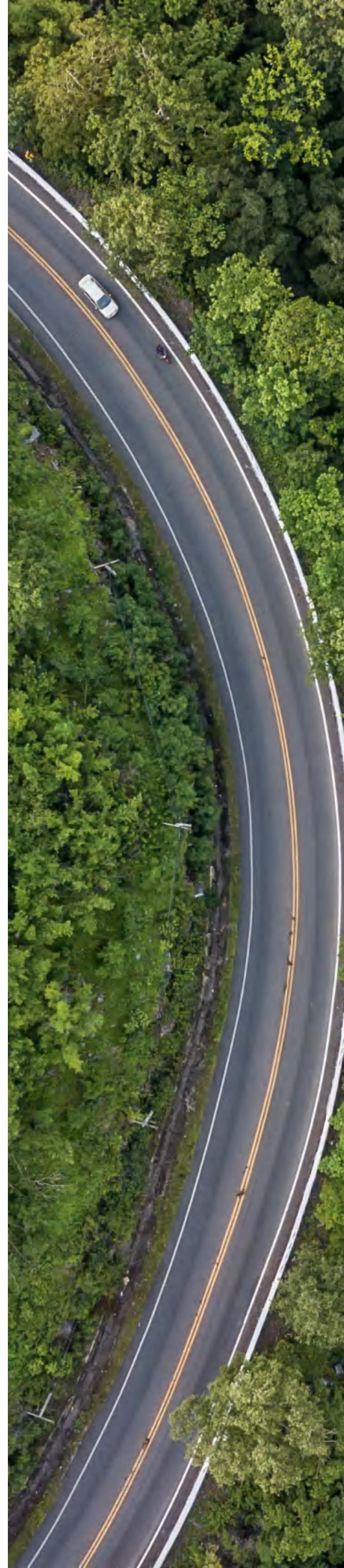
Global IoT Development Platform

Global IoT Development Platform Service Provider



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ABOUT THIS REPORT

This report is the first 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.

Reporting Timeframe

Unless otherwise stated, the period covered by this report is from January 1, 2022 to December 31, 2022 (the “Reporting Period”), while certain information and activities pertain to 2023 and prior to 2022.

Reporting Scope and Boundaries

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 content involved in this report is consistent with the disclosure scope of the Company’s Annual Report.

Basis of Preparation of the Report

This report has been mainly prepared in accordance with the Environmental, Social and Governance Reporting Guide contained in Appendix 27 of the Listing Rules of The Stock Exchange of Hong Kong Limited (the “Hong Kong Stock Exchange”). The preparation of this report is through the process of identifying important stakeholders, identifying important issues related to ESG, understanding the opinions of various stakeholders, and determining the materiality of issues, so as to determine the boundaries of the ESG report, collect the relevant report information and data, collate and aggregate such information, and review the information appeared in the report.

Source of Information and Assurance of Reliability

The information and data disclosed in this report come from the Company’s statistical data, relevant documents and internal communication files or 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.



Confirmation and Approval

Upon confirmation by the management, this report was approved by the board of directors (the “Board”) on March 1, 2023.

Acquisition of the Report

This report has been written in traditional Chinese and English, and the electronic version is published on the “HKEX” Fillings 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 traditional Chinese and English versions of this report, the English version shall prevail.

We attach great importance to the opinions of relevant parties and welcome readers to email to ir@tuya.com. Your comments will help us further improve this report and our ESG performance.

CHAIRMAN'S STATEMENT

2022 was a very challenging year for global enterprises and terminals. Since late 2021, we have seen high global inflation, soaring energy prices, sluggish economy, and weak consumption. Such an environment has caused a serious supply-demand mismatch in the global discretionary consumer electronic sector, resulting in a severe backlog of downstream inventories. The upstream and downstream enterprises in the global supply chain have entered a severe destocking cycle, which also brought more uncertainties to the realization of sustainable development goals of various economies. Against this backdrop, as a world-leading Internet of Things ("IoT") cloud development platform provider, Tuya is committed to bringing more cost-effective green and smart solutions to downstream enterprises, ecosystem partners and the IoT industry through technological development and product iteration, and taking more responsibilities.

The 2022 ESG report is our first ESG report. ESG is a prominent keyword for companies, businesses, capital markets and other fields around the world. A question that all companies are thinking about is: how to better practice ESG. In 2022, we took a new step in terms of ESG, and was committed to continuously improving the ESG governance level of the Company, laying a solid foundation for our long-term business mission and green vision in the future. In terms of our system, we have established an ESG governance structure to carry out systematic assessment, management and control work based on the identified ESG issues. In terms of business, we strictly abide by business ethics, put forward the same requirements for employees of the Company, suppliers and other partners, and improve the customer and supplier management, striving to create a healthy and clean business environment. In terms of corporate compliance, with the dual primary listing on the Main Board of Hong Kong, our Board approved the amendments and implementation of more than 10 management principles and policies relating to various compliance issues, covering corporate governance, director nomination, information disclosure and related party transactions. We adhere to the orientation of the needs of stakeholders, and through the establishment of a diversified communication mechanism, sincerely listen and respond to the expectations and concerns of different stakeholders. In particular, we respond in the following aspects.

We are committed to providing users with solid assurance in all aspects of our products and services and establishing industry quality benchmarks. Facing customers, we adhere to the "customer first" philosophy, efficiently promoting product management and innovation work to drive smart living. We have built a safe, reliable and compliant IoT platform by strictly regulating information security and customer privacy protection. We comply with domestic and international information security standards and industry requirements, integrating compliance requirements and standards into Tuya's internal control framework and cloud development platforms and products. At the same time, Tuya also cooperates with independent third-party security services, consulting and audit institutions to verify and assure the compliance and security of Tuya's cloud development platforms.



Xueji (Jerry) Wang
Chairman
Tuya Inc.

In 2022, we again passed all heavyweight security compliance certifications and annual reviews. For example, TrustArc, a world-renowned authoritative certification body, certified that Tuya complies with GDPR, CCPA, and PIPEDA. Ernst & Young, one of the “Big Four” accounting firms in the world, issued an unqualified opinion about Tuya’s SoC2/3 compliance. Moreover, Tuya obtained multiple information security and privacy protection certifications for the ISO/IEC system from BSI, a globally recognized management system standard issuing organization, as well as certifications involving data security, cloud service security, and smart hardware security including CSA STAR, EPC Enterprise Privacy Protection, ioXt, etc. Our cloud platforms and smart product solutions have passed the security assessment or penetration test verification by independent third-party security institutions such as Rapid7 and Underdefense, testing our products and solutions in terms of continuous security and reliability. In addition, we continued to update version 5.1 of the Tuya Security Compliance White Paper, and jointly released the IoT Solution White Paper with Amazon Web Services. Facing the industry, we are driven by sustainable development to create a high-quality IoT value chain.

We are committed to promoting smart society by building a better world. We promote the construction of digital factories to help traditional OEM manufacturers switch to smart equipment and products while upgrading their production efficiency. We focus on exploring the implementation of smart solutions in the community. In response to the demands and pain points of the traditional community industry in the process of digital transformation, we have launched targeted and user-friendly smart solutions, working with enterprises to co-build the future community with the entry point of “hardware support, group support, and spiritual support”. In 2022, our platforms, products and services served approximately 7,600 customers and nearly 4,000 brands around the world, empowering the sustainable development of our partners in many aspects. Our smart solutions have been widely used in various scenarios, including hotels, rentals, business districts, buildings, schools, communities.

We are committed to practicing green products and operations and achieving sustainable corporate development. Through the launch and continuous iteration of various comprehensive solutions for energy conservation and carbon reduction, we provide IoT device empowerment with advanced functions of energy and power management and energy-conservation platforms and small programs to help corporate customers and downstream terminals practice green life. Within the Company, we advocate the concepts of low-carbon travel and green office, attach importance to the effective use of various resources, and promote the work philosophy of energy conservation, consumption reduction, green and environmental protection in every detail of the operation process. For instance, in 2022, we processed a total of 866,000 vouchers, 98.45% of which were paperless.

We actively create a diverse, inclusive, fair and impartial working atmosphere, and are committed to growing together with our employees. Our team includes 40 ethnic minority employees. In addition, we cooperated with the Hangzhou Disabled Persons’ Federation to recruit 4 disabled employees, actively fulfilling our corporate social responsibility. We attach great importance to the training of employees’ skills and qualities by providing them with targeted and systematic employee training, with a training coverage rate of 97%. We provide employees with a remuneration incentive mechanism featuring performance bonuses, special bonuses, excellent project bonuses, equity incentive scheme, as well as a variety of employee benefits and care measures, hoping to share the results of long-term development with employees. We won the “Best HR Program of 2022 Flag Awards”, and will continue to stay true to our original aspiration and work hard together with employees.

In the capital market, Tuya was listed on the New York Stock Exchange ("NYSE") in early 2021 and completed its dual primary listing on the Main Board of Hong Kong on July 5, 2022. The listing in Hong Kong provides an additional assurance for all shareholders of Tuya to respond to uncertainties brought by the uncontrollable external environment, as well as an alternative trading channel option. The listing in Hong Kong has also put forward higher requirements for Tuya in terms of corporate management, operation and transparency, demonstrating our continuous commitment to providing all-round and full-effort support and assurance for shareholders and investors.

In addition, as an enterprise with a heart of public welfare and great love, we actively participate in social and public welfare activities, continuously contributing to the society through practical actions. We deeply responded to the calls from the society by participating in the Hangzhou-Ganzi "east-west cooperation" project. We donated a batch of smart devices such as smart air conditioners, sweepers and switches to Zhoupo Primary School in Caojiang Town, Gaozhou for its construction of educational facilities. In order to better help prevent natural disasters in Henan, we donated smart products worth approximately RMB1.5 million to Kaifeng, Henan for flood control and disaster relief. We also donated materials worth approximately RMB0.6 million to affiliated organizations of local science and technology associations to help rural revitalization. Up to the end of the Reporting Period, our cumulative charitable donations were worth approximately RMB4.79 million.

In the future, Tuya will continue to be a leader and deep cultivator in the IoT industry, adhere to our original aspiration, fully support the digital and intelligent transformation and accelerated upgrades of enterprises and the society with our open and neutral IoT ecosystem, always focus on customers with our employees as the basis, and through forward-looking strategic deployment and market planning, provide each IoT ecosystem partner, brand and original equipment manufacturer ("OEM") customer with value proposition of better and more cost-effective product, vigorously promoting sustainable development of the industry and the Company. We still have a long way to go in the emerging area of ESG. We will strive to make more progress to achieve long-term development with a more ambitious vision. We also look forward to working with everyone to experience the technological and stylish way of practicing ESG.

Xueji (Jerry) Wang

Chairman

Tuya Inc.

ABOUT Tuya

Introduction to the Company

Tuya (NYSE: TUYA, HKEX: 2391) is a global leading IoT cloud development platform and a technology-driven enterprise. Established in June 2014, we completed our U.S. listing on the NYSE on March 18, 2021, and subsequently completed our dual primary listing on the Main Board of the Hong Kong Stock Exchange on July 5, 2022. As a technology company committed to making life smarter, we continue to innovate by providing a cloud platform that can connect with numerous smart things, creating interoperable development standards to connect smart needs of various industries, and providing cloud-based software experience for smart devices of customers and end users. At the same time, the comprehensive solutions of Tuya have created a closed-loop of scenarios and businesses that combines software and hardware to further empower partners and customers to enhance product value, enabling end users and consumers to enjoy a more convenient and efficient smart life.

According to the research completed and published in 2022 by CIC, a well-known research institution, Tuya was the largest IoT PaaS provider in the global market of IoT PaaS market in terms of the volume of smart devices empowered in 2021, and according to the same source, Tuya ranked first with a market share of 14.9% in the global market of IoT PaaS for smart home and smart business in terms of revenue in 2021.



Adhering to the corporate mission of “Build an IoT Developer Ecosystem, Enable Everything to be Smart”, we implement localized operations worldwide with subsidiaries in the United States, Europe, India, China, Japan, Australia and Singapore, and serve customers in different markets in a targeted manner, carrying out our global strategy. With industry-leading technologies and products, all-round empowering channels, and a neutral and open IoT ecosystem, as of the end of the Reporting Period, our IoT PaaS enables businesses and developers in more than 200 countries and regions around the world to develop smart devices in about 2,700 categories, and had a total of more than 708,000 registered IoT device and software developers. Powered by Tuya (“PBT”) smart devices empowered by us are available in approximately 120,000 stores all over the world. We have served for more than 50 of Fortune Global 500 customers. In the future, we will continue to adhere to our original aspiration, keep on promoting and achieving for our vision of “global IoT development platform”, focus on cutting-edge technologies, and comprehensively connect customers, suppliers, and ecological partners across the value chain, striving to promote the development of the IoT sector to jointly build a better world with sustainable development brought about by IoT.

2,700

Product categories

7,600

Customers served in 2022

708,000

IoT device and software developers

Businesses and developers across

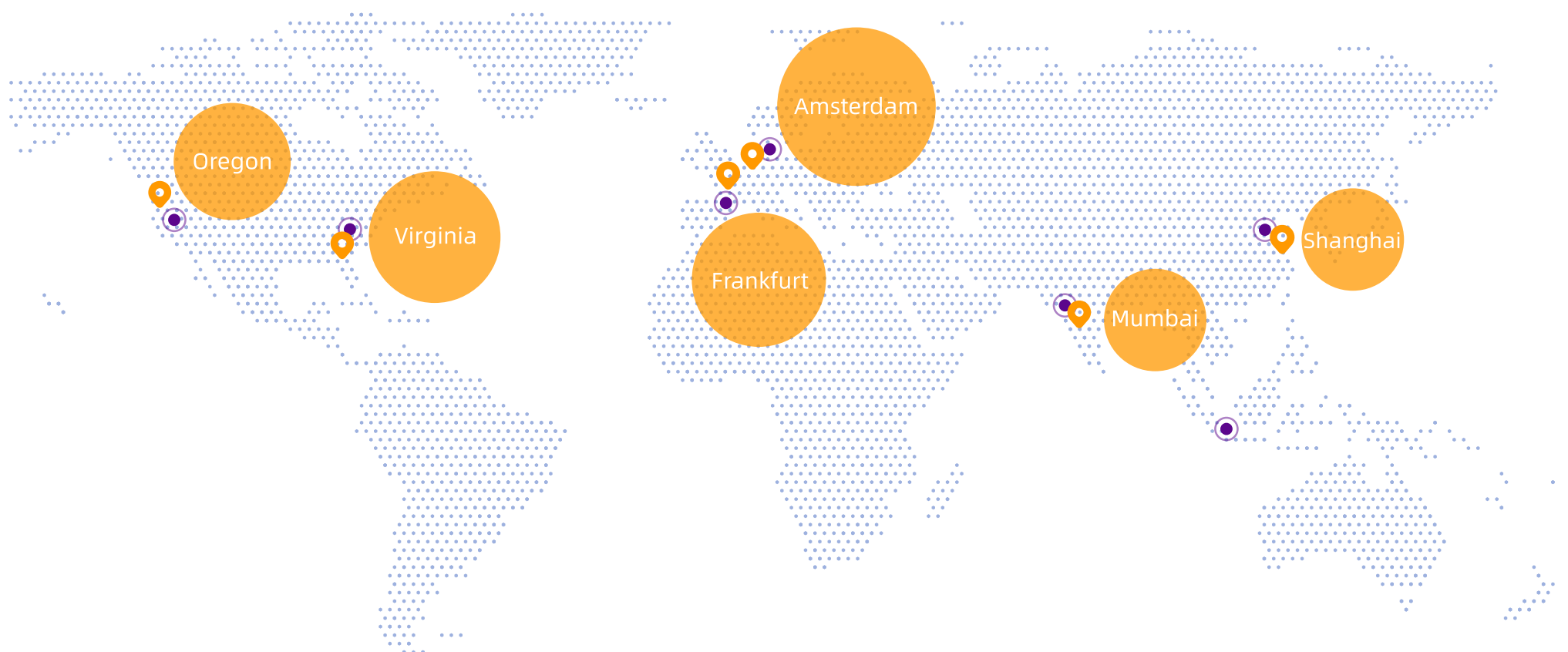
200+

countries and regions

PBT smart devices available in

120,000

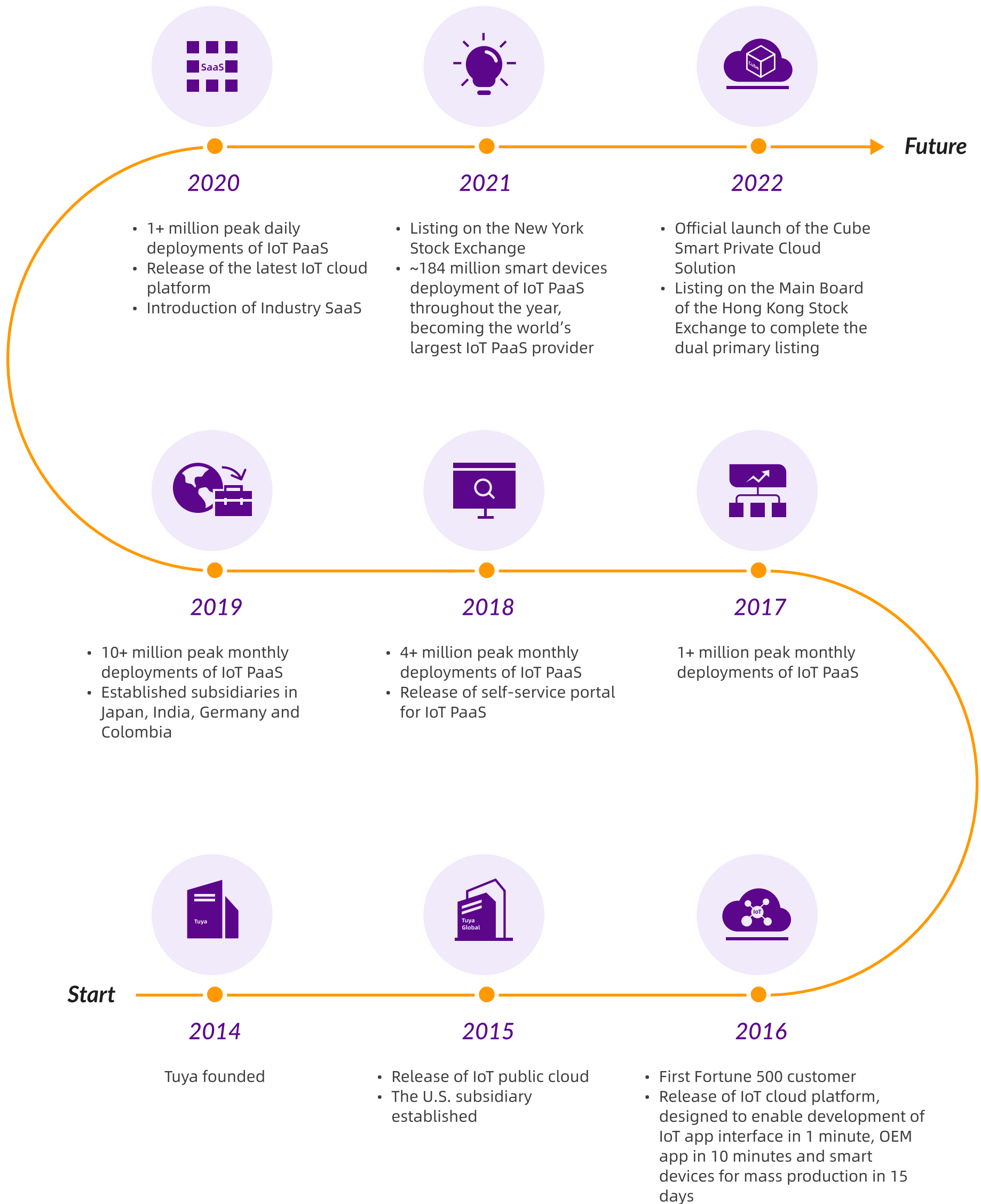
stores all over the world



● Regional Data Center ● Media Acceleration Node

*The above data is as of December 31, 2022

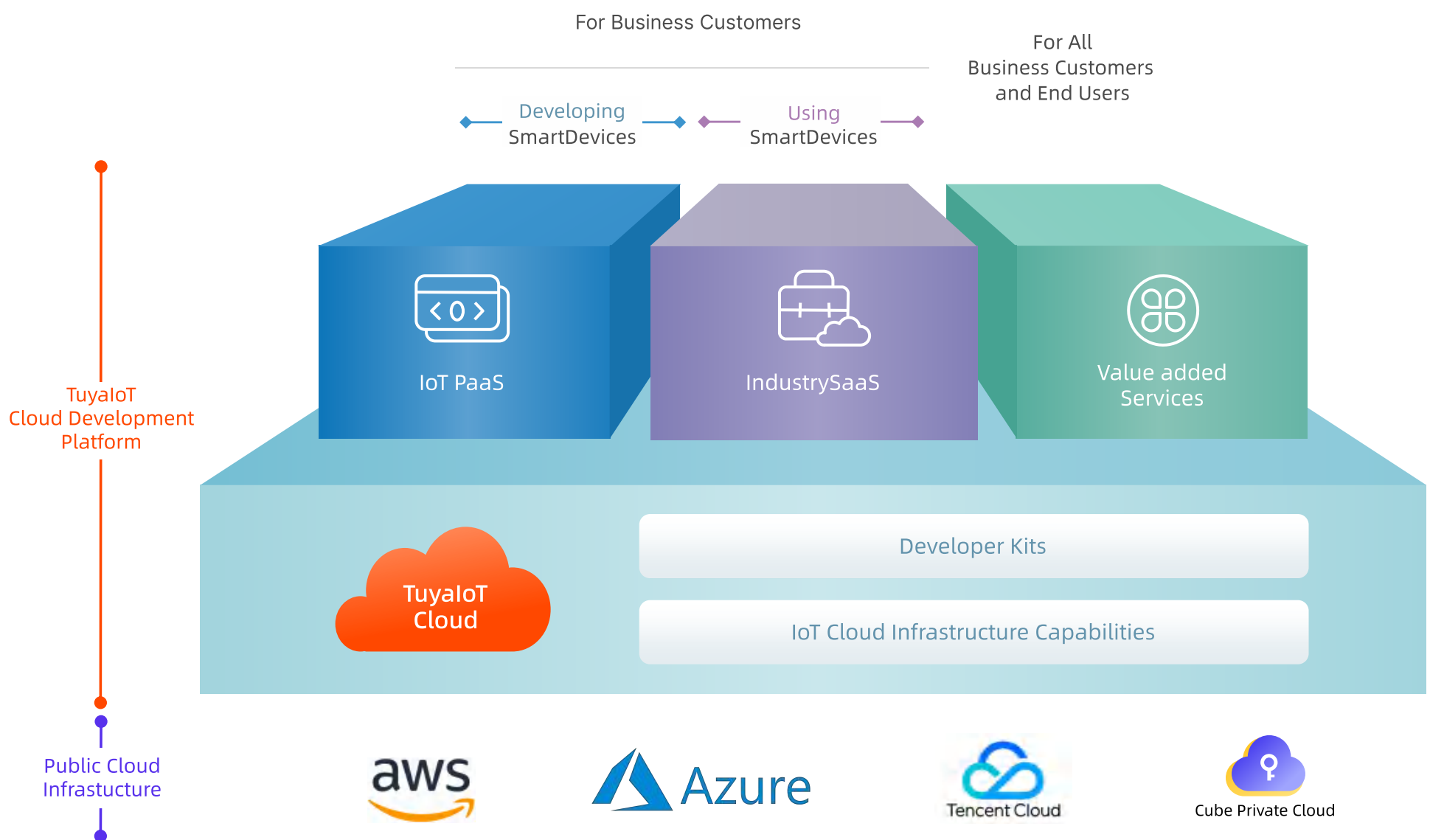
History of the Company's Development



Products and Services of the Company

We have pioneered a purpose-built IoT cloud development platform that delivers a full suite of offerings, including Platform-as-a-Service, or PaaS, and Software-as-a-Service, or SaaS. Through our IoT cloud development platform, we deliver a variety of offerings. Our IoT PaaS offering enables businesses, including original equipment manufacturer ("OEM") and brands, and developers to develop, launch, manage and monetize software-enabled smart devices and services. Our Industry SaaS offering enables businesses to deploy, connect, and manage large numbers and different types of smart devices. We also offer businesses, developers and end users a diverse range of cloud-based value-added services to improve their ability to develop and manage IoT experiences. Through our IoT cloud development platform, we have activated a vibrant IoT developer ecosystem, empowering players including brands, OEMs, partners and end users to interact through a broad range of smart devices.

We also believe the efficient distribution of Tuya-powered smart devices to target audiences benefits our long-term competitive edge and sustainability. To this end, we strategically assist specific customers, mainly brands and system integrators, who prefer not to directly deal with multiple OEMs in selecting smart devices, so that customers can purchase directly from us finished smart devices powered by Tuya. These customers typically place purchase orders directly with us by specifying the type of smart devices. We then source devices for these customers from qualified OEMs selected based on the type of products, specifications and other metrics.



Tuya IoT Development Platform

For business customers developing smart devices - IoT PaaS

Our IoT PaaS is an integrated all-in-one product that helps brands and OEMs to build and manage smart devices quickly, easily and cost-effectively. Our IoT PaaS product combines the most fundamental elements of a series of IoT capabilities such as “cloud-based connectivity and basic IoT services”, “edge capabilities”, “application development” and “device optimization solutions”.



Cloud-based connectivity and basic IoT services

Our cloud assigns a unique virtual ID to each PBT device, and creates a corresponding and unique cloud-based virtual device model, the “Digital Twin”. Through the “Digital Twin”, smart devices can implement closed-loop data exchange with the cloud platform throughout their life cycle. As the command is issued or the status of the device changes, the Digital Twin interacts with it synchronously to realize various device functions and scenarios.



IoT edge capabilities ("Edge")

To make devices smarter, each smart device needs to have IoT edge capabilities (basic functions such as device connectivity, storage, and data processing). Tuya offers a library of edge capabilities for customers to choose from, as well as visualized, simple tools for them to quickly find what they need. Tuya IoT PaaS supports mainstream communication protocols, such as Wi-Fi, Bluetooth and ZigBee, as well as a wide variety of IoT device edge capabilities.



