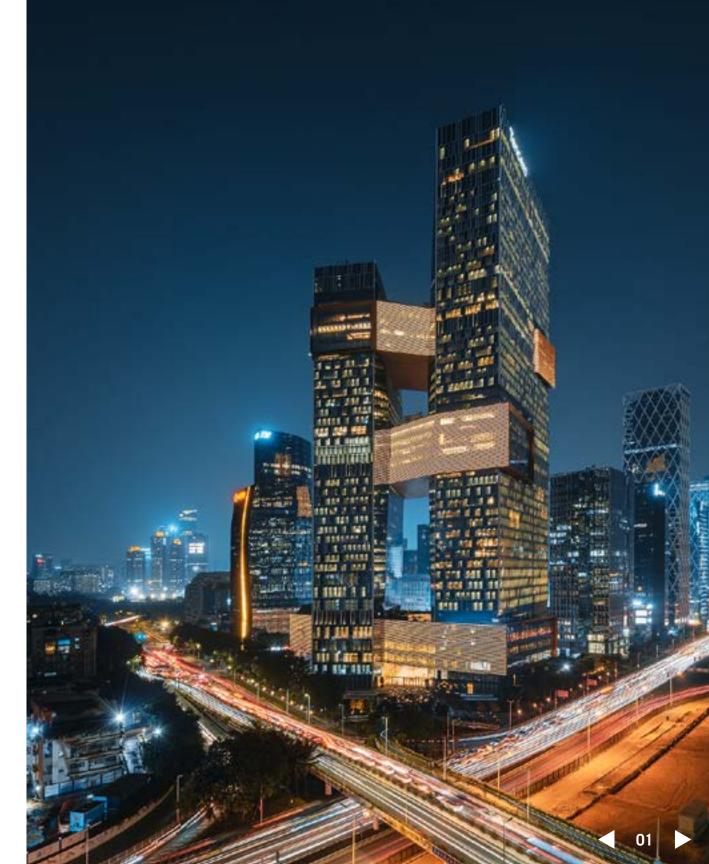


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# About Tencent

Tencent is a world-leading internet and technology company that develops innovative products and services to improve the quality of life of people around the world. Founded in 1998 with its headquarters in Shenzhen China, Tencent has been listed on the Stock Exchange of Hong Kong since 2004. Tencent's guiding principle is to use technology for good.

Our communication and social services connect more than one billion people around the world, helping them to keep in touch with friends and family, access transportation, pay for daily necessities, and even be entertained.

Tencent publishes some of the world's most popular video games and other highquality digital content, enriching interactive entertainment experiences for people around the globe.

Tencent also offers a range of services, such as cloud computing, advertising, FinTech, and other enterprise services to support our clients digital transformation and business growth.

# Value for Users, Tech for Good

User value is our guiding principle, and we strive to incorporate social responsibility to our products and services. We also promote technology innovation and cultural vitality; help industries digitally upgrade; collaborate for the sustainable development of society.

# Foreword

The essence of our vision and mission – "Value for Users, Tech for Good" is to use the power of technology to better care for the people; and the creation of social value is a journey where we transform the abstract concept of kindness and care into executable strategies, action plans, products, and operations.

During this journey, we met many who shared our conviction. For example, there was a former Tencent employee who returned to his hometown and led villagers to participate in local economic development in his new role as a rural CEO; a retired senior, who walked to a local hospital to do volunteer work every day, has donated a total of 30 million steps in the walk-for-charity programme on *Tencent Charity* platform; a recipient of Tencent's Xplorer Prize, who has spent years of research in developing new nano materials, is experimenting the use of nano materials to protect the retreating glaciers. They are peoples from varied backgrounds, with different life experiences and doing good in their own ways. The common threads are their care for the society, and their good deeds are connected to Tencent.