Application ("App") development

An easy-to-use App is the key to a superior IoT experience. Tuya provides customers with the “white label” App to help customers achieve the launch of complete IoT products in the shortest possible time. This “one-app-for-all” approach enables end users to manage and control multiple devices, even devices from different brands and categories, using only one App. Our customers may choose to involve us in designing tailor-made applications or, in more cases, can use the development tools we provide to customize applications by themselves or through third-party developers.







Device optimization solutions

Compatibility between software and hardware is crucial to the user experience of the device. Tuya assists customers by helping them optimize the design, manufacture and configuration of Tuya-powered devices to ensure the fit of hardware and software to deliver desired use cases and functionality. We also provide developers with a set of analysis and debugging tools to help them independently identify root causes and troubleshoot problems.

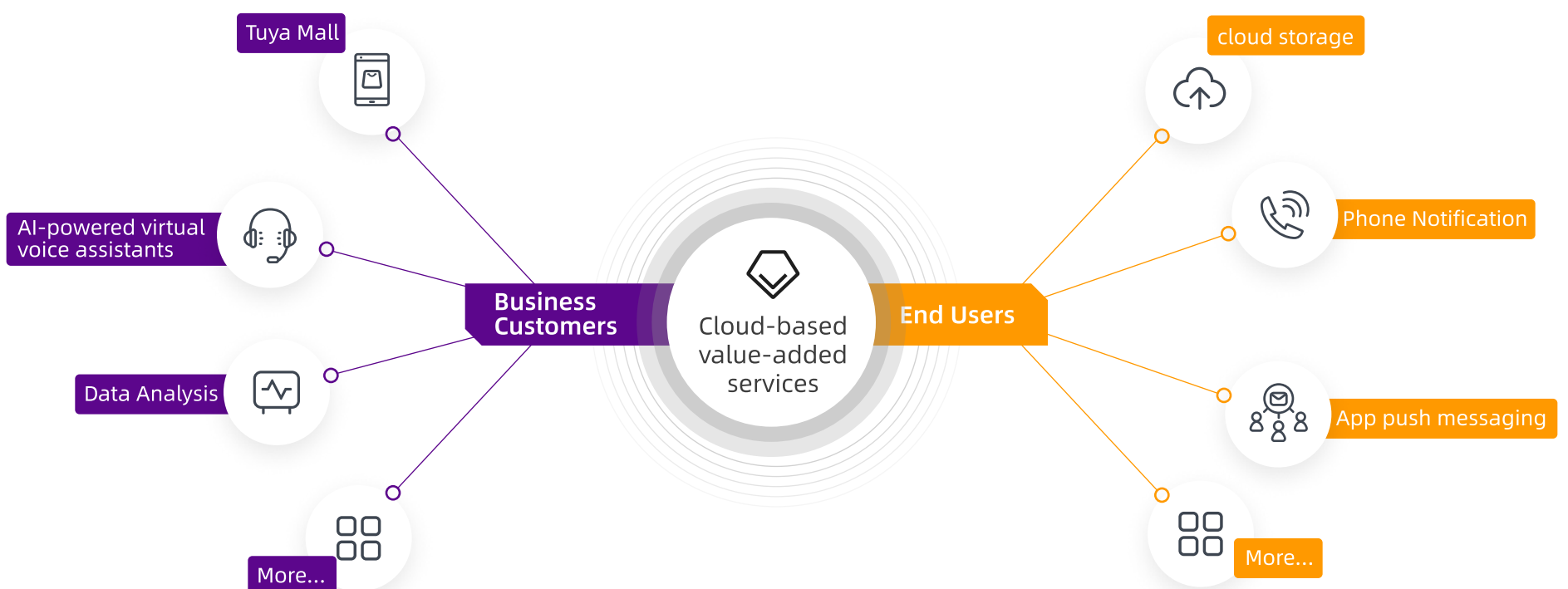
For business customers using smart devices - Industry SaaS

We offer industry SaaS, vertical-focused software solutions that enable businesses to easily and securely deploy, connect, and manage large numbers and different types of smart devices. We design Industry SaaS as plug-and-play everyday tools for people to interact with and harness the power of IoT. We offer customers with a series of smart solutions including but not limited to smart commercial lighting & building SaaS, smart hospitality/residential SaaS, and smart community SaaS. Industry SaaS makes lives easier, healthier and more enjoyable, and drives efficiency, cost saving and productivity for businesses of all sizes across industries. Our Industry SaaS is built to be brand-agnostic and is compatible with PBT devices across brands and categories.

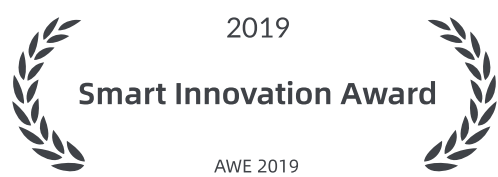
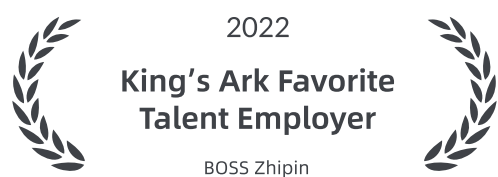
	
	

Cloud-based value-added services

We provide a variety of cloud-based value-added services that are compatible with IoT PaaS for business customers developing smart devices (such as brands and OEMs), including Tuya Mall, AI-powered virtual voice assistants, and more than 50 other value-added services. We also provide end users using smart devices with value-added service functions such as App push messaging, cloud storage, content service, etc.



THE COMPANY'S HONORS



2022 ESG PERFORMANCE HIGHLIGHTS

Responsibility as Foundation of Enterprise for Steady and Long-term Development



ESG governance framework

Established a top-down ESG governance framework of “Board of Directors-ESG Management Committee-ESG Work Implementation Group”

2 females

2 female directors on the Board, accounting for more than 20%

4 females

4 females in the senior management, accounting for 20%

100%

Business ethics related policies covering 100% of employees, customers, suppliers, partners and other relevant parties

0

0 litigation cases of corruption, bribery, money laundering, monopoly and other violations of business ethics

Superior Quality for Digital and Intelligent Future



Cyber security compliance governance structure

Established a cyber security compliance governance structure, and set up the Compliance Committee comprising senior management such as the CFO, CTO and CIO which holds a formal meeting every six months

6

external network security certifications

4

security management system certifications

123

data security review reports

412

security testing reports

Tuya Security Compliance White Paper, Tuya General Data Protection Regulation (GDPR) White Paper, and Brazil’s Lei Geral de Proteção de Dados (LGPD) White Paper

*The above data is as of December 31, 2022

Superior Quality for Digital and Intelligent Future



7

data security training sessions

7

Participated in the formulation of 7 relevant standards of the IoT

93.46%

The customer satisfaction rate of the platform technical service center reached 93.46%

449

patents obtained in total (of which: 101 invention patents, 145 utility model patents)

135

copyrights obtained in total (of which: 125 software copyrights)

0

Successfully passed the annual audit of ISO 9001 certification with the audit result of "zero 'non-conformity items'"

People-oriented, Walking Together Hand-in-hand



7,344

A total of 7,344 employee-times participated in employee training

97%

training coverage rate

Multi-layer employee caring system

Established a multi-layer employee caring system, including the provision of overseas travel insurance for employees, subsidies for employees staying in Hangzhou during the Spring Festival, anniversary celebration etc.

40+

Team includes more than 40 ethnic minority employees

Best HR Program of 2022 Flag Awards

Won the Best HR Program of 2022 Flag Awards

*The above data is as of December 31, 2022

**Community Co-construction,
Industry Co-creation**



RMB4.79 million

Up to the end of the Reporting Period,
charitable donations were worth
approximately RMB4.79 million

500+

Tuya IoT smart educational lighting solution
empowered over 500 classrooms

**Green Development,
Low-carbon Operations**



98.45%

vouchers produced are paperless

4.26 tons

saving about 4.26 tons of paper

0

environmental violation incidents

*The above data is as of December 31, 2022

02



RESPONSIBILITY AS FOUNDATION OF ENTERPRISE FOR STEADY AND LONG-TERM DEVELOPMENT

Adhering to integrity and compliance, and strictly abiding by business ethics are the foundation of Tuya. We actively create a clean and honest corporate culture, incorporate environmental, social and governance issues into the top-level planning and design of the enterprise, continuously improve the corporate governance structure, strengthen risk management and control measures, and protect the rights and interests of all stakeholders, firmly building a corporate foundation for sustainable development.



CORPORATE GOVERNANCE

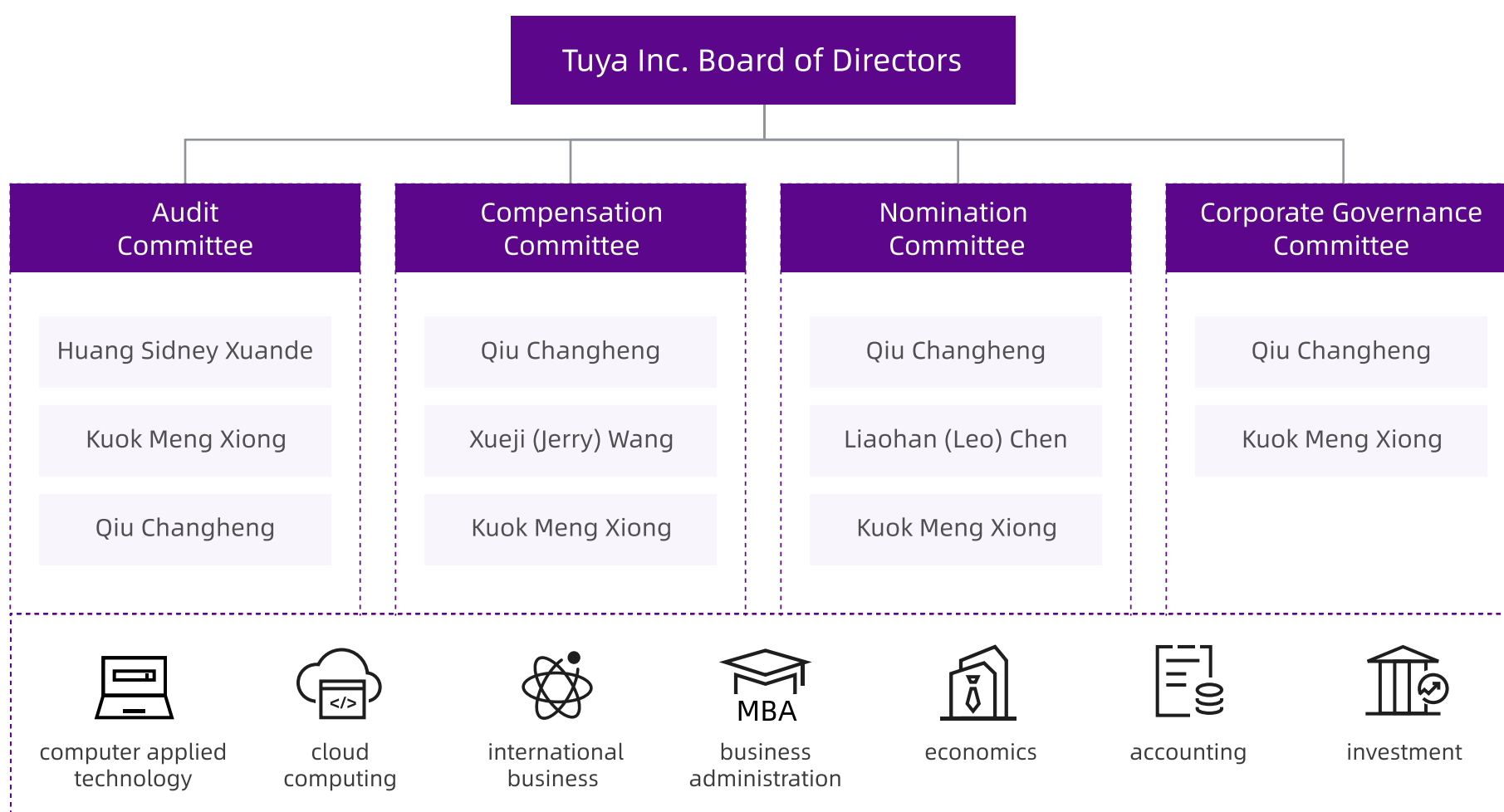
Tuya has established a corporate governance mechanism with clear responsibilities, so as to discipline itself with high standards. We have set up a standardized and orderly governance structure composed of the shareholders’ general meeting, the Board and its subordinate special committees, and the management, forming a governance mechanism with clear powers and responsibilities, mutual coordination and mutual checks and balances, and ensuring efficient and compliant corporate governance.

We attach importance to the diversity and professionalism of the Board. The factors we consider include but are not limited to Board members’ skills, industry experience, background, gender, etc., so as to improve the level of corporate decision-making with comprehensive perspectives and concepts. The current Board members have extensive industry experience, covering professional capabilities in including information and technology science, cloud computing and computer applied technology, international business and economics, business administration, law, finance, accounting, investment, engineering, physics, history, and chemistry, etc. As of the date of this report, the Board of Tuya is composed of 9 directors, including 4 independent directors, accounting for more than 40%; 2 female directors, accounting for more than 20%. Besides, there are 4 females within the senior management team¹ which consists of 20 personnel, accounting for 20%.

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.

In 2022, the Company held 1 shareholders’ general meeting, 7 Board meetings (or resolutions), 4 meetings (or resolutions) of the Audit Committee, 4 meetings (or resolutions) of the Compensation Committee, 1 meeting (or resolution) of the Nomination Committee, 1 meeting (or resolution) of the Corporate Governance Committee, and 1 meeting of the chairman and non-executive directors.² 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.

In addition, we established a top-down ESG framework system and management mechanism in 2022, details of which are set out in the following ESG governance section.

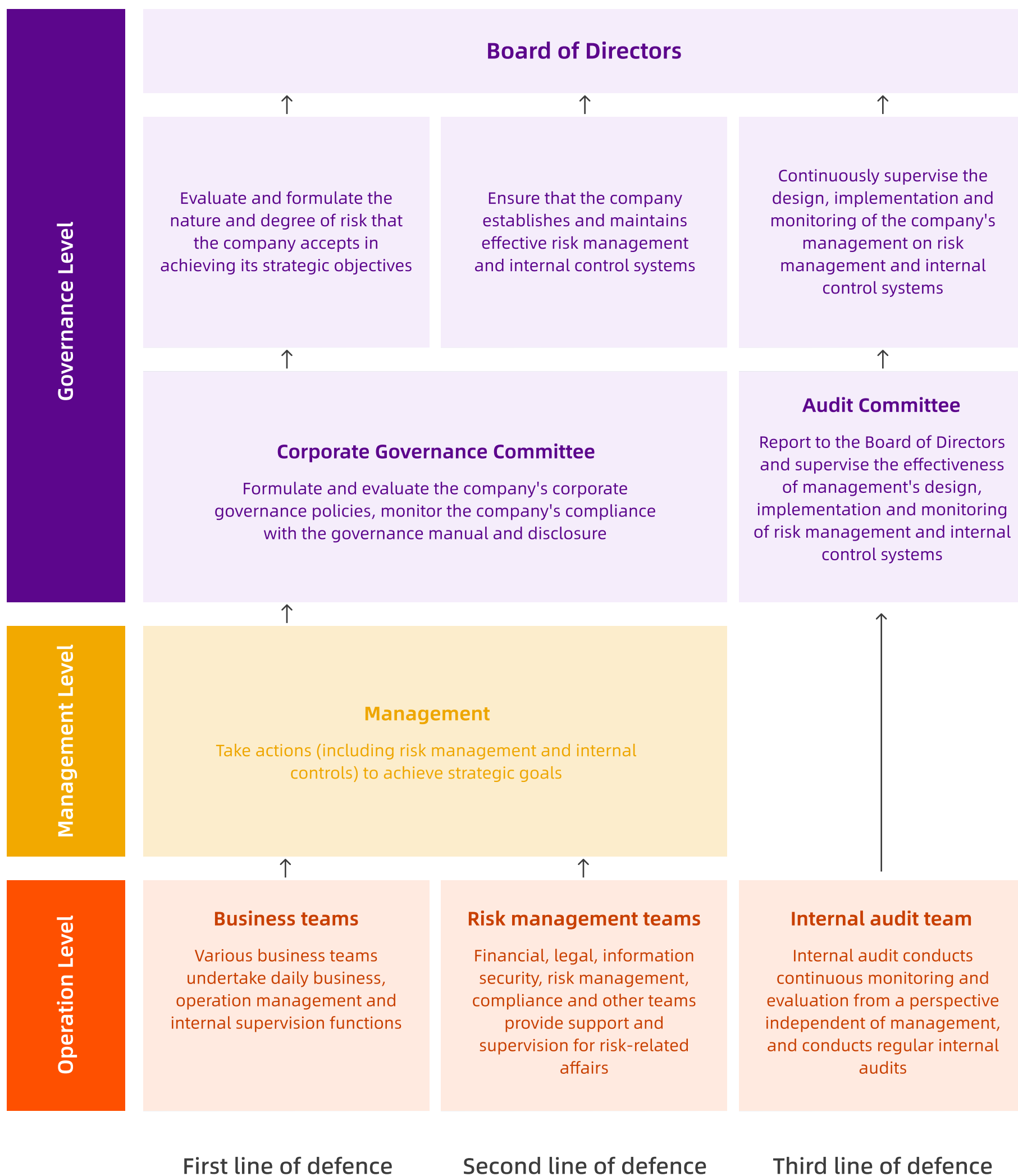


¹ * “Senior management team” consists of team leaders (“TL”) of Level 1 department of the Company.

² *Some 2022-related meetings or resolutions (such as “2022 Board of Directors”, etc.) were actually held in early 2023.

RISK MANAGEMENT AND CONTROL

Adhering to the basic concept that risk management serves the strategic goals and involves all employees, Tuya systematically carries out risk management work. In order to ensure the effectiveness of risk management and internal control systems, we have established a risk management organizational structure covering all employees, forming three lines of defense for risk control.



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 engaged one of the Big Four accounting firms in the world as our consultants to assist us in continuously improving our risk management, internal control and operational effectiveness systems. We have formulated management policies such as the Tuya Risk Management Policy and the Tuya Internal Audit Policy, forming a whole-process risk management and control system covering risk classification and identification, risk control, risk assessment, risk response measures, monitoring and improvement, which effectively provide assurance to control the risks of the Company's operations. We regularly conduct risk assessments and in-depth interviews with the personnel in charge of risk management, and further clarify risk management priorities and corresponding internal control measures based on the potential impact of identified risks and possibility of occurrence. During the Reporting Period, we identified five major risk management areas: strategy, operation, finance, information technology and compliance, along with multiple risk management factors.



Risk management practice matrix of 2022

In 2022, we actively carried out multi-frequency and multi-dimensional internal and external audit work, and continued to monitor and evaluate risks. In addition to completing the SOX-related internal control self-assessment with the assistance of external consultants, we conducted various special internal audit projects as needed, including financial audits, employee departure audits, procurement audits. Moreover, we engage PricewaterhouseCoopers ("PwC") to audit our annual financial statements who issues an audit opinion each year, and we also maintain comprehensive communication with our auditors during the preparation and release of quarterly financial statements.

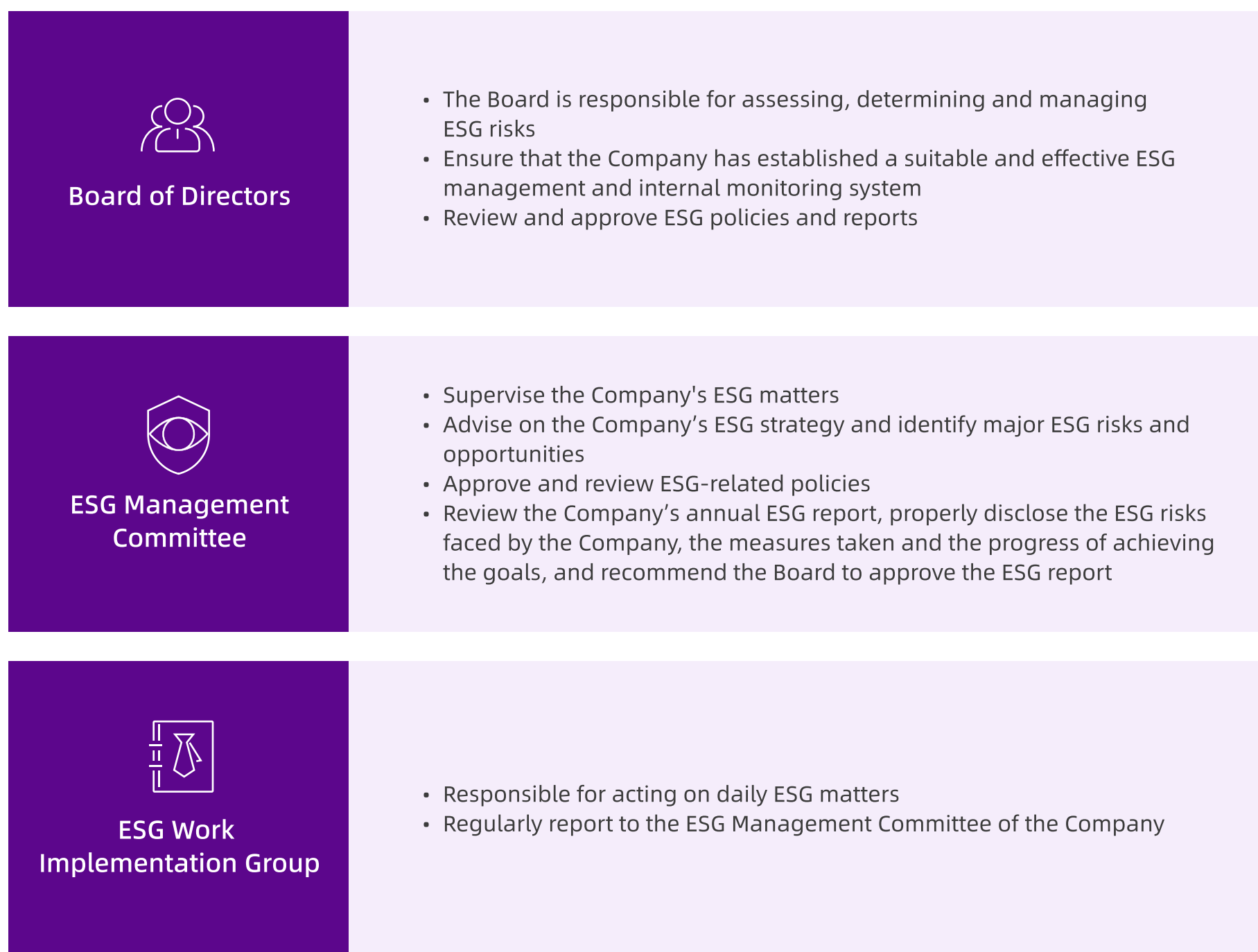
After evaluation, the Board of Tuya was of the view that the internal control system of Tuya was sound and effective in the year of 2022, and no major defects have been found in the Company's internal control design or implementation.

ESG GOVERNANCE

We are well aware that good ESG governance is the cornerstone of achieving sustainable development of Tuya, and is of great significant importance to the Company’s stable operation of emergency crisis response and seizing opportunities. By continuously improving the top-level design of ESG governance and actively engaging in communication with various stakeholders, helping the Company better respond to the concerns of all parties.

ESG Governance Structure

In order to better promote the Company’s ESG work, Tuya has initially established an ESG governance structure to further promote the supervision, review and management of the Company’s sustainable development effort by the Board and the management of the Company. Our top-down ESG governance structure consists of the Board, the ESG Management Committee and the ESG Work Implementation Group.



ESG governance structure of Tuya

Board's statement

The Board of Tuya is responsible for supervising the Company's ESG matters, and participates in promoting the Company's ESG work. In order to improve its ESG system construction, the Company has established a top-down ESG governance structure during the Reporting Period by setting up the ESG Management Committee composed of senior management, and the ESG Work Implementation Group under it, clarifying the management responsibilities of each level.

The ESG Work Implementation Group is responsible for participating in the assessment of the Company's key ESG risks, considering the possibility and impact of key ESG risks, and formulating risk response measures. The Board reviews the Company's key ESG risks, understands the management measures taken, and makes recommendations. During the reporting period, in accordance with the framework of the Task Force on Climate-related Financial Disclosures ("TCFD"), the Company initially carried out climate change risk identification and formulated response measures. In addition, during the Reporting Period, Tuya carried out ESG performance improvement work such as setting ESG qualitative goals and improving the ESG information collection system, integrating ESG management into daily work, and continuously improving sustainable development performance. The Board has checked and reviewed the establishment of the ESG target, and will regularly review the progress of such target.

This report also discloses the above-mentioned ESG-related matters in detail, and has been reviewed and approved by the Board.

Communication with Stakeholders

We attach great importance to the expectations of stakeholders, and actively understand and listen to their concerns about ESG management and practice of Tuya. During the Reporting Period, we conducted multi-channel, multi-platform and multi-frequency communication with internal and external stakeholders through online and offline meetings, interviews, opinion surveys and business visits to enhance stakeholders' understanding and recognition of the Company, and improve the corporate governance standards and overall corporate value. We incorporate the opinions of stakeholders including those of employees, customers, investors, suppliers, regulatory and competent authorities, community, downstream end users and public into the ESG governance and decision-making process, and respond to the concerns of stakeholders through this report.

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

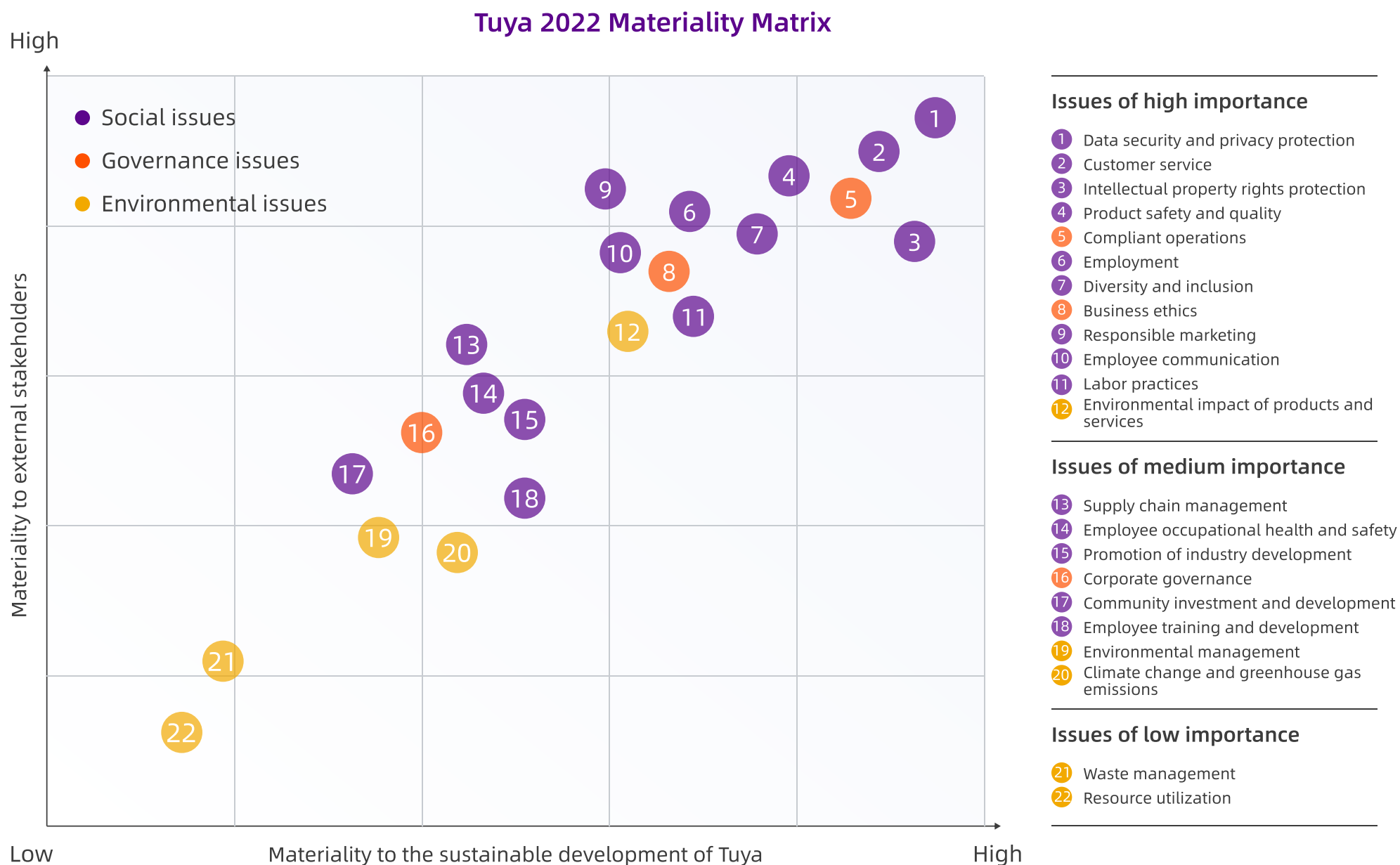
ESG MATERIAL ISSUES

During the Reporting Period, we carried out the identification of material issues with reference to the disclosure guidelines of the Stock Exchange, sustainable development issues that capital market rating agencies pay attention to, and issues disclosed by peers. We distributed and collected 115 survey questionnaires on material issues to internal and external stakeholders to understand the expectations of internal and external parties on Tuya's response to and disclosure of ESG issues, so as to sort out, analyze and summarize the issues of concern to major stakeholders.



Analysis of material issues of Tuya

According to the analysis results, we ranked the materiality of each issue from two aspects - the materiality to the sustainable development of Tuya and the materiality to external stakeholders, and identified 12 issues of high importance, 8 issues of medium importance, and 2 issues of low importance.



BUSINESS ETHICS

Tuya strictly abides by the relevant laws and regulations of each place of operation, and integrates business ethics and compliance management into the Company’s day to day operations through the construction of a business ethics system and a compliance culture. We have formulated a business ethics code system 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-money laundering, anti-discrimination, conflict of interest and independence, whistleblowing, insider trading, information protection, fair trade, and environment, health and safety requirements, and specified in the Employee Business Code of Conduct sanctions and penalties of violation to further guide and restrain the behavior of employees. We formulated the relevant management process in the early years. In 2021, the Board reviewed such internal policies, management processes and measures. In particular, the Board approved a series of policies including the Anti-corruption Policy, and re-examined and approved them before the listing in Hong Kong in 2022.

The business ethics code system of Tuya not only covers all our employees, but also puts forward basic requirements for compliant operations to our customers, suppliers and partners, so as to jointly create an atmosphere of integrity and honesty. We have signed integrity agreements with all major suppliers, covering product’s environmental friendliness, integrity commitments, quality assurance, social responsibility, etc. During the Reporting Period, our business ethics policies covered 100% of employees, customers, suppliers, partners and other relevant parties.

Tuya adopts a “zero tolerance” attitude towards any retaliation for whistleblowing. We strictly abide by the relevant regulations on the reporting of violations and the protection of whistleblowers in the Employee Business Code of Conduct and the Basic Human Resources Policy of Tuya, and maintain unobstructed channels for compliance whistleblowing. Relevant internal and external parties of the Company can report with real names or anonymously through our public whistleblowing mailbox integrity@tuya.com. We have established a complete reporting process, and any information involved in the whistleblowing and investigation process is kept strictly confidential. Any person or unit is strictly prohibited from retaliating against whistleblowers in any form.

Tuya regularly organizes business ethics training to raise employee awareness and promote the construction of an internal business ethics culture. We have promoted courses such as anti-corruption compliance, anti-money laundering, information security and compliance awareness training as compulsory courses to all employees of the Company. In addition, 9 Board members of Tuya participated in training related to compliant operations. During the Reporting Period, according to the information available to us, there was no lawsuit related to corruption, bribery, money laundering, monopoly and other violations of business ethics against the Company or the employees of the Company.

Business ethics policies covered

100%

of employees, customers, suppliers, partners and other relevant parties

Receive reports

The human resources department and the internal audit and internal control department are responsible for managing the Tuya whistleblowing mailbox and responding to the reported matters



Handle investigation

A reported matter handling team is formed by one management member from each of the human resources department, the legal department, the finance department, and the internal audit and internal control department to conduct detailed investigation on the reported matter



Record and track

The internal audit and internal control department is responsible for recording and tracking the investigation results and subsequent handling plans of all reported matters

03

SUPERIOR QUALITY FOR DIGITAL AND INTELLIGENT FUTURE

Technological innovation has changed people's lives and brought new business opportunities to Tuya with a more open, inclusive and integrated technology design philosophy, as well as high-standard data security and privacy protection measures, Tuya brings intelligence into thousands of households and creates the ultimate experience for consumers. We take continuous iterating innovation as the core competitiveness of the enterprise, solid product quality as the basic driving force of the enterprise, and satisfying customer needs as the highest innovation force, empowering the digital and intelligent transformation of customers and the society, and promoting the sustainable development of the society.



DATA SECURITY AND PRIVACY PROTECTION

Data security and privacy protection is one of the highest priorities for Tuya in the smart industry ecology. We are always committed to providing customers with consistent, reliable, secure and compliant services, effectively protecting the security, confidentiality and integrity of the data of our customers and their users, and building a comprehensive cloud platform security system. We are constantly enhancing our technical capabilities in data security and privacy protection, and safeguard security compliance requirements for Tuya’s global business layout through comprehensive management and control measures, with a view to deliberately coping with the global security challenges amid the progress of the Internet of Everything, technological iteration, and the development of the times.

During the Reporting Period, Tuya has further comprehensively improved its data security protection capabilities. We have achieved outstanding results in our research and development (R&D) security, operation safety, security compliance, business security, security emergency response and security awareness improvement.



Research and Development security

Based on the deep promotion of DevSecOps (“Development, Security, Operation”) progress, Tuya has comprehensively improved the overall standard of quality of R&D security in terms of the following aspects.

R&D of tools	Operation with rules	Security review	Security training
<p>Tuya’s self-developed black box scanner can effectively realize monitoring of historical vulnerabilities.</p> <p>Currently, Tuya's self-developed scanner conducts scans of: the public network once a day, the online intranet once a month, and the office network once a week. Additionally, the security tools in DevSecOps cover 100% of the applications released through the DevOps platform.</p> <p>Moreover, Tuya also adopts other scanning and defense tools and measures.</p>	<p>During the Reporting Period, Blackduck, code audit and image scanning have realized full component upgrades, with the ability for research and development (“R&D”) to handle normal matters on its own.</p>	<p>123</p> <p>During the Reporting Period, we produced 123 security review reports.</p> <p>412</p> <p>During the Reporting Period, we produced 412 security testing reports.</p>	<p>7</p> <p>Organized 7 professional security skill training sessions</p> <p>260+</p> <p>with more than 260 participants</p> <p>360+</p> <p>more than 360 participants took the Java security coding exam</p> <p>99.18%</p> <p>with a passing rate of 99.18%</p>



Operation Safety

Tuya has independently developed security protection tools, comprehensively improving the safe operation of each platform and the security protection capabilities.

During the Reporting Period, Tuya launched a self-developed security product - Security Orchestration, Automation and Response (SOAR). This product is based on the analysis of incidents in the early stage of orchestration and automation, and integrates existing security technologies to the greatest extent through intelligent orchestration and response, improving the life cycle management of security incidents and the ability and efficiency of security incident resolution.

WAF ³ During the Reporting Period	RASP ⁴ During the Reporting Period	Wazuh ⁵ During the Reporting Period
<p>26 added 26 new rules</p> <p>33 optimized 33 rules</p> <p>393.9% defended against network attacks with a year-on-year growth rate of 393.9%</p>	<p>3 added 3 new rules</p> <p>20 optimized 20 rules</p> <p>100% the number of nodes covered increased by approximately 100% year-on-year</p> <p>further enhanced significantly Our detection capability of abnormal requests has been further enhanced significantly</p>	<p>32 added 32 new rules</p> <p>59 optimized 59 rules</p>

³ *WAF (Web Application Firewall) is a type of firewall that helps protect web applications from attacks. It is designed to protect against common web application vulnerabilities.

⁴ *RASP (Runtime Application Self-Protection) is a security tool that is designed to protect applications from various security threats by adding security controls directly into the application runtime environment.

⁵ *Wazuh is a popular open-source security tool that provides host and endpoint security monitoring and threat detection for public and private cloud environments, as well as local environments.



Business security

During the Reporting Period, the Tuya security team successively launched the Tuya verification code, certificate management center, third-party account management platform, and confidentiality management center management platform, effectively reducing the occurrence of risk events such as credential stuffing, fake registration, information theft, and “wool-pulling (i.e. unfairly benefiting from various vulnerabilities)”, and effectively reducing the risk of business loss.

- Tuya verification code has been integrated with its IoT platform, voice services, building SaaS, community SaaS, SaaS development frameworks, “quick-to-build” programming platforms and other businesses to provide verification services for Tuya Cloud and App.
- The certificate management platform has supported security management of internal and external certificates, including support for Matter project. At present, the certificate management platform has integrated hundreds of security management certificates.
- The privileged account and confidentiality management platform provides multiple access methods to promote the connection of cloud platform accounts, operation and maintenance of privileged accounts, business ak/sk, etc., through SDK or privileged account system for operation and maintenance of applications and online services. At present, hundreds of third-party accounts have been connected.



Security awareness improvement, industry security development in practice

The internal official account of Tuya Security

64

published 64 articles

113.3%

representing a year-on-year growth rate of 113.3%

50%

with a year-on-year growth rate in reading volume of about 50%

The external official account of Tuya Security

11

published 11 articles

24

published 24 technical articles on external mainstream security media

over 3 million

with a total reading volume of over 3 million

over 1 million

representing a year-on-year increase of over 1 million

Ensuring Cyber Security

We strictly abide by the laws and regulations related to cyber security applicable to where we operate, including but not limited to the Network Security Law of the People’s Republic of China, the EU’s General Data Protection Regulation (“GDPR”), the California Consumer Privacy Act, the U.S. Cybersecurity Information Sharing Act, etc. We fully identify various cyber security legal risks, and have formulated a series of cyber security management policies and strategy documents such as Internal Audit Management Policy, Application Security Management Policy, and the Data Security Management Policy, to protect the information and data security of our software platform.

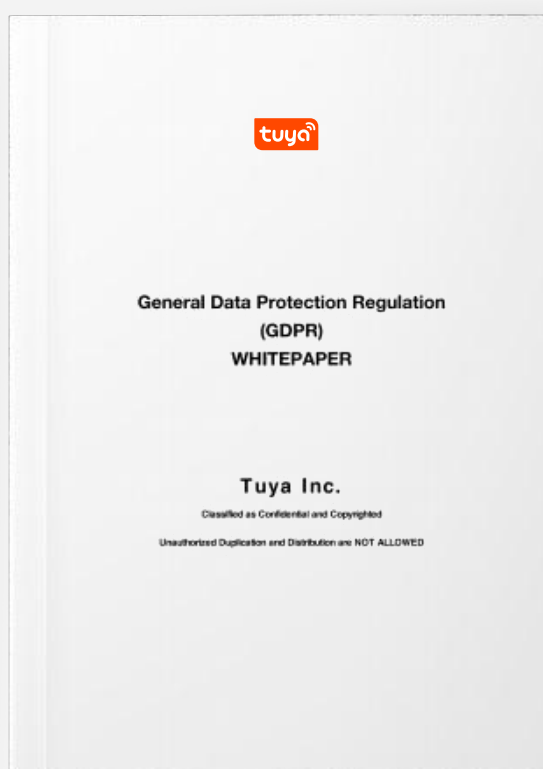
Tuya Network Security Commitment

The professional technical experience of attack protection of Tuya’s security team and well-known security service providers around the world provides security operation and maintenance services for our cloud platforms, effectively protecting the safe operations of Tuya Cloud, and ensuring the privacy and data security of customers and users .

Tuya is committed to providing customers with IoT access services that are consistent, reliable, safe, and in compliance with regulatory requirements. In order to better protect user information security, we think from the perspective of consumers and have established a complete security assurance system at the technology foundation to ensure that our information security support meets local compliance requirements. We have successively released and continuously updated the Tuya White Paper on Information Security & Compliance, the Tuya General Data Protection Regulation (GDPR) White Paper, and the Brazil’s Lei Geral de Proteção de Dados (LGPD) White Paper to provide customers and users with a more comprehensive and systematic understanding of the information security compliance management measures of Tuya, and a deep security insight into the Tuya cloud platform.



Tuya Smart White Paper on Information Security & Compliance



Tuya GDPR White Paper

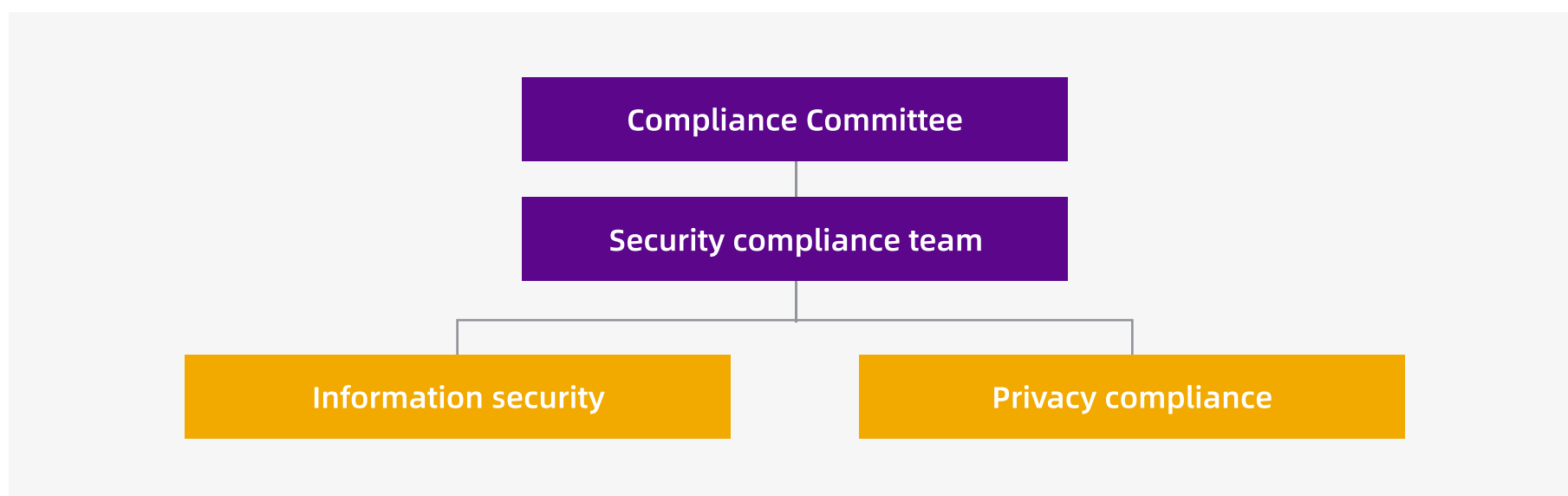


Brazil’s Data Protection Law LGPD White Paper

Cyber Security Compliance Governance



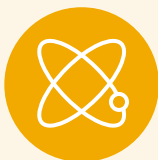
In order to ensure the information security of cloud, we have established a professional and complete security compliance team at the executive level, with full-time dedicated personnel supporting Tuya Cloud’s cyber security assurance, data security, privacy compliance, security assessment, and operation and maintenance. We also cooperate deeply with external and authoritative security privacy consultants and world-renowned law firms to ensure that the Tuya cloud network and compliance system architecture is controllable, credible and reliable at every level of data security assurance.

Tuya has established the Compliance Committee, which is chaired by our key founder. Members of the committee include senior management such as the CFO, CTO, and CIO. Together they are committed to ensuring the information security and compliance of Tuya, and providing Tuya (including its operations and business stakeholders) with guidance and support on the aspect of information compliance. The Security Compliance Committee holds a formal meeting every six months to discuss the realization of security compliance goals and the main goals of the next stage, and to review, evaluate and summarize information security and compliance work.

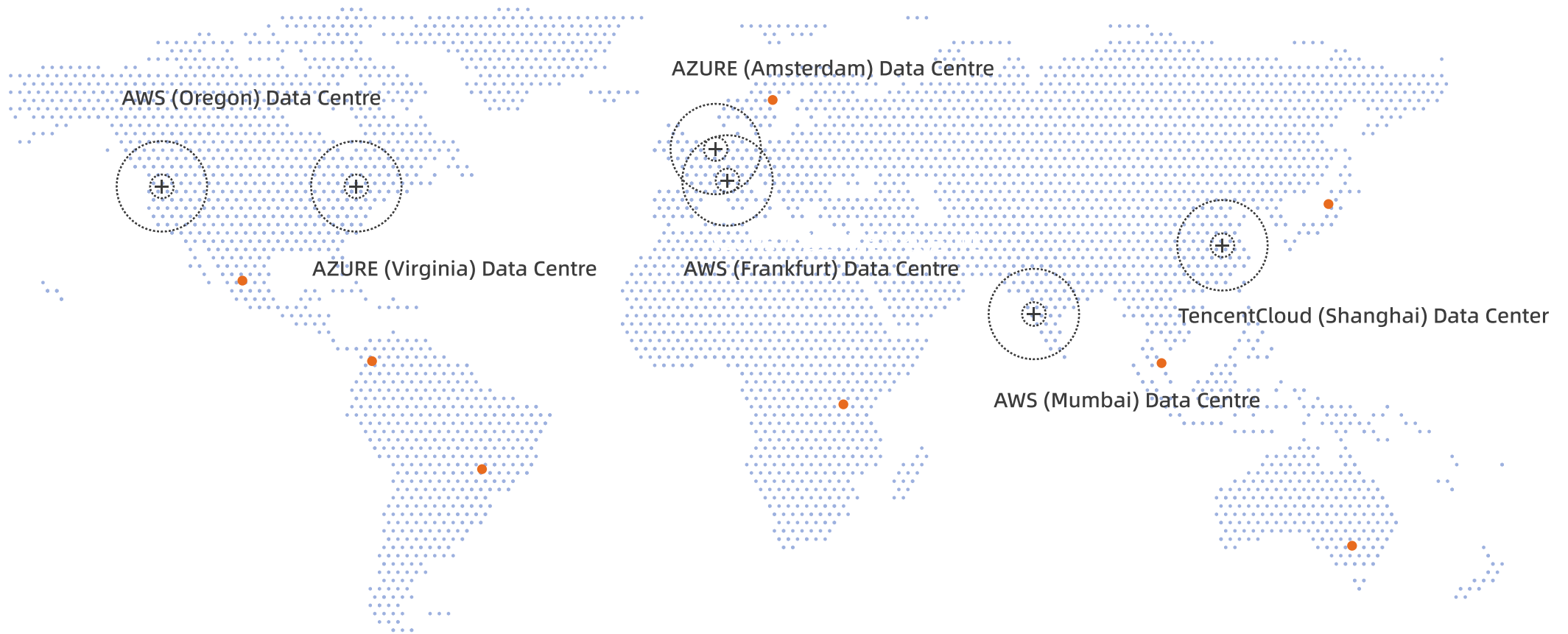


Basic Service Security of Cloud Platform

Tuya uses world-renowned and technologically advanced hosting service and cloud computing providers (such as Amazon Cloud, Microsoft Cloud, Tencent Cloud, etc.) to build its own cloud security management model, fully covering the security of data, access control, and cloud services, ensuring the full-chain security of data for users and customers when using, accessing, and storing information.

 <p>Security of data</p> <p>Security management of customers’ business data in the cloud computing environment, including collection and identification, classification and grading, permission and encryption, privacy compliance, etc.</p>	 <p>Management of access control</p> <p>Management of access rights to resources and data, including user management, permission management, identity verification, etc.</p>	 <p>Security of cloud services</p> <p>Security management of business-related application systems in the cloud computing environment, including the design, development, release, configuration and use of application and service interfaces</p>
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Scope of cloud security management of Tuya



⊕ Global Data Centers

AZURE (Amsterdam) Data Centre

AWS (Frankfurt) Data Centre

AWS (Mumbai) Data Centre

TencentCloud (Shanghai) Data Center

AWS (Oregon) Data Centre

AZURE (Virginia) Data Centre

● Edge Acceleration Nodes

São Paulo, Brazil

Stockholm, Sweden

Bogotá, Colombia

Nairobi, Kenya

Querétaro, Mexico

Singapore

Osaka, Japan

Melbourne, Australia

Tuya practices the business philosophy of “prioritizing user value in all aspects of operation”, and pays special attention to establishing a long-term and sustainable mutual trust relationship with customers. Starting from the perspective of the entire life cycle of data, our data security system adopts both “management” and “technical” means to carry out comprehensive and systematic construction to ensure data security in all links in the life cycle of data.

	Data collection	<ul style="list-style-type: none"> • 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 are collected while protecting users' or customers' right to know and under the necessary principle of the services. • We abide by 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	<ul style="list-style-type: none"> • Tuya Cloud provides different data storage services for different business scenarios, and uses AES256 to encrypt and store customer or user data. Sensitive data are 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Tuya abides by 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 right to decide on data retention strategy and inform Tuya in a timely manner that such data are for service purpose, etc. When customers request to delete the data or have the data returned, we shall follow such clear instruction.
	Data transmission	<ul style="list-style-type: none"> • 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 the Tuya's solution undergoes strict integrity verification and communication certificate verification. For special contents including passwords, they are transmitted using irreversible encryption or desensitization technologies.

Tuya's management measures in the entire life cycle of data

We have formulated a comprehensive data leakage emergency plan and emergency response mechanism. In accordance with the Tuya Security Incident Emergency Plan, the Information Leakage Incident Emergency Plan, the Emergency Response Plan and Handling Policy, systems and regulations, we have the capabilities to make correct, orderly and efficient emergency response to various types of asset and security risk events, effectively ensuring the normal operation of business. We regularly carry out offensive and defensive drills as simulations to the occurrence of data leakage incidents, so as to improve the blocking, detection and response capabilities of our security protection system.

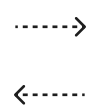
External Audit and Certification

Tuya complies with domestic and international information security standards and industry requirements, integrates compliance requirements and standards into our internal control framework, as well as our cloud development platform and products. We regularly carry out internal and external audits and certification work related to cyber security on the cloud service platform and internal systems.

During the Reporting Period, the internal and external audit projects that have been carried out and passed during the Reporting Period are as follows:

Internal audits

- Regularly carry out an internal security audit project every year
- Test contents include 2 offensive and defensive drills and 2 network-wide asset penetration tests









External audits

- SO 27001, ISO 27017, ISO 27701, CSA STAR, CSPEC level 3 protection annual audits
- AICPA SOC2 TYPE II & SOC3 audits
- App security privacy compliance detection



Tuya has obtained and renewed numerous external cyber security certifications:

 <p>EU's General Data Protection Regulation (GDPR) Certification</p>	 <p>California Consumer Privacy Act (CCPA) compliance audit</p>	 <p>China Cyber Security (Level 3) Protection Filing Certification</p>
 <p>AICPA SOC 2&3 compliance control measures and targeted audit</p>	 <p>The Personal Information Protection and Electronic Documents Act (PIPEDA) in Canada and Québec Bill 64</p>	 <p>Privacy policy and privacy-related controls - TRUSTe Certified Privacy</p>

The certifications of security management system that Tuya has obtained include ISO/IEC 27001:2013, ISO/IEC 27017:2015, and ISO/IEC 27701:2019, and CSA Star gold medal. We regularly conduct information security-related audits and assessments every year to improve our supervision and protection levels in terms of cyber security system operation, information security and privacy protection.

 <p>ISO 27001 certification</p>	 <p>ISO 27017 certification</p>	 <p>ISO 27701 certification</p>	 <p>CSA STAR certification</p>
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Employee Cyber Security Training

Tuya attaches great importance to the construction of internal cyber security culture and the cultivation of security awareness. We actively carry out training related to cyber security, and update and publicize data security-related legal risks, preventive measures, technical means and other related knowledge in a timely manner. Upon the promulgation of latest laws and regulations related to data security, the security compliance team and legal team will timely identify and analyze the requirements and the impact thereof, and interpret and publicize relevant laws and regulations in the compliance information bi-monthly newsletter through Tuya’s internal security compliance service account in WeCom. Every year, we carry out various security compliance learning, launch training courses, and conduct a security compliance awareness exam covering all employees.