Transforming our care for the people into products that can solve social pain points is, in a nutshell, how we implement our sustainable social value innovation strategy. Our employees have cross-applied our noise-reduction technology in *Tencent Meeting* to cochlear implants and hearing aids for the children in need and the elderly: deployed our games-related technologies to empower manufacturing industries in building full-fidelity connected factories; and used artificial intelligence technologies to assist the cosmic exploration of pulsars through the FAST telescope. Our technologies have found new connections, blazing new pathways in solving puzzles and problems. The essence of connection, however, is beyond tools and basically about caring for the people. Once we calibrated our perspectives, we can re-purpose our technologies and products to find novel solutions in many societal use cases. From the outset, it may look like just a technology upgrade. but the true meaning lies in the genuine understanding of user needs.

Not long ago, I discussed the concept of the "CBS Trinity", which emphasises serving Customer-Business-Society with the aim to create greater value for the society as a whole. We view our investments in social value creation as important as our investments in research and development. Both are apparently costs, but strategically important to strengthen our foundation in corporate sustainability. Like a banyan tree growing out to become a forest over time, the deeper the roots of sustainable social value penetrate the soil of the society, the lusher the leaves of user value and

Tencent has done quite a few experiments in sustainable social value innovation. In comparison to our business achievements, I believe we have a lot of room to grow. I hope, in the future, Tencent will deliver not only solid financial performance to shareholders, but also well-grounded sustainability performance to stakeholders.

industry value grow.

Enriched Digital Life'

The case of *Weixin Pay*<sup>1</sup> mentioned in this report explains how we linked caring for the people, the environment, and the society to our experiments in social value and commercial value integration, and how we deployed our technologies and products in the execution. In this virtuous cycle, beneficiaries receive genuine support; users and stakeholders give positive feedback to participating companies; and companies are encouraged to integrate social value and commercial value. I believe, in the foreseeable future, more companies will be joining Tencent to serve the people and society in their unique ways, leveraging their core strengths.

#### Ma Huateng

Chairman of the Board and Chief Executive Officer, Tencent

# Message from the Management

Since the 930 reform in 2018, when we enshrined "Tech for Good" as the Company's vision and mission, to the strategy upgrade in 2021, when we upgraded our corporate strategies to promoting sustainable innovations for social value, alongside nurturing the consumer Internet and embracing the industrial Internet, we have been trying to find the right approach to leverage our core capabilities to advance social value innovation.

Two years after the strategy upgrade, our Sustainable Social Value organisation has made remarkable progress in supporting digital philanthropy, research in basic sciences and rural revitalisation, as well as gained several important insights. Firstly, we can re-purpose our products and technologies to find innovative pathways to social pain points. Secondly, we can collaborate with like-minded partners to create social value and share outcomes. Thirdly, we have to strengthen our resolve for long-term execution, for example, in the area of basic sciences research, we funded the Xplorer Prize and the New Cornerstone Investigator Programme, both of which have operating time horizons of more than ten years.

We saw many of our colleagues have proactively and thoughtfully integrated social value in their products, for example, *Tencent Meeting, Weixin Pay* and *Sogou Input Method* product teams have re-purposed their core technologies to solve social pain points. This is what we hope for and are pleased to see: social value creation integrated into core products, generating triple benefits for users, industries and the overall society. We also have more colleagues participating in volunteer work in support of philanthropic, charitable and humanitarian causes. In the past year, approximately 20,000 employees have contributed in total more than 30,000 hours of volunteer services.

Creating social value requires us to get involved, discover the pain points, then use the capabilities of our products and technologies to find innovative pathways to address them. During this process, we take our corporate social responsibility as the baseline to assess if our products have created unique user value, if we have upheld our ethical values along the way, and if we have exercised prudence in commercialisation. For example, we have been cautious in monetising our social platforms, which we positioned as open platforms, where peoples with different capabilities. resources and skill sets can reach their respective user clusters and generate commercial returns, while we get a small return for providing user traffic, technology and infrastructure support. Another example is our voluntary initiative to introduce the protection system for underaged players in online games – the first of its kind in the industry - to assist parents in managing their children's play time and in-game spending.

Social value creation also requires us to hold a long-term view and strengthen our resolve to execute gradual but lasting outcomes. We need strong corporate governance, an appropriate management system and a robust corporate culture to aid navigation and oversee implementation. In 2022, we started a pilot project, where we added social value creation into the balanced scorecard review of certain core business teams. We will continue to encourage managers at all levels to put equal importance to commercial value and social value creation and promote the integrated execution.