During the Reporting Period, Tuya cyber security training activities reached



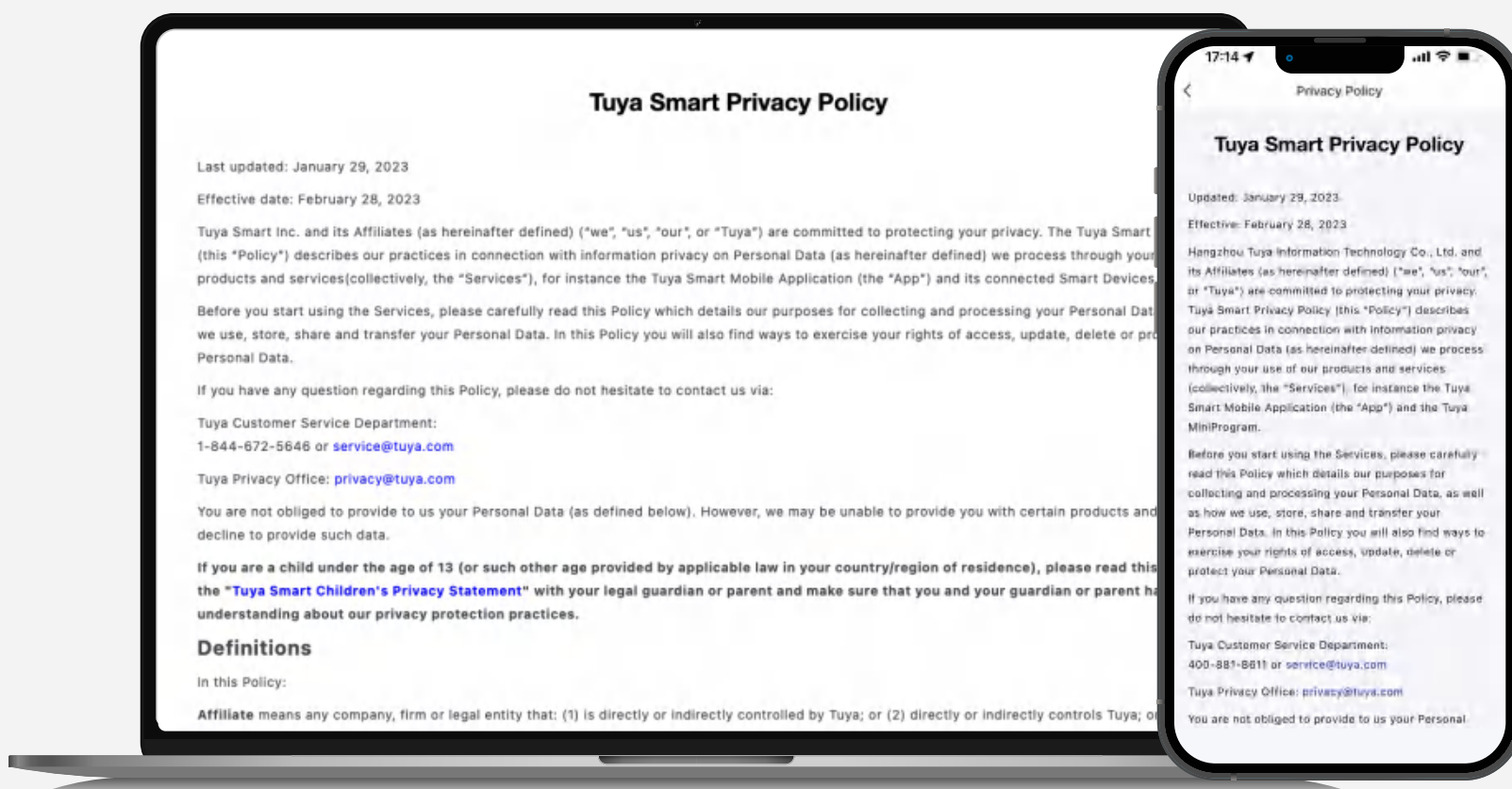
Tuya’s compliance information bi-monthly newsletter



Tuya’s security and compliance awareness training and exam

Protection of Personal Information and Privacy

Tuya attaches great importance to the protection of personal privacy of end users, and complies with the relevant laws and regulations applicable to where we operate, explicitly defined that the ownership of data belong to individual users. Based on the core principle of minimizing retention period of users' personal information, we have formulated the Tuya Data Retention Strategy. Tuya promises that the retention period of users' personal information is the shortest time necessary to achieve the purpose. If the retention period is exceeded, we shall delete or anonymize the user data on request. We have issued public policies on privacy protection such as the Privacy Policy and the Third-Party Information Sharing List to further clarify and inform end users and customers of Tuya's commitment and practices in terms of personal information and privacy protection.



The Privacy Policy of Tuya

Tuya strictly follows the principles of lawfulness, justifiability, necessity, and integrity and has formulated the “seven principles of user information processing”, ensuring the rights and autonomy of user rights to the greatest extent while providing high-quality services. Users are provided with the right to know, the right to access, the right to be forgotten, the right to delete information, the right to rectify, the right to restrict processing, etc., to build a comprehensive personal privacy protection system.

	Principle of consistency in rights and responsibilities	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 authorization 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 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 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 subject participation	Provide users with the means to access, correct, and delete their personal information, as well as withdraw consent, cancel their accounts, etc.

Tuya's seven principles of user information processing

IoT PaaS Green Device Solution

Under the background of global response to climate change and vigorous promotion of green and sustainable development, the demand for low-carbon and smart transformation of enterprises is becoming more and more pressing. With sensitive market insight, Tuya has created a variety of smart and green product solutions including smart gateways, circuit breakers, smart lighting, energy-saving electrical products such as smart sockets with low power consumption or with power statistics functions based on the capabilities and standards of the Tuya IoT cloud platform, which help customers quickly realize the development of green and smart products and seize market opportunities. Tuya helps customers and partners achieve green, low-carbon, energy saving and environmentally friendly solutions in more vertical industries by empowering various consumer electronics categories across household, commercial and industrial fields.

In 2022, Tuya has created a series of IoT solutions for energy-saving and efficiency-improving products, covering categories such as smart meters, charging piles, green energy solar inverters, and energy storage lithium batteries.

Tuya new energy charging pile solution

The smart charging pile solution created by Tuya includes all-round intelligent capabilities and product service support such as device access, IoT basic cloud service, business middle platform, SaaS and application system, after-sales and installation and maintenance services, etc., enabling charging pile products to realize a number of intelligent functions, empowering customers to charge on demand, saving energy and costs, and improving operating efficiency.

- Quantitative charging: charge according to the preset power on demand, stop when the set power is reached, better protect devices and meet personalized energy needs
- Scheduled charging: schedule off-peak charging according to the price difference between peak and off-peak electricity
- Delayed charging: switch on charging pile after a delay of 0-12 hours
- Provide detailed time specified warning queries in the time dimension and conduct remote diagnosis of faults
- Realize demand response management side and avoid peak hours
- Export electricity consumption data and electricity bill data report, provide data insight to better plan electricity consumption



Smart Industry SaaS - “4+1” integrated solution

Tuya Smart Business provides four standard SaaS, namely Smart Residential, Smart Hospitality, Smart Commercial Lighting & Building, and Smart Home & Community, as well as a comprehensive solution based on the product capability components of the above four standard SaaS, namely the “4+1” integrated solution. On the other hand, we have prepared a rich hardware product portfolio for our customers to help them select their products quickly and form the best fit with our SaaS products. The “building block” product architecture design of such an integrated software and hardware solution not only supports various vertical business smart scenario needs of different customers such as hotels, apartments, buildings, homes, and properties, but also meets the horizontal needs of their energy management categories by adopting the energy management model independently developed by Tuya. While realizing the intelligent transformation of the whole scenario, it achieves personalized energy saving and consumption reduction, more accurately meeting the needs of various indicators and goals in their own business scenario operations.

Case: Smart commercial lighting solution for Xtep flagship store

Xtep’s new ninth-generation image store project is located in the core business district of Shenzhen. Surveys found that offline stores generally face the following difficulties:

1 High operating costs

- high daily operating costs for physical stores
- inability to repair equipment damage in a timely manner
- large power consumption

2 Low conversion rate of marketing and promotion

- uninspiring physical stores image; few customers entering the store; low purchase conversion rate
- the dull lighting environment that fails to stimulate customers’ purchase desire
- poor customer shopping experience that shortens customers' staying time

3 Fragmentation of behavior data

- fragmented store sales and operational data
- inability to obtain insights of consumer behavior preferences
- hinder effective solutions for business decision-making

To echo the features of the business district, the customer planned to integrate cutting-edge elements such as fashion, technology, and intelligence to create an immersive shopping experience, attracting precise customer groups and increasing consumption frequency. At the same time, they aimed to achieve the goals of green, energy-saving, emission reduction, and cost reduction through smart systems. In order to create a benchmark store with a new image of Xtep, the customer decided to upgrade the store with intelligent transformation - using Tuya's smart commercial lighting solution.

Transformation highlights:

- Manage devices through the remote system on the mobile terminal, and create a comfortable shopping experience
- Smart linkage and efficiency-enhancing marketing of store customers to monitor customer flow and distribution area, focusing on consumer groups
- Visualized management of energy consumption data; large-screen data notification management; one click for reports
- Automatic execution of scenario-based energy-saving strategy to set up scenario templates such as day and night, peak hours, etc., according to needs and operating models
- Customer flow analysis to upgrade consumption experience: Smart Jack-o'-lantern lights are installed in the store, which can count the customer flow and its distribution area within the store, assisting in tracking future consumer demographics and upgrading their shopping experience.
- Lighting atmospheres to create an immersive shopping experience: The store uses smart lighting systems, such as the spotlights on the top of ceiling, which can be connected to mobile devices to intelligently control the brightness of the lights, and use different lighting atmospheres at different times to continuously optimize shopping experience and environment, improve consumers' shopping experience, and save energy and reduce emission.

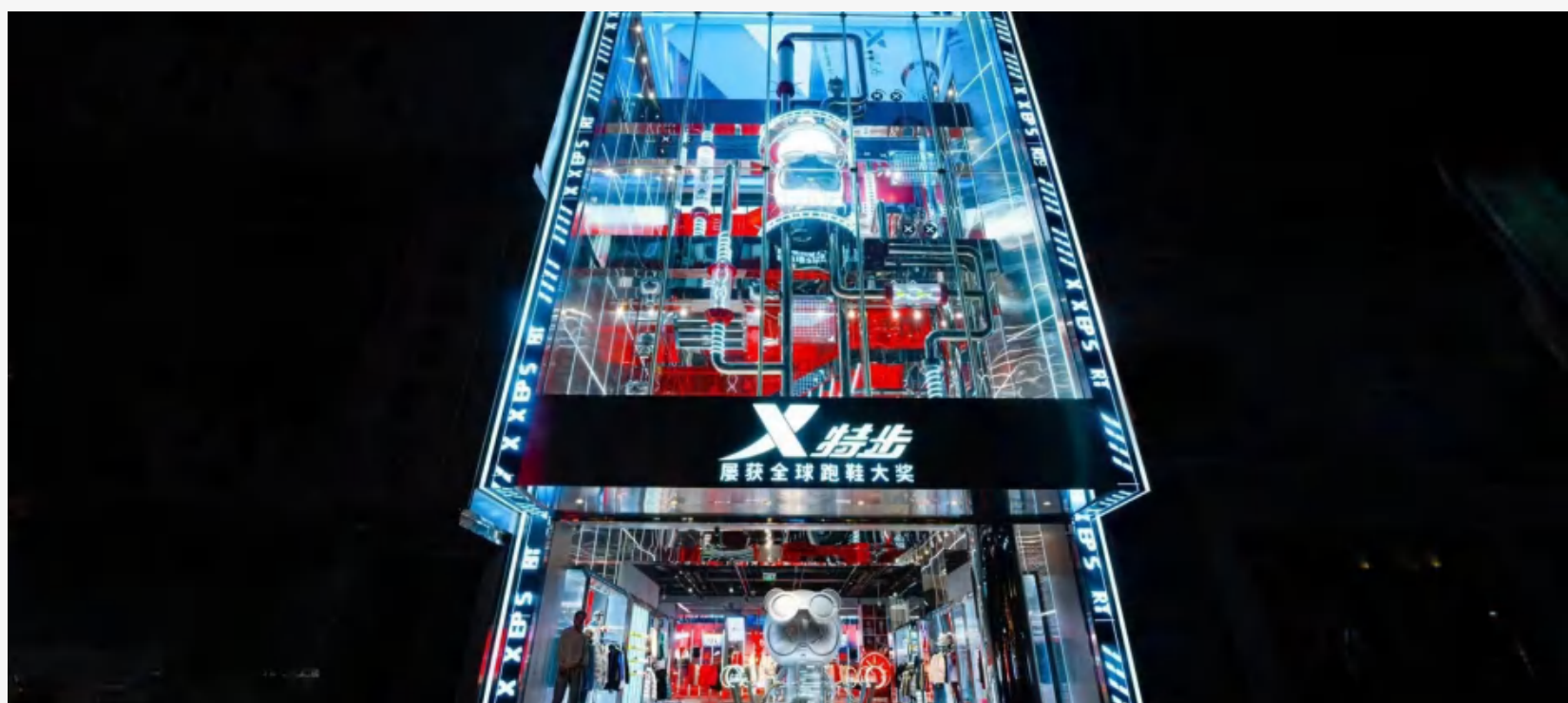
After the project customer used Tuya's smart commercial lighting solution

21.1 %

the energy consumption of the store was reduced

72 kWh

the average daily power consumption was reduced



Case: Smart commercial lighting solution for Himalaya 24h Urban Study Room

Himalaya 24h Urban Study Room raised their need to build smart and unattended chain stores and manage the status of all operating stores at the headquarters. Tuya's smart commercial lighting solution provides a smart and flexible operation scenario for Himalaya 24h Urban Study Room, which can automatically adjust the brightness of lighting and operation status according to customer flow, and monitor energy consumption data, providing great convenience for digital operation management. Tuya's smart commercial lighting system can also be integrated with smart facilities for convenience services such as shared power banks, shared charging piles, and vending machines by flexibly selecting multiple scenarios, which greatly improves user experience.

As a complete commercial lighting IoT control system supporting multi-protocol compatibility, Tuya's smart commercial lighting solution greatly satisfies the device management and energy management needs of green buildings.

Smart commercial lighting can help achieve:

- Visual device management
- Energy consumption classification and sub-item statistics
- Alarm and abnormal alert
- Automated permission control management
- App SDK docking and API interface integration
- A variety of application scenario APIs to meet user insight analysis needs
- App control and flexible management

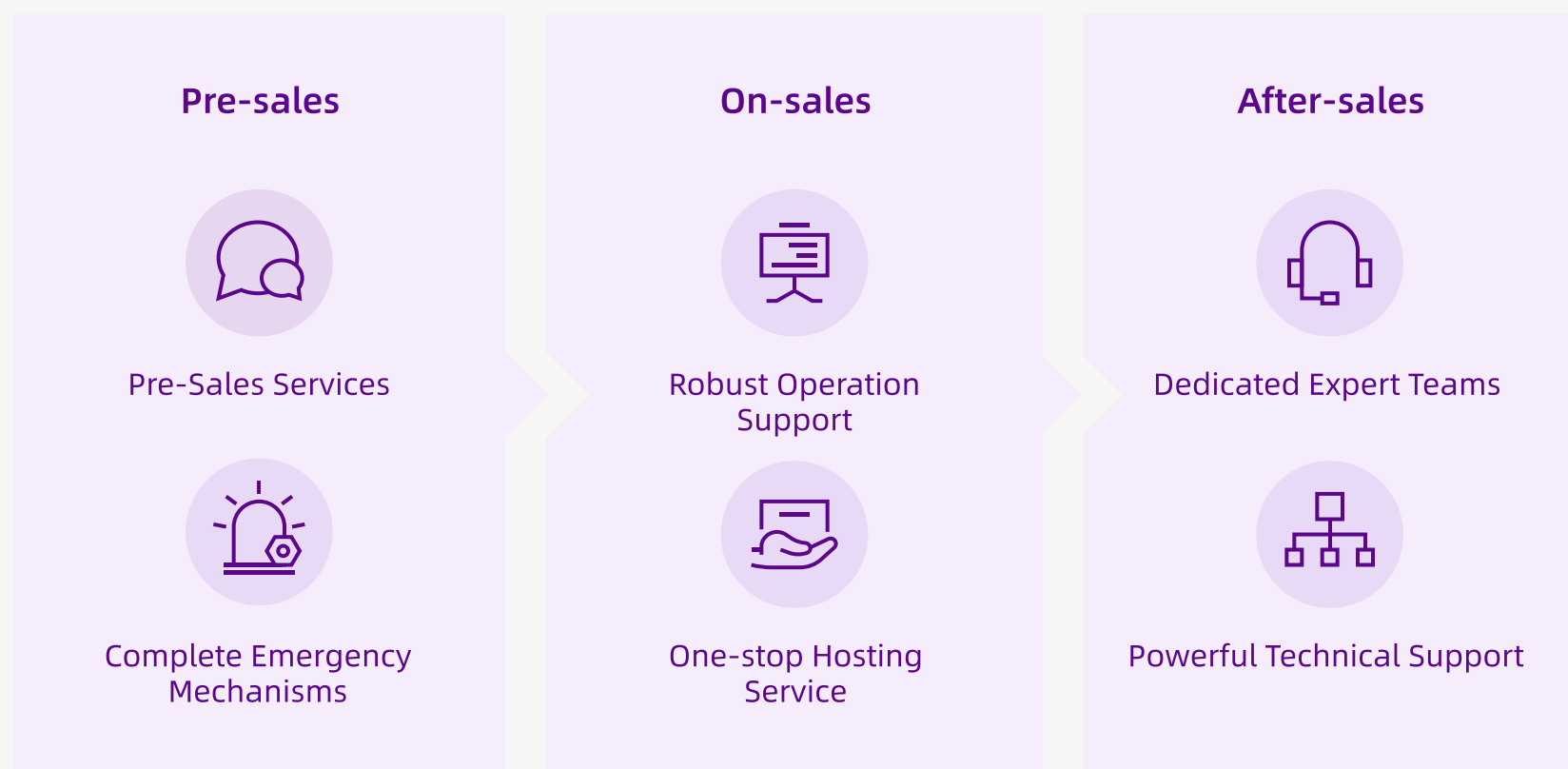


In the future, Tuya Smart Business will continue to use the form of integrated software and hardware solutions to help more partners lead the trend in creating smart commercial scenarios, incorporating organic linkages between smart stores, smart buildings, smart communities, smart digital business circles, and smart hotels, playing more active roles in the field.

Corporate-level IoT solution - Cube smart private cloud ("Cube")

The Cube smart private cloud product of Tuya can help developers build a scalable private IoT platform that handles device connection and management, application development, and data analysis, becoming the "best assistant" for customers' digital and intelligent transformation. As a smart private cloud software product, Cube provides enterprises with a digital base incorporating multi-channel device connection platform, device management platform, scenario visualization platform, AI functions and other capabilities to enhance the independent IoT management capabilities of enterprises. Brand, channel and industry customers can carry out secondary development and develop their own IoT platform applications by leveraging Tuya's rich open platform OpenAPI (Open Application Programming Interface), App software development kit ("SDK") and other open source software.

For large-scale corporate customers with complex businesses and high data security requirements, Cube can help them build IoT platforms and business independently, flexibly and cost-effectively, save R&D costs, create intelligent scenarios connecting all things, build a rich and exclusive smart ecology, and gain a competitive edge amid fierce market competition.



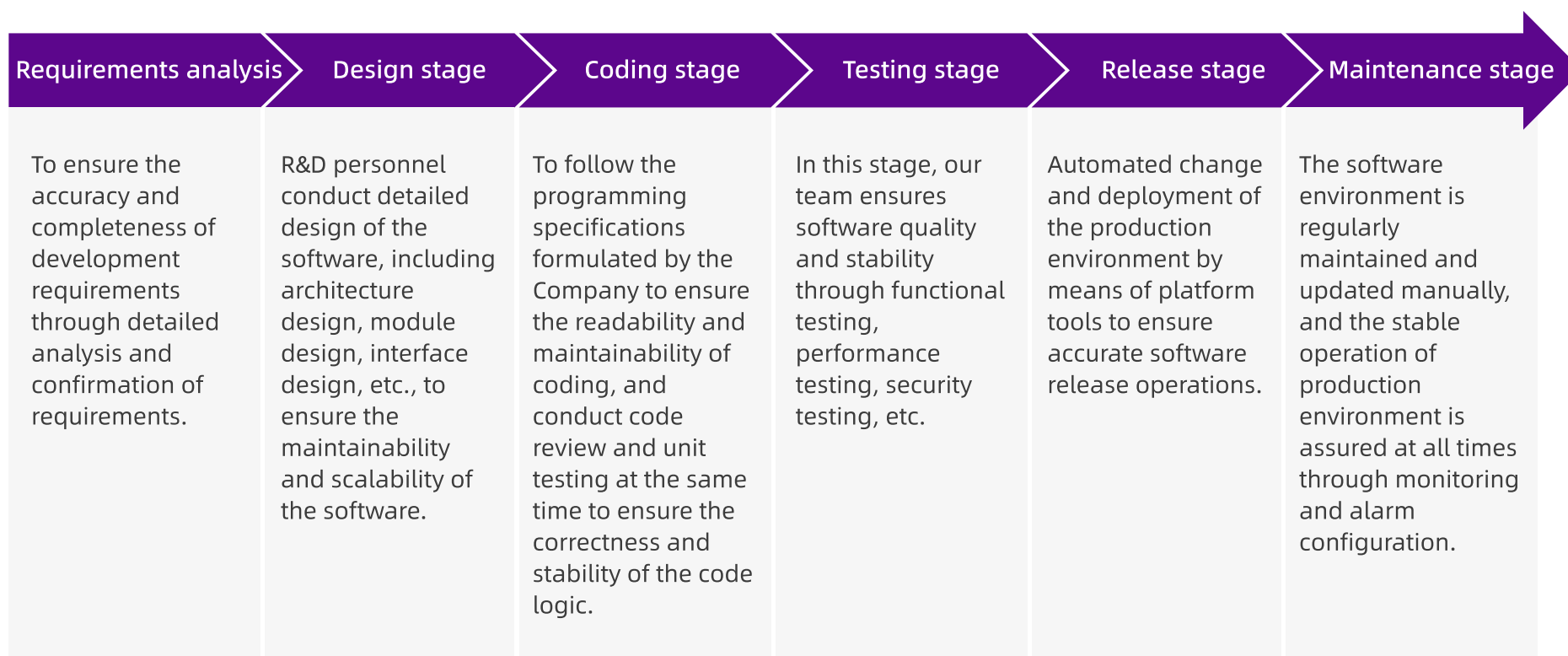
A three-end (cloud, device end, and APP end) integrated solution

Quality Assurance


Software Quality and Delivery

Tuya has always been committed to providing high-quality software products and services. Whether it is software and technology for in-house use, such as Tuya IoT cloud platform, or customer-oriented software delivery, we have been following the highest standards to ensure the Tuya quality.

We put assurance on software quality through the following software development process mechanisms:




In order to efficiently and accurately execute the above-mentioned R&D process, Tuya has self-developed relevant assurance tools:




Project management platform

In order to ensure the strict execution of the process, Tuya builds and uses a self-developed project management platform, and tracks the implementation of the project process throughout the chain from demand collection to software development and delivery, so as to ensure every stage of software development can complete the set goals accurately and on time.



Operation and maintenance platform

The Company's self-developed DevOps platform can realize automatic code submission, review and release of the entire software during the software development and maintenance stage, automatically monitor the production environment according to the configured alarms of the system configuration after the software goes live, and notify the relevant person in charge in real time through text messages, emails, etc., to achieve 7*24 assurance of stable operation of production environment.



Research and testing platform

In the software testing stage, Tuya uses the self-developed research and testing platform to return automated test cases to avoid the impact of functional changes on the original business; at the same time, track testers enter and manage the use cases of functional changes to ensure test case coverage and improve software quality.

To sum up, we will carry out strict control and management at all stages of software development to ensure the quality and stability of software.

Hardware Component Quality

As an all-in-one complete product, apart from cloud deployment and App end developing capabilities, our IoT PaaS product includes an IoT cloud module embedded with Tuya OS operating system software. In addition, our smart device distribution business that “provides convenience to customers” also includes the purchase and sale of smart hardware devices. Besides assuring the security of Tuya’s cloud platform and software delivery, we recognize that in integrating products, the delivery quality of excellent hardware components also enables Tuya to provide corporate customers with high-value and excellent IoT integrated products and ensure the best IoT device experience for end users and stability as our core business barrier. We have established a complete quality management system, an assurance system centered on quality which deepens the concept of quality control. We empower the industrial production line of upstream and downstream through technological means to improve the delivery quality of finished smart devices, and at the same time join hands with industry partners to create high-quality standards in the IoT industry.

Tuya strictly abides by the Product Quality Law of the People’s Republic of China, the Consumer Rights Protection Law of the People’s Republic of China, 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 staged 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 to provide for vertical management and product quality assurance. We passed the ISO 9001:2015 quality management system certification in 2018, and have always been committed to continuously improving and refining our quality system and product quality. During the Reporting Period, we successfully passed the annual audit of ISO 9001 certification with the audit result of “zero non-conformities”.



Tuya’s ISO 9001 quality management system certificate

Product Full Life Cycle Management

We integrate quality control measures and management details into the full life cycle process of products, and create quality assurance measures based on the two dimensions of product R&D and product manufacture.

R&D project management

- Product pre-R&D and feasibility analysis
- Implement the full life cycle control process comprising engineering verification test (EVT), design verification test (DVT), small batch process verification test (PVT), mass production phase (MP), end of life cycle (EOL) full life cycle control process



Project task platform management

- Create tasks with task templates, push forward to responsible persons, and track project progress to ensure quality and quantity
- Conduct design review, printed circuit board (PCB) design review, trial mass production review and other review management through the platform, strictly controlling each node of project



Design issue database management

- Build a reliability use case library
- Carry out aging tests to prevent product quality problems caused by design and R&D risks

On-site team for outsourced factory management

Tuya Inc. has established an on-site team for production factories comprising engineers, Quality Assurance (QA) and Quality Control (QC) personnel, who are responsible for solving production technical problems, analyzing production test abnormalities, and controlling product quality, respectively

Tuya's self-developed production management platform Production Management System (PMS) empowers factories

Tuya uses the self-developed production management platform PMS to empower outsourced factories to perform system information interaction and production operations. On the PMS, the factories can realize functional modules such as material specification and process file download, work order management, production process tracing and fault prevention, quality management, factory performance assessment and confirmation

Quality assurance for product hardware component manufacture

As an IoT cloud development platform that helps enterprises to realize the intelligent transformation of devices , the cloud, App, and edge software capabilities provided by Tuya need to be closely integrated with various hardware including IoT chips. The prerequisite for IoT devices to provide end users with various software and scenario capabilities is: safe and reliable device use, real-time and stable connection and response. These aspects will be affected by software and hardware compatibility, hardware performance, hardware design, factory production technology and process and other aspects.

Therefore, Tuya has been active in obtaining various certifications for smart hardware products to ensure the best delivery and reputation of our products and functions. As of the end of the Reporting Period, we have passed ioXt certification for 2 Apps and 9 cloud modules, as well as the Capability Maturity Model Integration (CMMI) Level 3 certification. Our smart IoT products fully comply with the ETSI EN 303645 consumer electronics IoT product security technical standard and the following standard certifications.

Product Standard Certifications



ioXt certification

ioXt certification is the world's authoritative and only industry-led global IoT security certification program. The ioXt Alliance is jointly initiated by technology and device manufacturing giants such as Google, Amazon, T-Mobile, and Comcast, aiming to, through products and Apps with ioXt SmartCert, boost confidence of consumers and retailers in this highly interconnected world.



ETSI EN 303645 product security technical standard audit

ETSI EN 303645 is a consumer electronics IoT product security technical standard issued by the European Union. This technical standard mainly stipulates the cyber security of consumer IoT products and related services, and also includes some commercial IoT products into its scope, with an aim to establish a security line of defense for consumer IoT products and protect user privacy. The standard also helps IoT products comply with design security requirements and standards, and supports global IoT product cyber security and European GDPR compliance. The IoT law currently being promoted in the U.K. is also based on the technical requirements of this standard.



CMMI Level 3 certification

The Capability Maturity Model Integration (CMMI) is the latest version of the CMM model, and 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 demonstrate 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

CE (Conformity of Europe) certification is a certification that meets European requirements. The CE logo is a compulsory certification logo in the EU market. All products with the CE logo can be sold in the EU member states without the need to further meet the requirements of each member state, so as to realize free circulation of goods within the EU member states.



FCC certification

FCC certification is also known as the U.S. Federal Communications Commission certification, and is the threshold for products with radio application, communications products and digital products to enter the U.S. market. FCC certification must be tested and approved by laboratories authorized by the government in accordance with FCC technical standards.



IC certification

IC is the abbreviation for Industry Canada. As a government agency, it stipulates the testing standards for analog and digital terminal devices, and is responsible for the certification of electronic and electrical products entering the Canadian market. Imported electronic products are required by IC to pass the relevant EMC certification.



SRRC certification

SRRC certification is a mandatory certification requirement of the Office of State Radio Regulatory Commission. Since June 1, 1999, the Ministry of Industry and Information Technology of the PRC has mandated that all products with radio component sold and used in China must obtain the Radio Type Approval Certification.



RoHS certification

RoHS certification is a certification for testing hazardous substances in electronic and electrical products, and is a mandatory standard established by EU legislation. The standard has officially been implemented since July 1, 2006, and is mainly used to standardize the material and process standards of electronic and electrical products, making them more conducive to human health and environmental protection.



REACH certification

REACH certification is an environmental certification for the registration, evaluation, authorization and restriction of chemicals contained in products. The main content of REACH is to require proof that daily-use products do not contain chemical substances that are hazardous to the human body. Therefore, all daily-use products produced in the EU or imported into the EU market must pass the registration, testing and approval of the content of hazardous chemical substances. Products with content exceeding the limit may not be sold in the EU market.



CQC certification

CQC logo certification is one of the voluntary product certifications carried out by the China Quality Certification Center. CQC logo certification focuses on safety, electromagnetic compatibility, performance, restriction of hazardous substances and other indicators that directly reflect product quality and affect consumers' personal and property safety. It aims to safeguard the interests of consumers, promote product quality, and strengthen the international competitiveness of products of enterprises.



CCC certification

CCC certification refers to the China Compulsory Certification, the compulsory product certification system of China. Except for some products that are no longer subject to compulsory product certification management, other products must pass CCC certification before they can be sold externally. It is a product conformity assessment system implemented in China in order to protect the personal safety of consumers and strengthen product quality control.



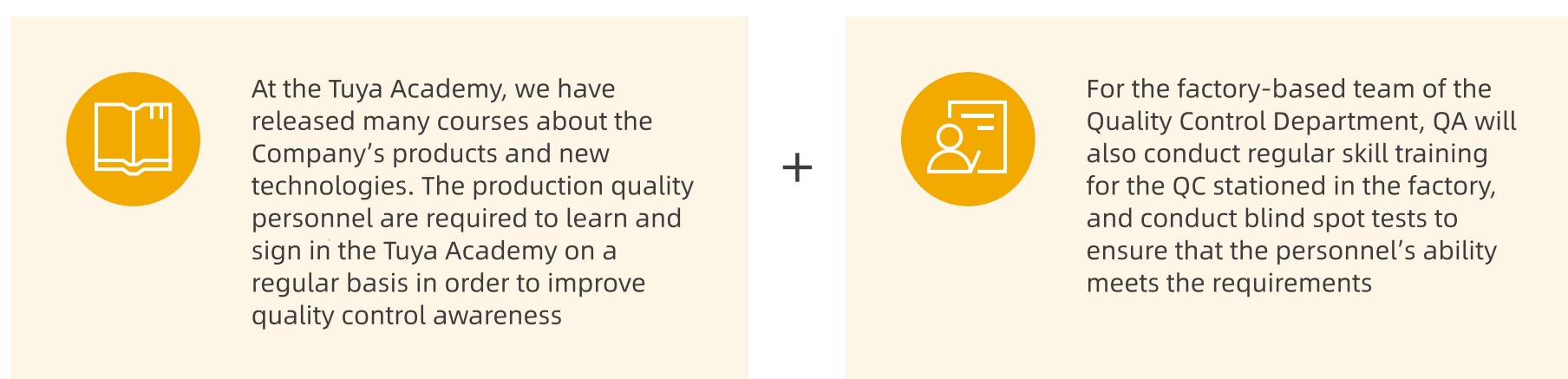
Smart Hardware (IT) Open Platform

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 the quality control of the manufacture process of products, we have issued 35 corporate standards, requiring production suppliers to strictly implement, and control the uniform high-quality standards of cloud modules and finished smart devices of various products such as smart home appliances, energy-saving products, sensor, gateways, lighting, electrical, etc. We prevent quality issues of products caused by design defects, substandard production and improper use of hardware components by following standards 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. We have formulated a complete recall process for unqualified products in the After-sales Customer Complaint Handling Process. During the Reporting Period, Tuya did not experience any product recalls due to safety concern or impact on user's health.

Quality Training

In order to continuously improve the knowledge reserve of the quality management team of Tuya, we have created the Tuya Academy and the Tuya WIKI Platform. The production quality personnel of Tuya will regularly learn at the Tuya Academy to enhance their understanding of the Company's products and new technologies. We upload and regularly update relevant text materials such as production quality process, production cases and customer complaint cases involving product launch, software delivery and hardware components on the Tuya WIKI Platform, which can be accessed and viewed in real-time by the quality team personnel. When needed, we also conduct quiz assessments for all quality control personnel through the questionnaire system. For instance, during the Reporting Period, we carried out assessments and quality-themed training with respect to the Production Inspection Items for all employees of the quality team, with a total of 263 participants.



Diversified quality training modes of Tuya

Our software is self-developed by software development engineers, and hardware components are purchased from external suppliers. Therefore, Tuya attaches great importance to the product quality of suppliers. We empower them to improve product quality and quality control awareness by sharing our quality control philosophy. For example, as a part of Tuya's rich smart ecology, the quality of the finished smart devices selected by TuyaGo in terms of craftsmanship, performance, and appearance also represents Tuya's unique ingenuity and responsible attitude.

TuyaGo finished smart devices system operation training

On April 20, 2022, TuyaGo Quality Control Department joined hands with the suppliers' production department, quality department and process department to hold an offline training lecture on the Supplier Product System Operation Standards, which aimed at helping the factories of TuyaGo to establish a uniform product quality standard and improve the awareness of quality control.



Training on the Supplier Product System Operation Standards

Quality Standard Formulation

Tuya has joined the China Communications Standards Association and participated in the formulation of IoT-related standards, constantly leading the IoT industrialization into a new stage of development, and making positive contributions to the healthy and orderly development of the IoT industry. During the Reporting Period, we formulated the following industry standards (among others):

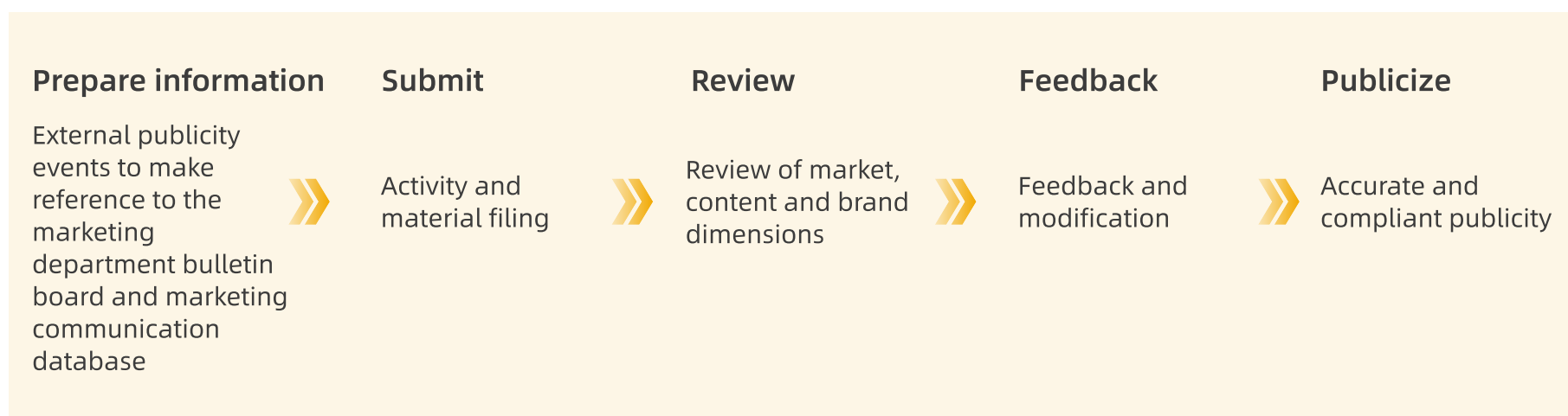
- ✔ T-CHEAA 0001.2-2019 Smart Home Appliances Cloud Interconnection Part 2: Information Security Capability Requirements
- ✔ T-CHEAA 0001.2-2020 Smart Home Appliances Cloud Interconnection Part 2: Information Security Technical Requirements and Evaluation Methods
- ✔ T-CHEAA 0001.3-2020 Smart Home Appliances Cloud Interconnection Part 3: User Interface Design Guidelines
- ✔ T-ZSPH 03-2020 Internet of Things Smart Home Security Technical Requirements
- ✔ T-CHEAA 0019-2021, T-CCSA 328-2021 Smart Home System Cross-platform Access and Authentication Technical Requirements
- ✔ T-SILA 003-2021 Bluetooth Mesh Smart Home Lighting Interconnection Specifications
- ✔ T-SILA 001-2022 Power Line Communication (PLC) Whole-House Interconnection Specifications (This standard was jointly formulated with the Shanghai Pudong Intelligent Lighting Association in 2022)

*This standard was jointly formulated with the Shanghai Pudong Intelligent Lighting Association in 2022

Responsible Marketing

Tuya attaches great importance to the external image of the Company, and strictly regulates its own marketing behavior, aiming to establish a good communication and interaction mechanism with customers and consumers. We strictly abide by the Anti-Unfair Competition Law of the People’s Republic of China, the Consumer Rights Protection Law of the People’s Republic of China and other applicable laws and regulations of the places of operation by ensuring that all external marketing activities are subject to strict compliance review, and that we are responsible for every customer, ecological partner and end user with a true and transparent attitude.

In terms of marketing and promotion, we have formulated a complete marketing publicity management approval policy including the Exhibition Hall Management Policy, the Publicity Approval Process Policy, and the Media Interview Standard Process, strictly stipulating the publicity standard of “no exaggeration, and interpretation based on facts”. In order to further standardize the accuracy and compliance of external publicity of various business departments, we strictly follow the Tuya Visual Assets Guideline, the PBT Marking Authorization Guidelines and other publicity standards to ensure that all external publicity activities and promotional materials of Tuya have been approved by the dedicated department and filed for record.



Approval process of Tuya’s external publicity events

Customer Service Platform Team

“Customer first” is the concept that Tuya adheres to and implements. We take solving customer needs as our own responsibility by setting up a full-time professional service platform team to be responsible for receiving inquiries from customers. We have formulated and complied with the Code of Conduct for Customer Service, the Customer Service Customer Complaint Handling Process and other standards and policies, so as to think from the perspective of customers, pay close attention to the quality of pre-sales, sales and after-sales services of products, and enhance service value and business advantages.

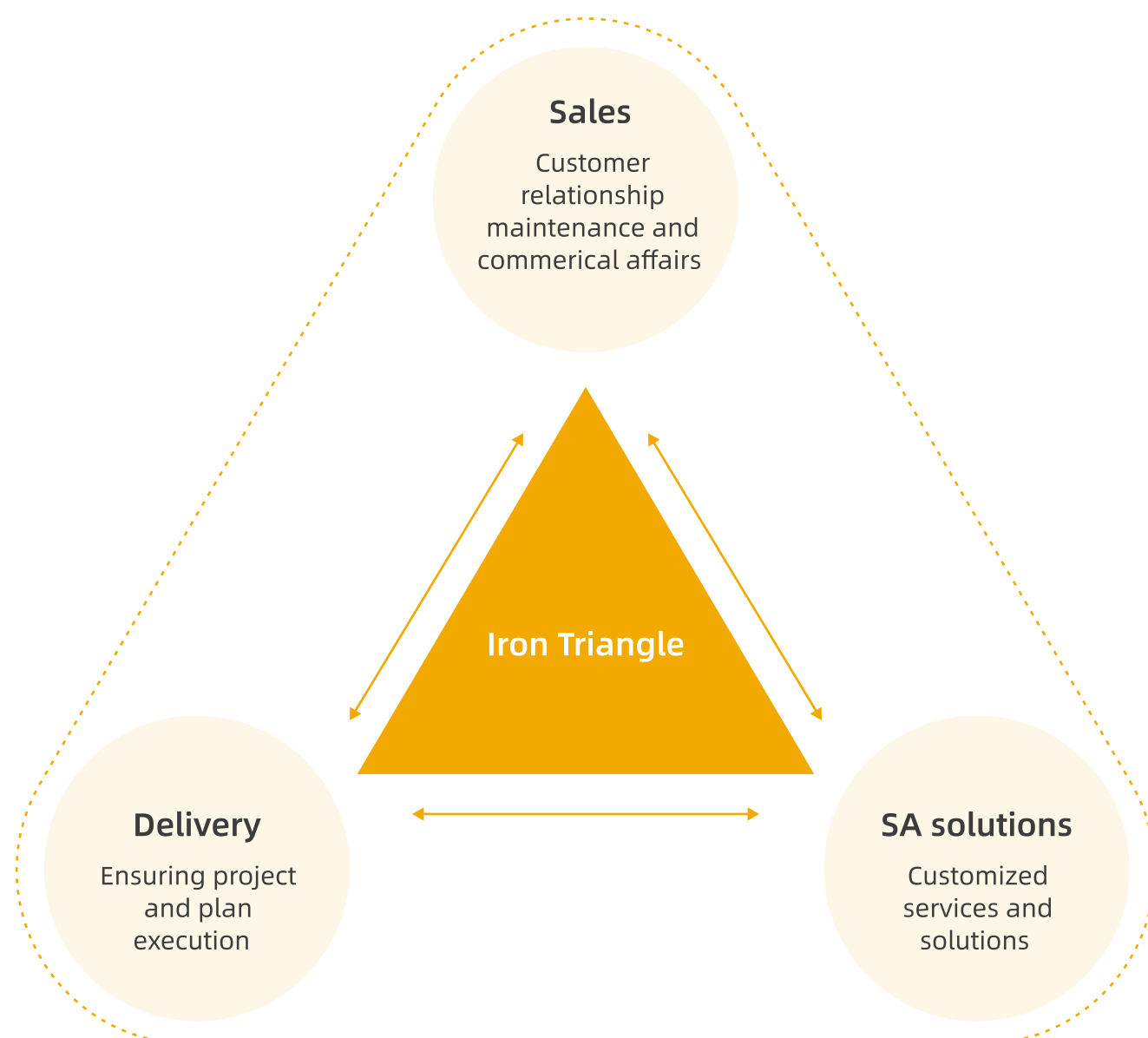


“Iron Triangle” Customer Sales/Service/Delivery Model

The macro situation in 2022 was both a challenge and an opportunity. Under this environment, enterprises that can provide customers with higher-quality and complete closed-loop services are more able to stand out, seize customers, and establish a stable cooperative relationship. In this regard, we actively carry out organizational reforms and model adjustments. Drawing on the successful experience of To-B corporate services, we have quickly built a back-to-back “iron triangle” structure with Tuya’s characteristics.

Our “iron triangle” structure comprises three roles, namely sales, SA solutions, and delivery. The role of “sales” is customer exploration, development, relationship maintenance and commercial affairs, the role of “SA solution” is undertaking the intelligent transformation needs of customers and providing targeted services and solutions, and the role of “delivery” has the task of ensuring the delivery and execution of established plans or projects in a rigorous manner. Although the three roles have different responsibilities, there is no hard boundary, and they complement each other according to the frontline situation.

The goals of the “iron triangle” structure are consistent. From planning to go-to-market, the “iron triangle” jointly participates in various stages such as target customer groups, plan design, R&D scheduling, input and delivery, etc., until a consensus is reached. We ensure that each new plan targets customer needs effectively, and follow up on its implementation to ensure the efficiency and value of input and output.



Customer Service System

Based on Tuya’s in-depth understanding of customer needs, we have created a customer experience improvement project based on the trinity of “sales, products and customers” with guarantee of customer flexibility as the first key element of service. The project ensures that customers can get a consistent service experience no matter which channel they are from.

We have established a tiered and categorized customer service system. For key customers of Tuya, we have a dedicated service team to establish a barrier-free communication and coordination mechanism between platform technical service personnel and project managers. When we receive customer demands related to product requirements, de-bugging and product upgrades, the project managers can directly synchronize the necessary information with the technical support personnel to jointly ensure rapid response and closed-loop follow-up of technical services. For other customers, we shall provide targeted services according to the type of issues.

During the Reporting Period:

533

the number of participants in our internal customer service-related training reached

Customers

Service channel: Customer chat group

We provide dedicated service teams for key customers, the members of which comprise senior technical support personnel. Project managers and dedicated teams serve simultaneously.

Sales

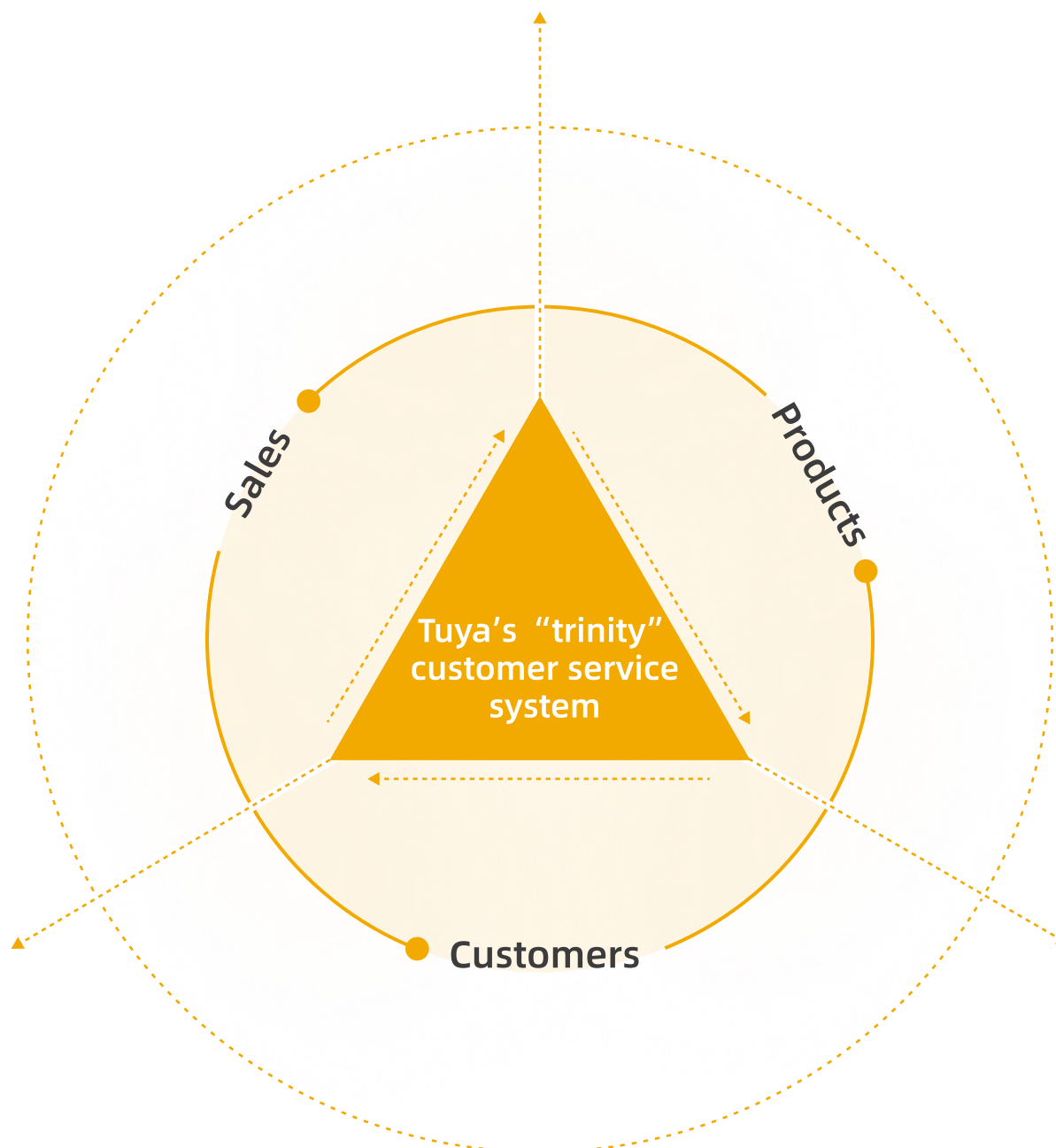
Service channel: Customer service consultation

Tuya’s global service hotline, online service platform, and technical work order answers provide comprehensive one-stop 7*24-hour services

Products

Service channel: IoT platform technical work order

Product technical services shall be divided into different levels and streams according to the type of issues, ensuring timely closure and resolution of product requirements, de-bugging and product upgrades



Customer Complaint Handling Channels and Process

We focus on building a “full-process, high-satisfaction” customer service response system, and provide customers with multi-channel service support, including but not limited to customer groups, platform work order feedback and other service forms. Customers may use hotlines, online consultation, e-mail, technical work orders, direct connect with business personnel and other ways to feed back their appeals.

Online consultation

Online consultation at Tuya’s official website service support portal

E-mail

Email to service@tuya.com to contact customer service personnel directly

Hotlines

400-881-8611 (Mainland China, Mandarin service)/
1-844-672-5646 (non-Mainland China regions, English service)

Technical work orders

Customers login to the IoT platform to submit a technical work order, and a dedicated staff member will carry out technical service docking

Business contact

Customers may get in touch through one-to-one service with Tuya business personnel



Customer Complaint Handling Process

Tuya adheres to the concept of customer first, and solves the demands of customers in terms of hardware, software, and services. We have established a complete customer complaint handling and feedback improvement mechanism, and formulated the Customer Complaint Handling Process, the Customer Complaint Rating Standards and other policies and guideline documents. Responsible persons shall be assigned to drive the responsible teams to implement solutions, and collate service cases into the service logs for filing. Our closed-loop service process not only guarantees customer satisfaction, but also promotes the improvement of Tuya’s own service quality.



Customer complaint handling process

During the Reporting Period, Tuya received a total of 136 complaints, with a **response and resolution rate of 100%**. All complaints received from customers have been properly resolved.

We have developed a comprehensive customer service assessment mechanism. Through quarterly or semi-annual dual-track assessment of values and performance or separate performance assessment, we improve service capabilities of personnel in terms of processing efficiency, satisfaction rate, quality inspection passing rate, rate of resolution in 24 hours and other dimensions.

Business line	Number of complaints	Response rate	Resolution rate
IoT PaaS	65	100%	100%
Services	44	100%	100%
Smart device distribution	27	100%	100%

Training and Awareness Raising

Tuya attaches great importance to the improvement of employees' customer service capabilities. We regularly provide relevant training and learning courses for employees to ensure the best service for customers. The training adopts a combination of online and offline methods, covering all stages from pre-job training for new employees, on-job training, to skill advancement, so as to ensure the improvement of overall service capabilities.



Tuya Learning Center

- Special courses and training on business and product dynamic synchronization, marketing plan promotion, system process, etc., for all employees
- 4 online courses per month on average



Pre-job training for new employees

- Before new employees joins the Company, they receive training on business knowledge, service standards, service skills, etc., with 100% coverage rate of new employees
- During the Reporting Period, a total of 9 sessions of new employee training were conducted, and each training session lasting for 5 working days



On-job training for employees

- We regularly conduct information security and work skills on-job training courses for employees, covering all employees on the job. Whenever new business is launched, we shall conduct the business knowledge training immediately so as to cover the mindset of dealing with problems related to the new business.
- During the Reporting Period, the service center conducted 4 diversified skills training sessions



Employee training of Tuya

Customer Satisfaction Survey and Results

We attach great importance to customers' satisfaction with Tuya's services and products. In the process of customer service, we have set up an instant service evaluation survey. After the platform technical service is completed, customers can directly evaluate the technical support service online based on the service response speed, professionalism, service attitude, and clarity of thinking. We also comprehensively collect opinions and feedback from product users and customers through monthly satisfaction surveys, hotline satisfaction surveys, online satisfaction surveys, and annual satisfaction surveys.

During the Reporting Period, our customer service center and platform technology service center were highly recognized by customers. **The satisfaction rate** for customer work order service of the platform technical service center **reached 93.46%**. As a leader in the IoT industry, Tuya will continue to improve our service capabilities and product quality as we always do, and constantly optimize the customer service and technical service process to create the best experience for customers.

Platform project satisfaction surveys

Every month, Tuya sends satisfaction survey questionnaires in relation to completed projects, covering all customers who have completed their project in the current month. We collect satisfaction information in all aspects, including the business stage, demand communication stage, project process, project implementation stage, and after-sales technical service stage, and timely feed back to the project team for rectification and improvement.

Annual satisfaction questionnaire surveys

Every year, we send questionnaires to customers who have logged on to the platform in the past year to collect their feedback and suggestions on our various service dimensions.

Hotline satisfaction surveys

When customers call the global service hotline of Tuya, they can evaluate the service call after hanging up.

89.24 %

annual hotline satisfaction rate

Online satisfaction surveys

Customers can evaluate the service after their online consultation conversation ends. In 2022, the satisfaction rate of various types of customers who submitted online consultation on the official website reached 94.01%.

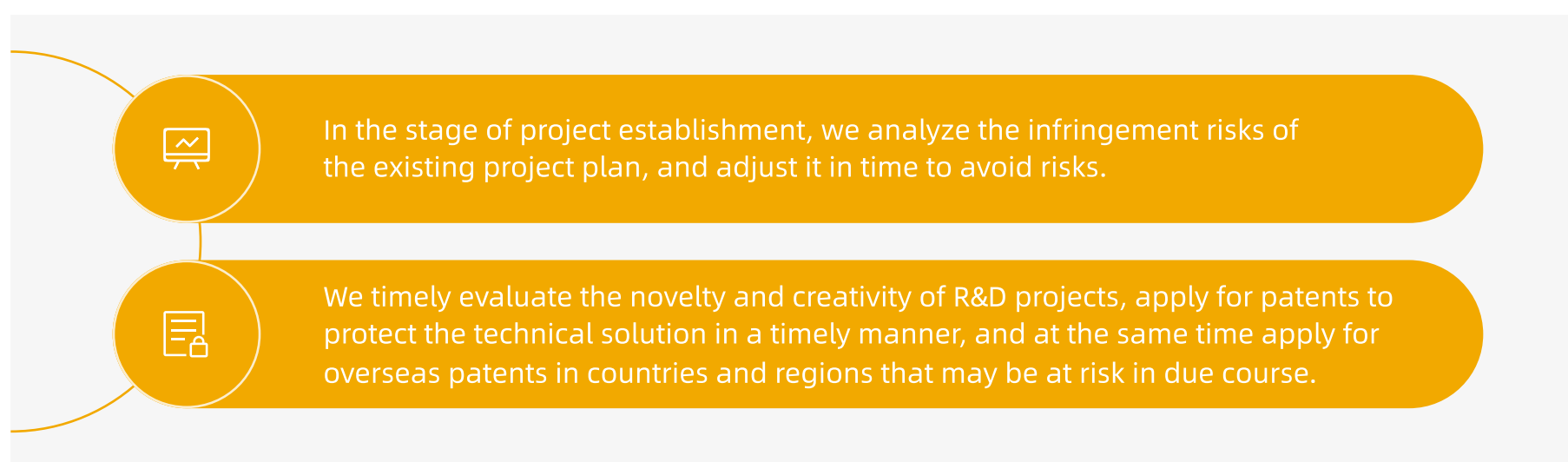
94.01 %

satisfaction rate

INTELLECTUAL PROPERTY RIGHTS PROTECTION

A good intellectual property rights protection mechanism is the foundation of the Company’s innovation management. Tuya puts independent innovation and intellectual property rights at the core of enterprise development, and comprehensively protects intellectual property rights of the Company in various fields such as patents and trademarks through the Intellectual Property Rights Management Regulations and other internal management systems. Employees are required to sign intellectual property rights declaration and confidentiality agreement when they join the Company, providing for the protection standards and ownership of intellectual property rights during and after their employment with the Company.

We continue to improve the intellectual property rights management system, and carry out classification and heirachy management according to the importance and frequency of use of the Company’s trademarks and patents, so as to improve the effectiveness of the Company’s intellectual property rights management. At the same time, we have adopted further strategies to mitigate intellectual property risks:



Tuya’s strategies to avoid intellectual property risks

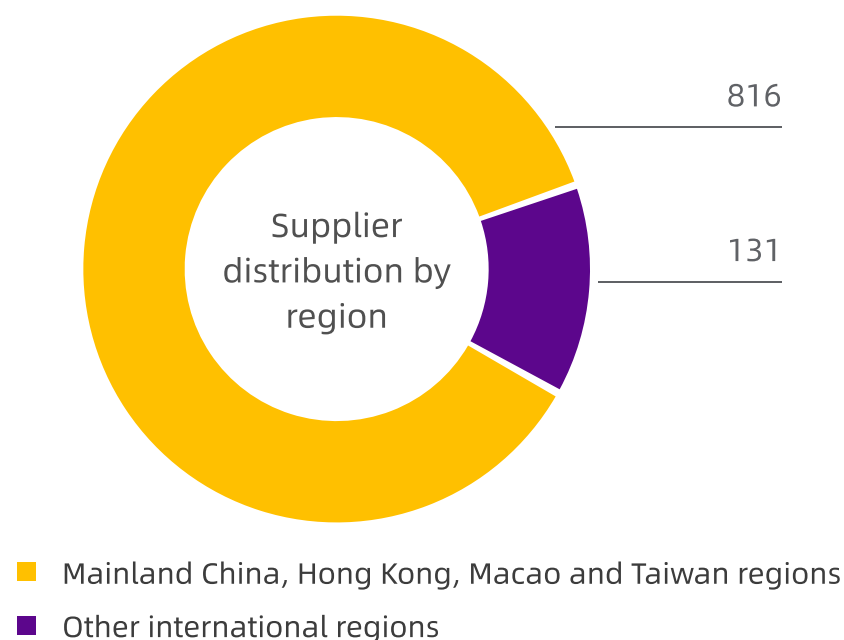
In order to enhance the Company’s awareness of intellectual property rights protection, we have established an intellectual property training system for different positions and levels of employees, and formulated training plans based on weaknesses in intellectual property rights, providing training for employees in all departments at least quarterly.

Training target	Main training contents
R&D and product personnel	Clarify the key contents of Tuya’s application for patent protection according to Tuya’s own technical characteristics and service contents
	Intellectual property risk assessment: carry out risk assessment in advance on the intellectual property risks that may be encountered in the product development and marketing process
R&D personnel	Standards for writing patent technical disclosure documents
Sales and R&D personnel	Conduct training on the process and steps of dealing with intellectual property risk issues encountered by customers or the Company

In addition, we have formulated patent reward standards in accordance with the relevant laws and regulations to encourage employees to continue to explore and innovate. As of December 31, 2022, Tuya has obtained a total of 449 patents, including 101 invention patents and 145 utility model patents; and a total of 135 copyrights, including 125 software copyrights, and has received several recognitions for its performance in intellectual property protection, for example, the Winner of China Haidian High Value Patent Cultivation Competition (2022), Patent Demonstration Enterprises, etc.

SUPPLIER MANAGEMENT

Tuya attaches great importance to the sustainable development of our own supply chain, continuously strengthen the supply chain management system, and provide extensive chances and business opportunities for the development of the IoT industry from multiple dimensions such as supplier onboarding, procurement, cooperation, assessment, and empowerment. We classify and record the data of suppliers according to various dimensions and statistical perspectives. As of the end of the Reporting Period, Tuya had a total of **947** suppliers, of which **816** suppliers are located in Mainland China, Hongkong, Macau and Taiwan regions, and the other **131** suppliers are located in overseas regions. The distribution of suppliers by region is as follows:



Supplier Onboarding

With reference to the product quality control system, Tuya has established a complete supplier review and onboarding system, and formulated a series of introduction programs and management standards such as the Supplier Management Program, the New Product Introduction Control Program, and the Inspection Control Program, so as to standardize supplier review, product introduction, and product inspection process. Tuya’s suppliers include suppliers of chip, hardware component, suppliers of cloud, software and other operating expenses. For instance, we use first-class cloud computing platforms of world-renowned cloud service providers such as Amazon Cloud, Microsoft Cloud and Tencent Cloud, and incorporate suppliers’ environmental, social and governance performance into the scope of review and examination. We constantly drive suppliers of various kinds to improve their own ESG management awareness and provide green and low-carbon products, so that we can co-create a sustainable IoT supply chain.

During the Reporting Period, we conducted onboarding reviews on 108 new suppliers, with **coverage of 100%**.

Supplier onboarding process of Tuya

- 1 Review of supplier qualifications**

Through issuing the Supplier Questionnaire, and collecting data from the credit investigation platform, we conduct a qualification review of the work teams, and examine the quality, delivery, and operation capabilities of suppliers
- 2 On-site audit of suppliers**

We set up a professional audit team to conduct on-site audit of suppliers, inspecting the performance of suppliers in terms of production management, quality control, supply chain management, and environmental control, and inform suppliers of the audit results via the Tuya Supplier Review Form
- 3 Business ethics agreement**

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

Supplier Assessment

During daily operations, Tuya evaluates and assesses various suppliers in different ways. In terms of amount, compared with software and operating expenses service providers, hardware components suppliers account for a relatively larger proportion of our overall product and service procurement due to their product characteristics, and as described in the “Product Quality” section, their nature is important. We conduct monthly performance assessments based on quality, delivery, cost and other dimensions for suppliers of hardware components and TuyaGo finished smart devices, and incorporate them into the annual performance assessment indicators. We formulate an annual audit plan for suppliers every year, and divide suppliers into four levels of management according to the assessment results of comprehensive dimensions. During the Reporting Period, we implemented the special annual audit exclusively on 17 core hardware suppliers, so as to assist the core hardware suppliers in reviewing and improving their annual performance. The results of the annual performance assessment would become an important indicator for the selection of excellent suppliers, and some low-quality suppliers failing to meet the audit standards would be terminated. During the Reporting Period, a total of 7 suppliers were selected as excellent suppliers of Tuya.

Supplier Communications

Tuya attaches great importance to communications, collaboration and technological empowerment with suppliers. As mentioned earlier, due to the special nature of hardware components such as chips, our extensive communication with suppliers mainly occurs between Tuya and hardware suppliers. We actively communicate with suppliers through various methods such as telephone calls, offline meetings, and on-site guidance to exchange each other’s needs, and listen to suppliers’ opinions, promoting the establishment of long-term mutually beneficial and win-win cooperative relations with suppliers. We regularly hold quality bi-weekly meetings with key suppliers to communicate and discuss topics such as new product management, finished product target achievement rate, after-sales customer complaints, summary of abnormalities, and environmental protection, greatly improving the high quality of delivery ability of suppliers.

Supplier Training

As mentioned earlier, due to the special nature of hardware components such as chips, our training with suppliers mainly occurs between Tuya and those of hardware components. Tuya formulate quarterly training plans for suppliers every year, mainly involving general standard training, similar component quality profile training, excellent improvement case training, etc. During the Reporting Period, we carried out special training for 37 major product suppliers who did not meet expectations in their monthly assessment, which contains suppliers with weak quality control of various materials and suppliers of key materials. The purpose of the training was to assist suppliers in improving their own product quality and management capabilities.

Special quality improvement training for tooling suppliers

During the Reporting Period, Tuya conducted special quality improvement training for 3 flashing fixture suppliers, and carried out supplier awareness sessions to ensure that the presentations were in place. The training mainly focused on the structure, line sequence, missing parts and components, wrong installation, and defective labels in the process of processing and assembly. Unified training and question-and-answer sessions were carried out. After the training, the product delivery passing rate of these tooling suppliers in 2022 was 95%, which was 6.3% higher than that before the training.



Smart Empowerment by Tuya Software

While maintaining close communication and exchange with suppliers, Tuya also combines its own value propositions and technological capabilities to explore technological empowerment, working hand in hand with our suppliers. During the Reporting Period, we maintained close contact and communication with suppliers by holding quarterly regular meetings to exchange production needs and technical weaknesses, explore technological solutions, and develop and reinforce improvement projects.

Surface Mounting Technology (SMT) process capability improvement project

Tuya actively communicates with core production suppliers. For the problem of patch quality inspection that cannot be solved in the production process, Tuya has independently developed and designed the SMT Scada system equipped with the Auto Optical Inspection (AOI) system full-process inspection module, which is able to collect device data and process parameters, upload them to the cloud for analysis and processing immediately, and control production tools and production auxiliary materials in real time through the data dashboard. This solution enables suppliers to realize smart manufacturing, strengthens full coverage of quality testing and traceability of production information, and effectively reduces product defect rates.

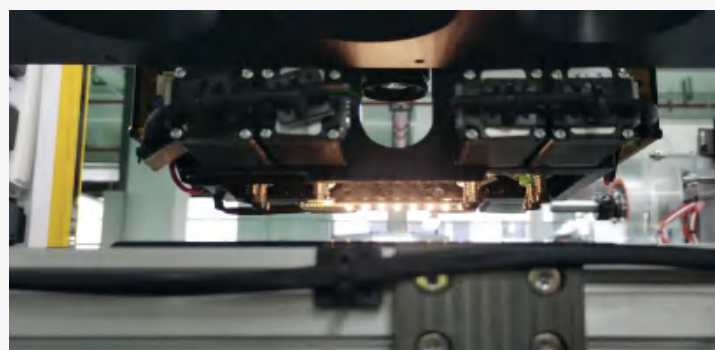


SMT Scada system workshop dashboard

We conducted SMT capability diagnosis and improvement for a production-related supplier, and provide skill training for the personnel assigned on the test side, effectively improving the production capacity of the factory. After continuous training and guidance, the production capacity of the factory has been increased from 2 million pieces per month to 4 million pieces per month.



Automatic test label printing



Testing and packaging all-in-one machine

04

PEOPLE-ORIENTED, WALKING TOGETHER HAND-IN-HAND

Tuya always implements the “people-oriented” talent concept, activates the vitality of talents through an all-round talent development system, and encourages employees to grow together with the Company. We attach great importance to employee rights and benefits, and are committed to creating an equal, diverse, and inclusive workplace atmosphere, so that every employee can enjoy “working at Tuya, growing at Tuya, and living at Tuya”.

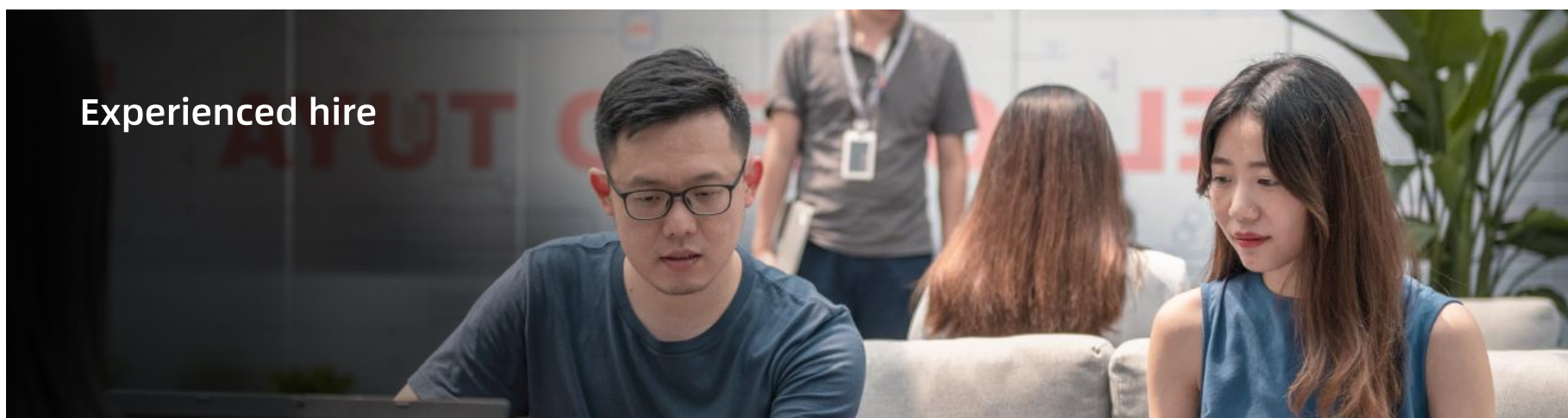


EMPLOYEE RIGHTS AND INTERESTS

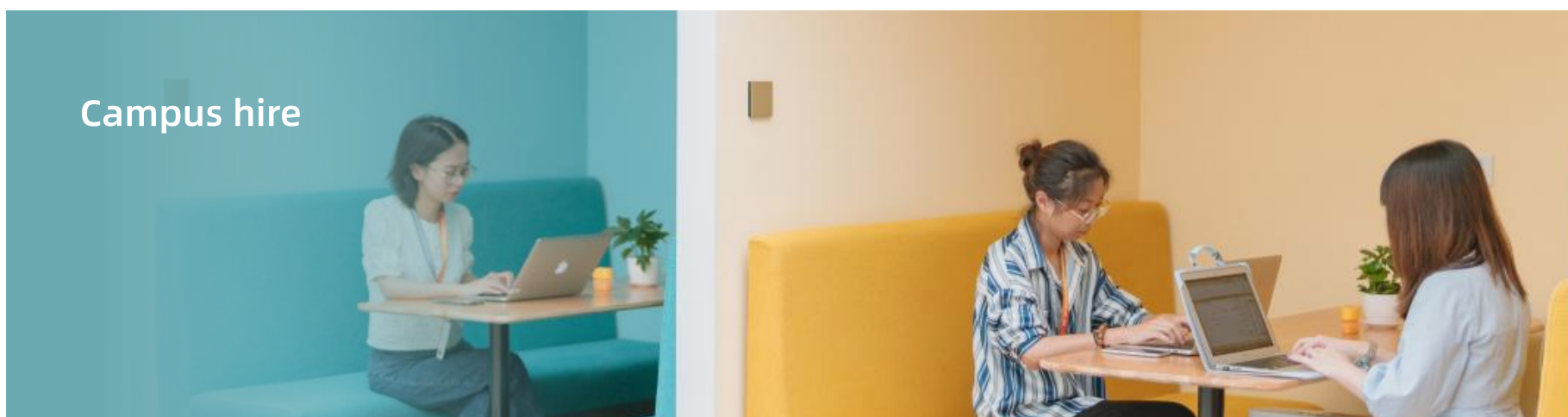
Tuya is committed to creating an equal, inclusive, fair and just employment environment for employees. We strictly abide by the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, the International Labor Convention, the Declaration of Human Rights, and other relevant labor and employee rights laws and regulations applicable to the places of operation as well as international conventions. Recruitment of talents is carried out in accordance with clear standards for talent selection and appointment.

Attracting Talents

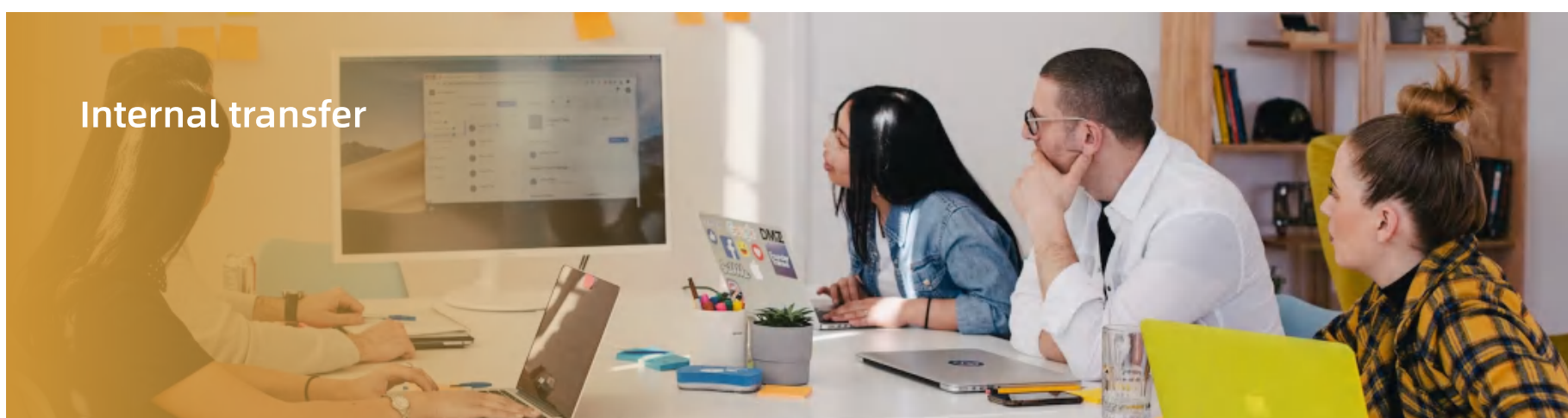
Tuya makes reasonable plans for the types and quantity of talents to be recruited according to the business development direction and business needs of the Company. We have formulated internal policies such as the Tuya Recruitment Management Policy and the Basic Human Resources Policy to systematically manage the entire recruitment process. We have established diverse recruitment channels. According to the Company's recruitment needs, we carry out targeted recruitment work to build a professional and diverse talent team.



Experienced hire



Campus hire



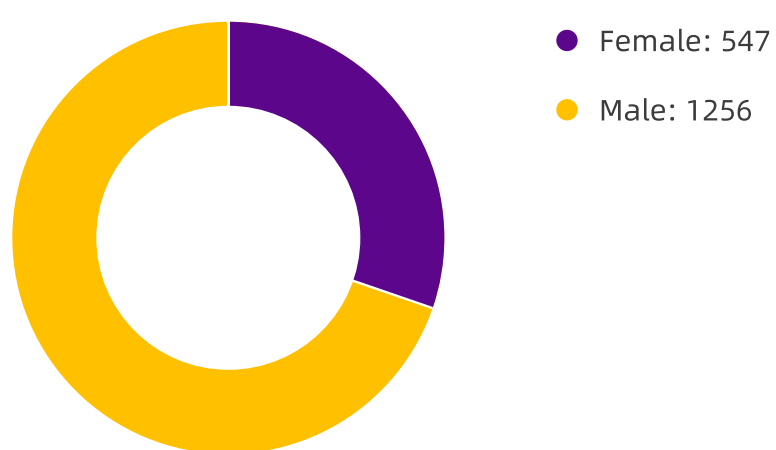
Internal transfer

Main recruitment channels of Tuya

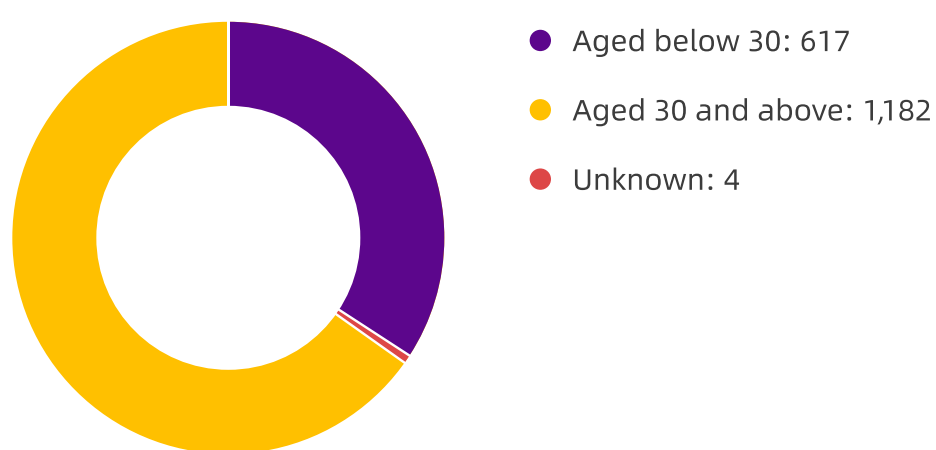
In addition, Tuya actively undertakes social responsibilities, recruits disabled persons in a targeted manner during the recruitment process, establishes cooperative relations with provincial and municipal-level disabled persons' federations, and actively participates in the job fair organized by the Hangzhou Disabled Persons' Federation to support their employment and livelihood improvement. As of the end of the Reporting Period, Tuya had a total of 1,803 full-time employees and 26 contract workers, including 4 disabled employees (two of them were severely disabled).⁶ In terms of ethnicity, we had 40 minority employees.

The classification of full-time employees was as follows:

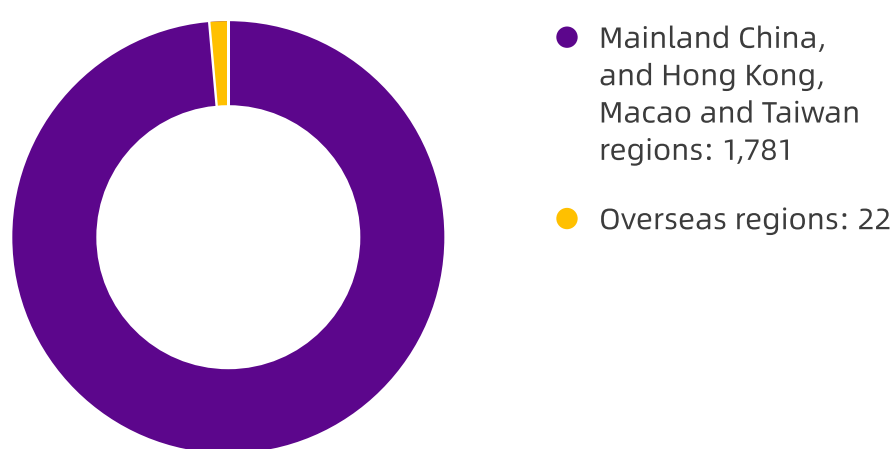
Number of full-time employees by gender



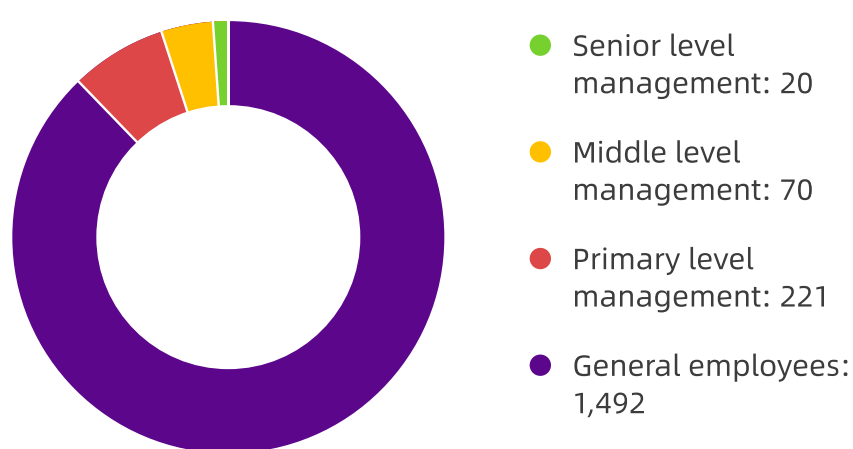
Number of full-time employees by age



Number of full-time employees by regions



Number of full-time employees by rank



*Note: 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.

Labor Rights

Tuya upholds the values of inclusion, diversity and equality, and is always committed to creating a friendly, equal and inclusive workplace environment for employees, and ensuring that all employees enjoy equal pay for equal work and equal development opportunities. Tuya adopts a zero-tolerance attitude towards the use of child labor and forced labor, and strictly controls the recruitment process. If child labor or forced labor is found, the Company shall deal with it in strict accordance with the relevant laws and regulations. During the Reporting Period, we did not find any use of child labor or forced labor.

Our commitment to diversity and inclusion goes beyond compliance and is an integral part of our value system. We uphold the principle of fairness and justice, strongly oppose any form of discrimination and unequal competition, and clearly stipulate in the Employee Handbook that it is strictly prohibited to treat employees differently due to ethnicity, age, gender, race, nationality, marital status, health condition and religion. In addition, we strongly oppose any form of workplace harassment, including but not limited to offenses, insults, gender or racial discrimination, sexual harassment, etc.

⁶ *The statistic scope of the number of employees is different to the salaried employees' data of the annual report.

EMPLOYEE DEVELOPMENT

Adhering to the concept of common development with employees, Tuya provides all employees with sufficient room for development. Through transparent talent promotion management and a complete talent training system, we constantly stimulate the potential of employees and encourage them to grow rapidly while embracing changes.

Employee Training

Talent cultivation is one of the engines for the sustainable development of an enterprise. We have formulated the Training Management Policy, constantly improved the internal training mechanism, and designed a talent training system that meets the positioning of employees at all levels using the Tuya Academy as a platform to satisfy different training needs and build a solid talent echelon.

Tuya's employee training project examples:



New employee training

For newly recruited employees: the main contents include the Company's basic information introduction, and through a variety of activities and a graduation ceremony we help newcomers integrate into the corporate culture better and faster.



Leadership training

For Team Leader (TL) employees: training around the ability model to improve management capabilities, including daily communication, team building performance management, recruitment and dismissal skills, etc.



Professional ability training

- Sales ability training: "Star Project" training activities for sales personnel of the Company to enhance their business capabilities through business learning and introduction, real case practices and other forms.
- Technical ability training: Tuya Matter special training mainly for product R&D, business and operation employees, including key strategies of technology companies, and introduction of Tuya Matter solutions.



Employee training at Tuya

We actively innovate training methods and provide all employees with an e-learning platform - the Tuya Academy. As of the end of the Reporting Period, the Tuya Academy has launched a total of 727 courses, covering product training, security compliance, leadership, personal development, technology, etc. In addition, we encourage employees to pursue self-growth and improvement by providing financial support for reimbursement of tuition fees, application fees, and qualification textbooks to eligible employees who participate in external training and further education.

During the Reporting Period:

7,344

employee-time
participated in training
conducted by Tuya

97 %

Coverage rate of Tuya's
employee training



Performance Management

We have formulated a set of standardized, clear, open and transparent performance management procedures, and carried out performance management work in an orderly manner. Through the two-way communication between the Company and the employees, employees are evaluated in terms of their performance level, learning ability, leadership skills, execution capabilities, knowledge and experience, and comprehensive appraisal to ensure the rigor and accuracy of the performance evaluation results and help employees achieve self-understanding and self-improvement. In addition, we also provide opportunities for internal transfers to stimulate employees to explore their potential, and further guarantee and encourage the positive flow of internal talents.

During the Reporting Period, we actively implemented the relevant provisions of the "Rules for Performance Management", and carried out performance appraisal of all employees every six months.

CARE FOR EMPLOYEES

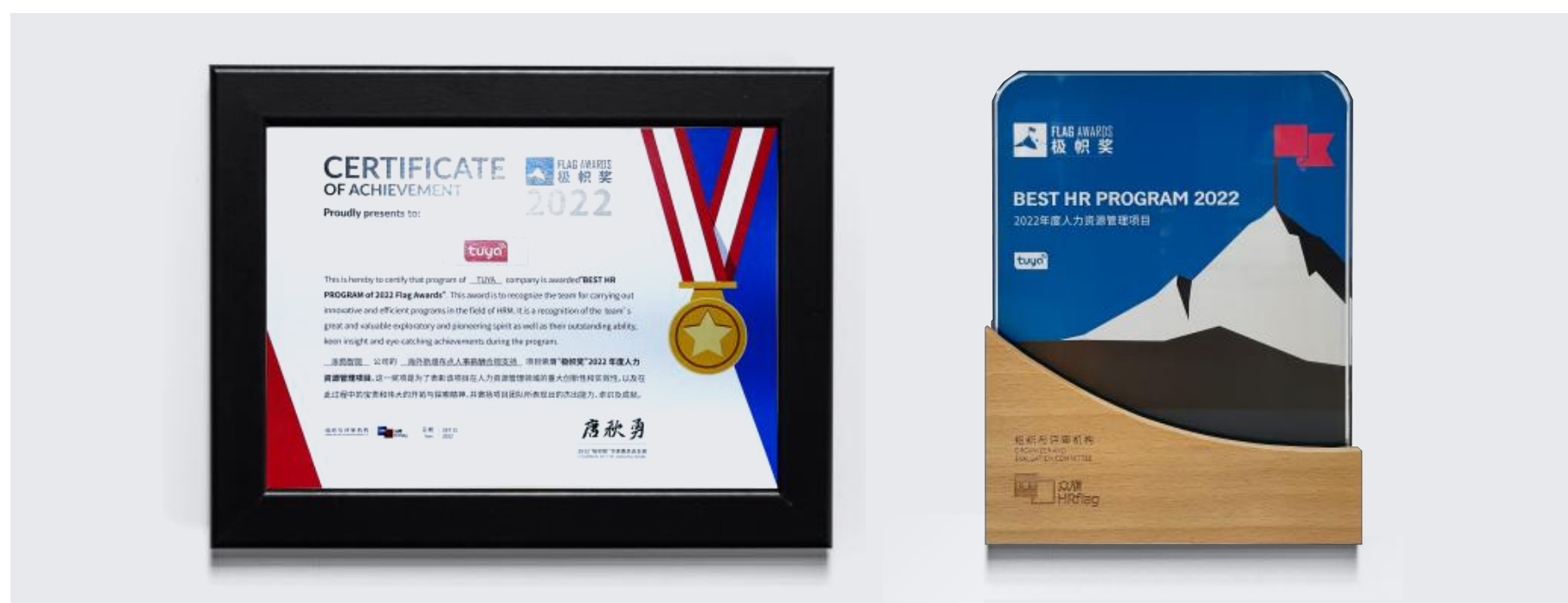
Tuya firmly believes that cherishing and caring for employees is the key to building a harmonious enterprise. We actively protect employee welfare and occupational health, continuously expand and deepen employee communication channels, and strengthen employee communication exchanges. In addition, we organize a variety of employee activities to improve team cohesion.

Remuneration, Benefits and Equity Incentives

We have formulated and thoroughly implemented the internal management policies such as the “Rules for Remuneration Management” to provide all employees with industry-competitive remuneration packages and comprehensive welfare protection. In order to stimulate the vitality of employees, a complete remuneration and incentive mechanism is established and core employees are rewarded through equity incentives to share the Company’s development achievements with employees.

Tuya’s Remuneration and Incentive Mechanism	
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

During the Reporting Period, the Compensation and Benefits Team of the Human Resources Department of Tuya led the project of the “Remuneration and Employment Compliance Support for Launching New Overseas Locations” to support the sales team for candidates in new countries and regions (including the Asia-Pacific region, the Eurasia region, and the America-Africa regions) to quickly get on board, and ensure compliance in remuneration and employment management. With the major innovation and effectiveness of the project in the field of human resources management, we won the “Best HR Program of 2022 Flag Awards”.



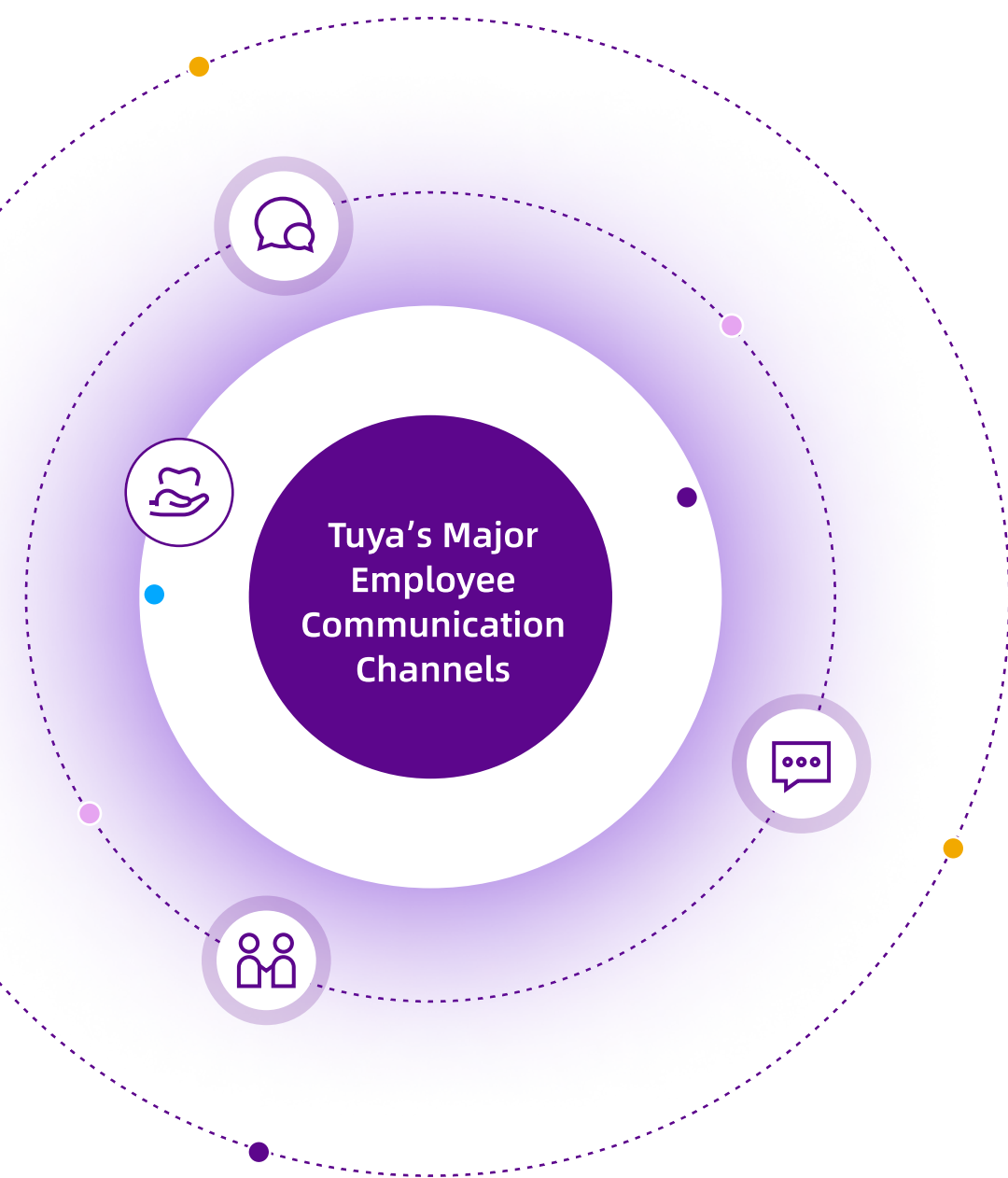
Best HR Program of 2022 Flag Awards

In accordance with the applicable laws and regulations of the place where we operate, such as the Social Security Law of the People’s Republic of China, we have contributed to various kinds of social securities for employees, and set up a series of additional employee benefits such as holiday benefits, travel allowances, and housing subsidies. During the Reporting Period, we actively responded to the society needs by adding full-paid leave categories such as maternity leave, parental leave and single-child care leave to protect the legitimate rights and interests of employees. In addition, we have developed a variety of employee care measures according to the needs of different employees, and built a multi-level welfare system in Tuya.

Tuya’s Multi-level Welfare System	
Female employees	Maternity leave is provided for female employees according to the law during which wages are paid in full. A nursery room is set up for postpartum mothers in the Company. In addition, we provide female employees with exclusive welfare benefits, such as medical beauty discount, lectures for female employees during pregnancy, onsite Chinese medicine consultation, etc.
Fresh graduates	Housing allowance
Employees on overseas business trip	We provide overseas travel insurance for employees with an insured amount of RMB500,000 (accident insurance) and RMB300,000 (medical insurance) at the Company’s expense to protect employees from accidental losses during overseas travel
Employees staying in Hangzhou during the Chinese New Year holidays	We help non-Zhejiang household registered employees apply for subsidies for staying in Hangzhou during the Chinese New Year holidays, and provide Chinese New Year goodies

Employee Communication

Tuya attaches great importance to employee communication, and has established a multi-channel communication mechanism to listen to employee opinions and feedback, thereby enhancing corporate cohesion and jointly creating a democratic and equal workplace atmosphere. In addition to various conventional online and offline communication channels, we have launched the column "You Yi Shuo Yi" on the Tuya WeChat official account. All employees can submit questions anonymously, and senior management will answer directly.



Company's WeChat official account
Voice of Tuya

"Free Talk" seminar
"Free talk" seminar with core employees

Public email
voice@tuya.com

HR interview
Daily communication and interview with HR department

Company's WeChat HR channel
WeChat official account: T Mei (T妹)

Tuya organizes a variety of employee activities to increase employee communication and interaction, help employees develop hobbies after work, expand their social circle, and achieve work-life balance. In addition, Tuya has organized internally a variety of employee clubs. In addition to traditional sports clubs such as basketball, football and badminton, there are also board games and other club activities that meet the interests of young people.

“Have a Good Start” event

After the Chinese New Year holidays in February 2022, Tuya held the “Have a Good Start” event, explaining the strategy of Tuya in 2022 to all employees through live broadcast; commending outstanding employees and projects in 2021; and sending gifts to employees in the form of online lucky draw.



Tuya’s 8th anniversary

June 16, 2022 marked the 8th anniversary of Tuya’s establishment. On that day, Tuya organized an event for all employees to share exclusive stories about Tuya. While presenting anniversary souvenirs to long-service employees, we collected employees’ blessings and expectations for the Company.



Paying back to long-term service employees

In the course of development of the Company, Tuya is grateful for the trust and long-term dedication of its employees. We are grateful to the employees and reward their contributions with caring gifts and exclusive commemorative gifts at different stages at Tuya.

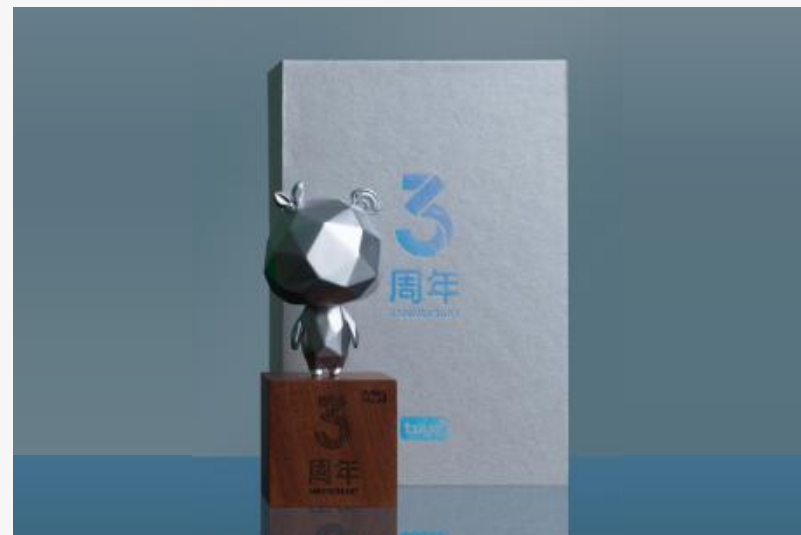
First-year anniversary gift: A medal

It is not easy for a new joiner in the first year upon joining a company as employees need to adjust and adapt to the new company culture and team atmosphere, etc. It is worth a medal if employees can survive for one year.



Third-year anniversary gift: Diamond-cut Tuya duck display

As the saying goes, "Don't take on a job without the right tool". In our hearts, the employees who have been with us for three years are Tuyaers with the right tool. In terms of professional ability, a Tuyaer can carve out a niche. In terms of cultural understanding, a Tuyaer is an excellent practitioner of Tuya's values.



Fifth-year anniversary gift: Running Tuya duck display

Over the past eight years, Tuya has been striving to grow its business, make breakthroughs and march forward. We hope that those who have been with us over five years will continue to march on the journey with us.



Occupational Health and Safety

Ensuring employees' work safety and occupational health is Tuya's basic commitment to employees. We always pay attention to the physical and mental health of our employees, and apart from the general labor-related laws and regulations, we also strictly abide by the Production Safety Law of the People's Republic of China, the Fire Protection Law of the People's Republic of China and other applicable laws and regulations of the place where we operate, so as to comprehensively protect the health and safety of our employees.

Employee Health and Safety Initiatives



Annual health check

Annual health check is provided to all eligible employees



Commercial health insurance

Tuya purchased commercial health insurance for all employees at the end of 2022 to provide further health protection for employees



Mental health coaching

Coaching about mental health is provided to the HR department so that they can better resolve any mental health issues that the employees may have



Occupational health and safety events

Chinese medicine consultation: External agencies are invited to the office onsite for Chinese medicine consultation

Health seminar for female employees during pregnancy: We organize health seminars for female employees during pregnancy

05

COMMUNITY CO-CONSTRUCTION, INDUSTRY CO-CREATION

IoT products offer a more convenient, broader, and smarter living space for human life. At the same time, they also provide a wide range of opportunities for building smart cities and building resilient communities in the post-pandemic era. As the leader and explorer of the IoT industry, Tuya delves into the homes of ordinary people, captures their diverse needs with acute insight, and brings warmer and cozier smart solutions and IoT products to the society. With our in-depth experience in the IoT industry, we have imagination and possibilities without boundaries, and actively carry out external cooperation and communication exchanges, aiming to work together with global partners to create a better world.

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

11 SUSTAINABLE CITIES AND COMMUNITIES

CREATING SMART COMMUNITIES AND INDUSTRY SCENARIOS

Tuya's smart solutions help many industries, communities, and commercial scenarios realize building of a full-scenario intelligent transformation, and promote the interconnection and collaboration of smart devices of different brands and categories, bringing warmth to the society. For instance, we actively explore and promote the implementation of green and smart solutions in communities, educational or public areas, and realize the smart control of energy consumption and power through our exclusive smart devices and SaaS software management platform, so as to create a comfortable, humane, warm, low-carbon and energy-saving smart scenarios, and contribute to the sustainable development of the society.

Tuya leads smart educational lighting with focus on the visual health of children and youth

Tuya focuses on the field of education premises. By empowering a complete set of smart education lighting solutions including smart lights, air conditioners, air purifiers and curtain panels, it helps schools, classrooms, laboratories and other educational premises to realize an intelligent light environment and intelligent voice control as well as helps students relieve eye fatigue and prevent myopia.

Tuya's solution empowers the Lighting Cognition Laboratory of Fudan University, which tackles the stringent requirements of refinement, digital lighting and light environment control in optical lighting experiments. Researchers only need to tap a few times on the mobile App, and the lights in the whole laboratory can be adjusted to the desired brightness and color temperature, which is suitable for various scenario needs such as assisted teaching under weak light and optical experiment teaching.

Tuya's smart educational lighting solution provides another possibility for the prevention and control of myopia among the youth and the improvement of the classroom lighting.

At Beijing City Haidian District North New District Experimental School, relying on the lighting sensor empowered by Tuya, the classroom lights can automatically adjust the brightness and color temperature according to the change in natural light, so that the classroom lighting is always within the most comfortable range for students' eyes. The project has helped the school solve the problems of insufficient classroom lighting, serious light flicker and high color temperature, and realized the automatic switching of lighting scenarios in different modes such as class, recess, self-study, and lunch break, meeting the different needs of different scenarios for lighting. As of the end of the Reporting Period, Tuya's IoT smart educational lighting solution has empowered more than 500 classrooms.



Smart scientific research laboratory

Tuya actively explores many fields such as elderly communities, industrial parks, and professional premises

Elderly Communities

In the smart renovation project of Caihe Residential District, Jianggan District, Hangzhou, Zhejiang Province, China, Tuya and Sundry Service Group (Stock Code: 9608.HK) jointly created a “Smart Community IoT Platform”. As more than 30% of the residents in the community are elderly people over the age of 60, the smart scenario with respect to elderly care needs has attracted much attention. To address the accident-prone situation of the elderly living alone, Tuya has developed a “smart elderly care” solution. The smart sensor detector can identify the activity status of the elderly living alone at home. For instance, once the door has not been opened or closed for a long time, or there is no movement of people in the house for a long time, the relevant warning information will be sent to the community staff through the community management system, and the staff will pay a visit to check as soon as possible. In addition, when a smart device detects that the elderly living alone has fallen down, the smart back-end of the platform will immediately push the alarm information to relevant personnel, so that the community and family members can take immediate actions to ensure the safety of the elderly.



Industrial Parks

Traditional industrial parks are in urgent need of smart transformation. Tuya cooperated with a leading brand in the smart energy industry - CYG Sunri, a wholly-owned subsidiary of an A-share listing group CYG (Stock Code: 600525.SH), to jointly create a “zero-carbon management solution for smart parks”, which keenly identified the urgent needs of the electricity market for low-carbon and smart transformation, and provided professional energy use services for parks and industrial and commercial enterprise customers.

Based on the self-owned park at the headquarters of CYG Sunri in Shenzhen, Tuya and CYG Sunri have created a zero-carbon smart park benchmark project. In the end, the park realized a reduction of 1,588 tons of voluntary carbon emission, which is equivalent to 1.5 million square meters of forest plantation on the earth or an area equivalent to about 210 football fields. In the future, the park is expected to save approximately 400,000 kWh of electricity and 288.46 tons of carbon emission annually.



Professional Fields

The maintenance hangar area of Changzhou Benniu Airport is as large as nearly 5 football fields. However, traditional HID lighting was used, which has serious light attenuation and cannot meet the work requirements with high precision requirements. In addition, even when only one aircraft is parked, all the lights throughout the facility must be turned on, resulting in a lot of unnecessary energy consumption.

Tuya cooperated with Bilinwei, a leading company in the field of industrial lighting, to carry out smart transformation of lighting equipment, and at the same time created a complete set of IoT smart control system, which saves nearly 55% of the original power consumption. In addition, energy consumption can be monitored centrally by management personnel in the back office through the large energy metering screen to visualize energy consumption data.



“Smart Residential” helps create a talent-affordable leasing service ecosystem

Tuya created the first full-scenario smart apartment project on the smart residential platform for Changzhou Binjiang Group - Spring River Parkway Apartment (春江百匯公寓). In the future, Spring River Parkway Apartment will provide tenants with friendly, comfortable and personalized smart services with the help of a myriad of smart scenarios and complete smart systems. This project will become a landmark project of smart “blue collar” apartments in Changzhou.

The smart residential platform of Spring River Parkway Apartment integrates smart residential management system, indoor and outdoor smart living environment, water and electricity meter management system and energy consumption management system, setting out the rental procedures for the operator and residents, smart lighting life control, automatic meter reading and settlement, energy consumption and data dashboard analysis and management, etc., to create a comfortable and smart residential community.



PROMOTING INDUSTRIAL DEVELOPMENT

The rapid growth of the IoT industry in recent years owes its success to the dedication and effort of every member in the industry. As a leading company in the field, Tuya has joined and formed strong partnerships with many authoritative alliances and associations, actively participating in various projects and establishing deep cooperative relations in the IoT industry. Through these efforts, Tuya has accumulated profound IoT capabilities and a strong global influence, and expanded its reach across multiple fields to drive innovation and accelerate progress in the industry and for enterprises.

Tuya leads the implementation of Matter in the global market, with PBT products obtaining the first batch of “Matter 1.0 Certification” in the world and China

On November 3, 2022, the CSA Connectivity Standards Alliance (hereinafter referred to as: Alliance) held the Matter 1.0 global media conference in Amsterdam, the Netherlands, and held a Chinese media conference in Shenzhen on November 4, Beijing time. As a member of the Alliance’s board of directors and an early participant of the Matter, Tuya attended these two conferences and brought wonderful speeches and roundtable discussions to developers around the world.



Yang Yi, co-founder and COO of Tuya, delivered a speech at the Matter conference

As an early participant of the Matter protocol, Tuya has been deeply involved in the research and development and marketing of Matter, and has always provided multi-dimensional support in the field of technology and ecology for the development and iterative operation of Matter. Tuya officially launched the Tuya Matter 2.0 project in October 2022, and obtained the Product Attestation Authority (PAA) certificate during the Reporting Period, becoming one of the first seven companies in the world to be approved by the CSA for product certification, and also the only IoT platform company among them. This shows that Tuya, as a leader in the IoT industry, can help customers, developers and other ecological partners to better use the Matter solution to deploy their own smart products, provide trust endorsement for the Matter devices developed by customers, and help global customers easily and conveniently obtain the PAA certificate, and gain the first-mover advantage in the market faster.

On the other hand, Tuya continues to expand a variety of Matter supported device categories, such as sensors, home appliances and switches, and leverage its development capabilities to provide devices using Matter solutions with more and richer smart functional options. In addition, Tuya will also integrate the capabilities of more ecological partners, such as Amazon's Matter Simple Setup (MSS), etc., enabling customers to provide end users with a smoother smart operating experience.

In the future, Tuya will, as always, cooperate with global customers and ecological partners to provide more support for the Matter protocol in terms of application scenarios and technologies, and continue to vigorously promote the development of the industry.



Demonstration platform of Matter solution supported by Tuya

As a member of the ioXt Alliance, Tuya continues to promote the security of IoT devices

Tuya is a member of the ioXt (internet of secure things) Alliance. The ioXt Alliance is the creator of global IoT security standards and one of the fastest growing IoT security certification bodies. It is composed of more than 200 leading OEMs, wireless operators, standards organizations, compliance laboratories and government organizations, assisted by technology and equipment manufacturing giants including Google, Amazon, T-Mobile, Comcast, etc. It is the only industry-led global IoT device security and certification program. As a member of the ioXt Alliance, Tuya will participate in ioXt's cross-industry cooperation initiative, establish and advocate best practices and standards in IoT and cyber security with other partners, and continue to lead the general direction of IoT device security.

In addition, Tuya's outstanding achievements in IoT security have been selected as the best practice cases in the global industry into the heavyweight 2022 Global IoT Security White Paper released by the ioXt Alliance and a number of authoritative organizations and authors.

Other Industry Associations

Tuya joined the China Household Electrical Appliances Association, successively became a member of the "Smart Home Appliances Cloud Interconnection" working group, the leader of the "Smart Home Appliances Cloud Interconnection" working group security group, and took the lead in formulating the China Smart Home Cloud Interconnection Information Security Standards and the Smart Home Appliances Information Security Standard of the National Technical Committee on Digital Technique of Intelligent Building and Residence Community of Standardization Administration.

ASSISTING IN PUBLIC WELFARE AND CHARITY

Our original aspirations are solid. We practice social responsibility with practical actions by continuously participating in the implementation of various public welfare projects, creating value with responsibility, paying back to the society with public welfare in an effort to realize the coordinated development of enterprises and society, and contributing our modest power.

As of the end of the Reporting Period:

4.79 million RMB

Total value of charitable donations

Tuya smart product donation cases as of December 31, 2022

- Deeply participated in the “east-west cooperation” project between Hangzhou and Ganzi, and donated smart products and supplies to the Ganzi area, such as smart security, electricals, home appliances and lighting, with a total value of approximately RMB850,000
- Donated a batch of smart devices including smart air conditioners, robot vacuum cleaners and switches to Zhoupo Primary School in Caojiang Town, Gaozhou for its development of educational facilities, with a total value of approximately RMB 300,000
- Donated smart products with a total value of approximately RMB1.5 million to Kaifeng, Henan for flood control and disaster relief
- Donated a batch of smart products with a total value of approximately RMB300,000 to Dayeshu Town, Chun’an County, Hangzhou, Zhejiang Province for infrastructure construction in villages and towns
- Donated a batch of smart products with a total value of approximately RMB200,000 and a batch of heaters with a total value of RMB30,000 to Qiaozhuang Town, Qingchuan County, Guangyuan, Sichuan Province, to support rural revitalization and help people stay over the severe cold
- Donated materials of approximately RMB600,000 to help the rural revitalization of Hangzhou
- Purchased stationery for teachers and students of Xingzhi School in Daxing District, Beijing on June 1st Children’s Day to support the education of children of rural migrant workers



In 2020, Tuya gathered global resources to support the fight against the pandemic

During the outbreak of the pandemic in early 2020, Tuya fulfilled its social responsibilities, from warehousing to transportation, from domestic to overseas, quickly organized the deployment of products, purchased supplies, and actively contacted manufacturers and logistics companies. Thanks to efforts by different parties, nearly 600 sets of “Powered by Tuya” Healthlead smart air purifiers, MUID mini heaters and Delixi smart power strips and other supplies with a total value of more than RMB800,000 were sent to Wuhan and Hangzhou respectively to protect the frontline medical staff during the fight against the pandemic. In the following March, after strict selection and deployment, a total of 16,000 masks, protective clothing, goggles and other medical supplies with a total value of approximately RMB200,000 were eventually collected from countries such as Mexico, South Africa and Germany, which were donated to frontline medical staff to provide necessary protection for medical staff fighting against the pandemic.



06



GREEN DEVELOPMENT, LOW-CARBON OPERATIONS

Against the background of climate change, energy shortage and serious environmental pollution, Tuya consider environmental protection as an important pillar of sustainable corporate development. During the Reporting Period, Tuya actively promoted a green office environment and implemented a series of low-carbon office initiatives. In addition, it continued to pay attention to the rational use of energy and resources, and established a green business model. Apart from properly handling and recycling wastes generated in the office, it strengthened the management of environmental risks and carried out forward-looking climate change risk identification. Tuya endeavors to explore more environmentally friendly operational models to minimize the impact of business operations on the environment, realize environmentally friendly development from top to bottom, and create green value.



PRACTICING GREEN OPERATIONS

In response to global climate change, leaders of various countries signed the Paris Agreement in 2015, committing to work together to keep global temperatures in this century to below 2°C above pre-industrial times. As a responsible company, Tuya thoroughly implements the concept of green operations and strictly abides by applicable laws of the place where it operates, such as 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. 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 to ensure that the Company's environmental management is compliant and well in order. During the Reporting Period, Tuya did not have any environmental violation.

Tuya has a safety and environmental protection department responsible for various environmental management tasks within the Company, including controlling the generation of domestic sewage and wastes, and improving the efficiency of energy and water use. Due to the business nature of Tuya, no exhaust emission is generated since it is not a heavy-duty production enterprise, and therefore it has a relatively low negative impact on the environment. In addition, Tuya does not purchase packaging materials separately, and the usage of sample packaging materials is negligible.

Green Office

Tuya actively promotes the low-carbon life of green office and encourages employees to start from the little things to contribute to the sustainable development of the Company and society. We have launched a series of green office initiatives. During the Reporting Period, 98.45% of the vouchers produced are paperless, saving approximately 4.26 tons of paper in total.

During the Reporting Period:

98.45 %

of the vouchers produced are paperless

4.26 tons

saving approximately 4.26 tons of paper in total

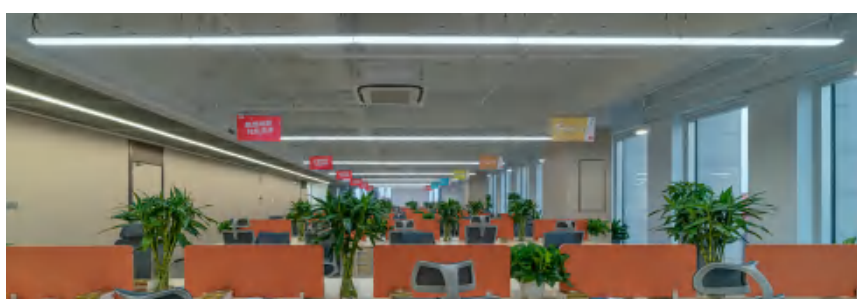
Green office initiatives:



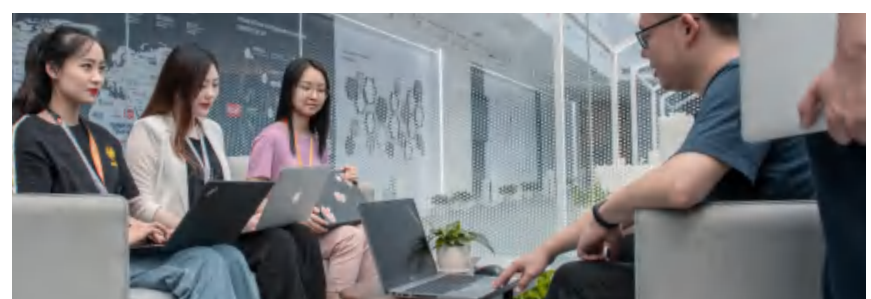
We encourage public transportation and teleconference, thus saving travel expenses and reducing fuel consumption



In the daily office area, we reduce the consumption of disposable paper cups and bottled water, and at the same time transform equipment such as automatic sensor faucets and flushers to save water



By transforming office equipment and lighting design as well as controlling the temperature of air conditioners, we can ensure that the internal power consumption of the enterprise is within the reasonable range of environmental protection requirements, thus achieving energy saving



We comprehensively promote paperless office, improve office efficiency and reduce paper waste

In addition to the above measures, the Company also encourages employees to reuse paper, take the stairs as much as possible, and share office resources.

Tuya believes that full participation in green office initiatives is an important part of achieving low-carbon operations. In order to enhance the environmental protection awareness of all employees, Tuya attaches great importance to environmental protection management regulations and the training of management personnel in various environmental protection-related positions. Based on relevant national laws and regulations, environmental management system and internal environmental management documentation of the Company, we require management personnel in various environmental protection-related positions to study regularly, and incorporate the learning results into performance appraisal to ensure the effective implementation of environmental protection work and jointly create a continuous sustainable operating system.

Tuya not only actively creates a green and low-carbon office environment, but is also committed to adopting more environmentally friendly practices and exploring new strategic goals to achieve sustainable operations. In order to further improve the level of green operation, we have formulated targeted environmental goals, aiming to improve carbon emissions, energy, emissions and water resources management through the formulation and realization of environmental goals.

Carbon emissions targets

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

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

Emissions management targets

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

Water resources targets

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



ENERGY MANAGEMENT

Energy Management System and Certification

As a responsible enterprise, Tuya is committed to promoting energy saving and consumption reduction. Tuya has formulated and implemented the Energy Saving and Consumption Reduction Control Procedures as the Company's internal operating procedures in strict compliance with the Energy Conservation Law of the People's Republic of China to strengthen the rational use of energy. In the course of daily operations, our energy consumption mainly comes from purchased electricity. By using our self-developed commercial lighting IoT control system - smart commercial lighting solution, we can improve energy management efficiency, meet the equipment management requirement of green buildings, and ensure that the goal of energy management and control is achieved.

The temperature of air conditioners is controlled between 24°C and 26°C to ensure that the internal power consumption of the enterprise is within the reasonable range of environmental protection requirements

Turn off unnecessary power-consuming devices at night to save energy at night

Encourage employees to turn off relevant TV power supply in time after the meeting is over, and check whether there is any power supply that is not turned off after work to reduce energy consumption

Promote green travel and carpooling, and encourage employees to take public transportation or ride shared bicycles on short-distance business trips or when commuting to and from work

Tuya energy saving and consumption reduction initiatives

Smart transformation of Tuya's office

The project adopted the smart commercial lighting solution developed by Tuya to carry out smart transformation for Tuya's office area, providing smart and comfortable lighting experience for approximately 1,000 employees. After the transformation, one-key adjustment of lighting effects, voice control lighting, independent control of lighting in the office area and showroom area, and automatic adjustment of lighting effects according to the timing of the astronomical clock are enabled in the office area. The effective and flexible energy-saving strategy has realized green and energy-saving in the office area. At the same time, lighting data is automatically uploaded and analyzed in real time, which improves energy management efficiency and reduces operational and maintenance costs.

2,866.07 MWh

Gross consumption of purchased electricity

13.77 MWh / USD million

Energy consumption per unit of revenue



USE OF RESOURCES

Water Resources Management

Tuya strictly abides by the Water Law of the People's Republic of China and other applicable laws and regulations of the place where it operates, and insists on promoting the concept of rational use of water and water conservation. The main source of water use of Tuya is municipal water. We record the amount of water resources used every month, and carry out renovation and regular maintenance of equipment and facilities such as automatic sensor faucets and flushers to prevent water leakage and waste of water resources. In addition, we actively promote the concept of water conservation and post various slogans in the common area to help employees develop the habit of water conservation.

4,736.88 m³

Usage of water resources (2022) ⁷

22.75 m³/ USD million

Usage of water resources per unit of revenue (2022)



Emissions Management

Tuya strictly abides by the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste and other applicable laws and regulations of the place where it operates, and strictly manages the discharge of pollutants. Since we are not a heavy-duty manufacturing enterprise, no exhaust emission is involved. Our wastewater discharge is mainly domestic sewage.

The wastes generated during Tuya's operation are mainly office waste, waste materials and equipment. Such wastes generated are sorted and recyclable wastes are centralized for recycling management and records filing. For non-recyclable waste and hazardous wastes, relevant qualified service providers are appointed to dispose of them in compliance with the laws.

4,263.19 m³

Gross wastewater discharge (2022)

20.48 m³/ USD million

Wastewater discharge per unit of revenue (2022)

⁷ *Excluding water usage in Shenzhen office

140.00 tons

Gross hazardous waste (2022)

0.67 tons / USD million

Hazardous waste generated per unit of revenue (2022)

48.89 tons

Gross non-hazardous waste (2022)

0.23 tons / USD million

Gross non-hazardous waste generated per unit of revenue (2022)

6.55 tons

Recyclable waste (2022)

42.34 tons

Non-recyclable waste (2022)

Recyclable waste treatment procedures

- The recyclable wastes from each department of the Company are stored in designated places.
- The recyclable wastes from each department of the Company are finally centralized for storage in the warehouse. When the recyclable waste reaches a certain amount, the administrative department will contact the recycler for recycling, and the manufacturer is responsible for recycling and replacing some scrapped IT equipment and components.
- The administrative department is responsible for the statistical work of recyclable wastes, and the preparation of monthly and annual waste recycling statistical tables.

Non-recyclable waste treatment procedures

- All non-recyclable wastes of the Company are put into the designated trash cans and bins, and the administrative department will contact the outsourced cleaning company for regular collection and cleaning, and finally handed over to the property management company for centralized processing.

Waste treatment procedures



RESPONDING TO CLIMATE CHANGE

The current global climate has changed dramatically compared to the pre-industrial times. As climate change becomes more pronounced and extreme weather occurs more frequently, in 2015, leaders around the world pushed for the signing of the Paris Agreement to jointly tackle climate change. The Paris Agreement seeks to limit the increase in global average temperature to well below 2°C above pre-industrial levels. In November 2022, it was proposed at the United Nations Climate Change Conference (COP 27) that multilateral collaboration would play an important role in addressing global climate change. Tuya actively responds to the global initiative and diligently practices the concept of green and low-carbon development. During the Reporting Period, with reference to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and taking full consideration of the Company's operations, industry and geographical factors, we initially identified various climate change-related risks and formulated relevant measures to address the risks brought by climate change to Tuya.

1,634.52 tons of CO₂e

Gross greenhouse gas emissions (2022)⁸

7.85 tons of CO₂e/USD million

Greenhouse gas emissions per unit of revenue (2022)

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	Accelerate low-carbon technology innovation, analyze the suitability of new technologies or solutions developed by the R&D department 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, typhoon, heavy snow, flood, extreme heat, extreme cold, etc.)	Comprehensively analyze and summarize the experience of typhoon and flood control over the years, and improve various emergency plans and early warning systems to deal with natural disasters such as typhoon and rainstorm
	Chronic	Rising average temperature increases energy consumption in data center during summer	Closely monitor chronic risks, promptly assess their business impact and take action accordingly, such as expanding the use of renewable energy

⁸ *Tuya's business operations do not produce direct energy, and the source of greenhouse gas emissions is only from purchased electricity.

APPENDIX I: HONG KONG STOCK EXCHANGE ESG CONTENTS INDEX

Environmental, Social and Governance Areas, General Disclosures and Key Performance Indicators (KPI)			Relevant Section
Environmental			
A1 Emissions	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Green Development, Low-carbon Operations
	A1.1	The types of emissions and respective emissions data	Green Development, Low-carbon Operations - Practicing Green Operations - Emissions Management
	A1.2	Total greenhouse gas emissions and intensity	Green Development, Low-carbon Operations - Responding to Climate Change
	A1.3	Total hazardous waste produced and intensity	Green Development, Low-carbon Operations - Practicing Green Operations- Emissions Management
	A1.4	Total non-hazardous waste produced and intensity	Green Development, Low-carbon Operations - Practicing Green Operations- Emissions Management
	A1.5	Description of emission target(s) set and steps taken to achieve them	Green Development, Low-carbon Operations - Practicing Green Operations- Green Office
	A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them	Green Development, Low-carbon Operations - Practicing Green Operations- Emissions Management
A2 Use of Resources	General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Green Development, Low-carbon Operations - Practicing Green Operations- Use of Resources
	A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total and intensity	Green Development, Low-carbon Operations - Practicing Green Operations- Energy Management
	A2.2	Water consumption in total and intensity	Green Development, Low-carbon Operations - Practicing Green Operations- Use of Resources
	A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them	Green Development, Low-carbon Operations - Practicing Green Operations- Green Office & Use of Resources
	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, Low-carbon Operations - Practicing Green Operations- Green Office & Use of Resources
	A2.5	Total packaging material used for finished products and with reference to per unit produced	Green Development, Low-carbon Operations - Practicing Green Operations
A3 The Environment and Natural Resources	General Disclosure	Policies on minimizing the issuer's significant impacts on the environment and natural resources.	Green Development, Low-carbon Operations
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	Green Development, Low-carbon Operations
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, Low-carbon Operations - Responding to 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, Low-carbon Operations - Responding to Climate Change

Environmental, Social and Governance Areas, General Disclosures and Key Performance Indicators (KPI)			Relevant Section
Social			
B1 Employment	General Disclosure	Information on: (a) the policies; and (b) 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.	People-oriented, Walking Together Hand-in-hand
	B1.1	Total workforce by gender, employment type, age group and geographical region	People-oriented, Walking Together Hand-in-hand - Employee Rights and Interests - Attracting Talents
	B1.2	Employee turnover rate by gender, age group and geographical region	People-oriented, Walking Together Hand-in-hand - Care for Employees - Employee Communication
B2 Health and Safety	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	People-oriented, Walking Together Hand-in-hand - Care for Employees - Occupational Health and Safety
	B2.1	Number and rate of work-related fatalities occurred in each of the past three years	People-oriented, Walking Together Hand-in-hand - Care for Employees - Occupational Health and Safety
	B2.2	Lost days due to work injury	People-oriented, Walking Together Hand-in-hand - Care for Employees - Occupational Health and Safety
	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored	People-oriented, Walking Together Hand-in-hand - Care for Employees - Occupational 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.	People-oriented, Walking Together Hand-in-hand - Employee Development - Employee Training
	B3.1	The percentage of employees trained by gender and employee category	People-oriented, Walking Together Hand-in-hand - Employee Development - Employee Training
	B3.2	The average training hours completed per employee by gender and employee category	People-oriented, Walking Together Hand-in-hand - Employee Development - Employee Training
B4 Labor Practices	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	People-oriented, Walking Together Hand-in-hand - Employee Rights and Interests - Labor Rights
	B4.1	Description of measures to review employment practices to avoid child and forced labor	People-oriented, Walking Together Hand-in-hand - Employee Rights and Interests - Labor Rights
	B4.2	Description of steps taken to eliminate such practices when discovered	People-oriented, Walking Together Hand-in-hand - Employee Rights and Interests - Labor Rights
B5 Supply Chain Management	General Disclosure	Policies on managing environmental and social risks of the supply chain.	Superior Quality for Digital and Intelligent Future - Supplier Management
	B5.1	Number of suppliers by geographical region	Superior Quality for Digital and Intelligent Future - Supplier Management-

Environmental, Social and Governance Areas, General Disclosures and Key Performance Indicators (KPI)			Relevant Section
Social			
B5 Supply Chain Management	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	Superior Quality for Digital and Intelligent Future - Supplier Management-
	B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Superior Quality for Digital and Intelligent Future - Supplier Management-
	B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Superior Quality for Digital and Intelligent Future - Supplier Management-
B6 Product Responsibility	General Disclosure	Information on: (a) the policies; and (b) 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.	Superior Quality for Digital and Intelligent Future
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Superior Quality for Digital and Intelligent Future - Products and Services - Quality Assurance
	B6.2	Number of products and service related complaints received and how they are dealt with	Superior Quality for Digital and Intelligent Future - Products and Services - Customer Service
	B6.3	Description of practices relating to observing and protecting intellectual property rights	Superior Quality for Digital and Intelligent Future - Intellectual Property Rights Protection
	B6.4	Description of quality assurance process and recall procedures	Superior Quality for Digital and Intelligent Future - Products and Services - Quality Assurance
	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored	Superior Quality for Digital and Intelligent Future - Data Security and Privacy Protection
B7 Anti-corruption	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Responsibility as Foundation of Enterprise for Steady and Long-term Development
	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	Responsibility as Foundation of Enterprise for Steady and Long-term Development - Commercial Ethics
	B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored	Responsibility as Foundation of Enterprise for Steady and Long-term Development - Commercial Ethics
	B7.3	Description of anti-corruption training provided to directors and staff	Responsibility as Foundation of Enterprise for Steady and Long-term Development - Commercial 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.	Community Co-construction, Industry Co-creation
	B8.1	Focus areas of contribution	Community Co-construction, Industry Co-creation
	B8.2	Resources contributed to the focus area.	Community Co-construction, Industry Co-creation

APPENDIX II: ESG PERFORMANCE

Name of indicators	Unit of indicators	2022
Gross wastewater discharge	m ³	4,263.19
Wastewater discharge per unit revenue	m ³ /USD million	20.48
Gross greenhouse gas emissions	tons of CO ₂ e	1,634.52
Greenhouse gas emissions per unit revenue	tons of CO ₂ e / USD million	7.85
Gross hazardous waste	tons	140.00
Gross hazardous waste generated per unit revenue	tons / USD million	0.67
Gross non-hazardous waste	tons	48.89
Recyclable waste	tons	6.55
Non-recyclable waste	tons	42.34
Gross non-hazardous waste generated per unit revenue	tons / USD million	0.23
Purchased electricity	MWh	2,866.07
Energy consumption intensity	MWh / USD million	13.77
Usage of water resources ⁹	m ³	4,736.88
Usage of water resources per unit revenue	m ³ /USD million	22.75

⁹ *Excluding water usage in Shenzhen office

Name of indicators		Unit of indicators	2022
Total number of employees		people	1,829
Number of employees by employment type	Full-time employees	people	1,803
	Contract workers	people	26
Number of full-time employees by gender	Male	people	1,256
	Female	people	547
Number of full-time employees by age	Aged below 30	people	617
	Aged 30 and above	people	1,182
	Unknown	people	4
Number of full-time employees by region	Mainland China, and Hong Kong, Macao and Taiwan regions	people	1,781
	Overseas regions	people	22
Number of full-time employees by rank	Senior level management	people	20
	Middle level management	people	70
	Primary level management	people	221
	General employees	people	1,492
Turnover	Total turnover	%	18.1
Turnover by gender	Male	%	18.8
	Female	%	16.2
Turnover by region	Mainland China, and Hong Kong, Macao and Taiwan regions	%	17.5
	Overseas regions	%	61.3
Turnover by age	Aged below 30	%	24.8
	Aged 30 and above	%	13.0

Name of indicators		Unit of indicators	2022
Health and Safety			
Number of work-related fatalities	2020	people	0
	2021	people	0
	2022	people	0
Number of lost-days as a result of work injuries		days	237
Development and Training			
The percentage of employees trained by gender	Male	%	70
	Female	%	30
The percentage of employees trained by rank	Senior level management	%	100
	Middle level management	%	97
	Primary level management	%	90
	General employees	%	97
The average training hours of employees by gender	Male	hour / people	0.83
	Female	hour / people	0.83
The average training hours of employees by rank	Senior level management	hour / people	8
	Middle level management	hour / people	4
	Primary level management	hour / people	2
	General employees	hour / people	0.27

Name of indicators	Unit of indicators	2022
Supply Chain Management		
Number of suppliers by region	Mainland China, and Hong Kong, Macao and Taiwan regions	number 816
	Overseas regions	number 131
Customer Services	Number of product and service-related complaints received	case 136
	Complaint resolution rate	% 100
	Complaint response rate	% 100
Philanthropy	Charitable donation	RMB'0000 479

APPENDIX III: CONTRIBUTIONS TO UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Tuya practices social responsibility around the United Nations Sustainable Development Goals (SDGs).

Contributions to SDGs	Relevant Sections	Contributions to SDGs	Relevant Sections
 <p>3 GOOD HEALTH AND WELL-BEING</p>	People-oriented, Walking Together Hand-in-hand Community Co-construction, Industry Co-creation	 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	Superior Quality for Digital and Intelligent Future Community Co-construction, Industry Co-creation
 <p>4 QUALITY EDUCATION</p>	People-oriented, Walking Together Hand-in-hand Community Co-construction, Industry Co-creation	 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	Superior Quality for Digital and Intelligent Future
 <p>5 GENDER EQUALITY</p>	People-oriented, Walking Together Hand-in-hand	 <p>13 CLIMATE ACTION</p>	Green Development, Low-carbon Operations
 <p>6 CLEAN WATER AND SANITATION</p>	Green Development, Low-carbon Operations	 <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p>	Responsibility as Foundation of Enterprise for Steady and Long-term Development
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	People-oriented, Walking Together Hand-in-hand	 <p>17 PARTNERSHIPS FOR THE GOALS</p>	Superior Quality for Digital and Intelligent Future
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	Superior Quality for Digital and Intelligent Future		