**Lau Chi Ping Martin**President of Tencent

For details of the case, please refer to this report, "Beneficial Technologies – Promote an

# Executive Summary

In 2022, we continued to execute our ESG strategies by managing identified issues and risks proactively, as well as integrating sustainable social value creation in our operations and product development.

We are glad to share the highlights of our progress as below:

## **Environmental**

- To demonstrate our commitment to reducing carbon emissions, we have refined targets of our decarbonisation pathways based on our commitment to carbon neutrality by 2030, and set absolute greenhouse gas (GHG) emissions reduction targets for Scope 1, 2 and 3, in alignment with the Paris Agreement and Sciencebased Target Initiative.
- We strengthened our management of naturerelated risks and opportunities, and published a biodiversity statement, which outlined our strategy and approach towards safeguarding biodiversity and natural ecosystems. This means we will develop our business in an eco-friendly manner, utilise technology to promote the sustainable use and protection of natural resources, and deploy our online platforms to raise public awareness.

## Social

- We are committed to Diversity, Equity and Inclusion (DEI), and making steady, systematic progress at board and company levels. Following the appointment of Professor Zhang Xiulan as an independent non-executive director, the Board has increased the ratio of female directors to 22.2% and intends to raise female representation to 30% by 2030. At the company level, we established a special committee on DEI under the ESG Working Group and published Our Commitment to Diversity, Equity and Inclusion recently. We will continue to expand our recruitment channels to attract a diverse mix of talent and identify pathways to enhance DEI performance, where increasing female representation in the company is one of the key tasks.
- We continued to make progress in sustainable social value innovation, particularly in three core areas, namely research in basic sciences, digital philanthropy and rural revitalisation. We launched the New Cornerstone Investigator Programme, with a commitment to granting a total of RMB10 billion over the next ten years to support outstanding scientists in basic sciences research. We upgraded our digital philanthropy platform and introduced an interactive mechanism One Flower, One Dream to encourage participation in philanthropic activities. We support rural revitalisation by empowering local talent with digital tools through our Cultivator Programme and Rural CEO Programme.
- We are highly aware of our corporate responsibility to protect underaged users of the Internet. Based on our self-initiated protection system for underaged players in online games, we rolled out similar measures across our products and services. We established the "Tencent Youth Care Workstation" to shield harmful content from and promote internet literacy among the young generation. Additionally, we launched the "Smart and Healthy" programme to support their healthy development.

## **Governance**

- To enhance supply chain ESG management, we collaborated with our partners to define business ethics and the code of conduct that must be adhered to, when doing business with Tencent. We have initiated our GHG Scope 3 emissions reduction efforts by assessing potential opportunities for carbon reduction across our procurement and downstream leasing premises and will formulate improvement measures accordingly.
- We analysed and considered the reporting boundary of our 2022 ESG report. Having taken into consideration factors including operational control, local regulations and financial materiality, we expanded our reporting scope to include two publicly listed subsidiaries, Tencent Music Entertainment Group and China Literature Limited this year.

James Mitchell John Lo Co-chairs ESG Working Group

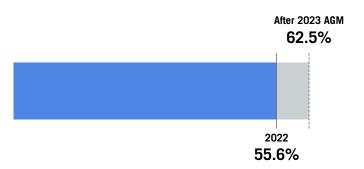
# Corporate Governance

## **Board Independence and Diversity**

Tencent has a unitary board. As of the end of 2022, the board of directors (the Board) consisted of nine directors, including two executive directors, two non-executive directors and five independent non-executive directors (INEDs). The non-executive directors, who are senior executives from Naspers, a substantial shareholder of Tencent, bring a wide range of business and financial experience to the Board and have been exercising governance in the interests of long-term shareholders. Independent non-executive directors represent more than half of the Board, providing sufficient checks and balances that safeguard the interests of the shareholders and the Company. Non-executive directors and INEDs serve as chairpersons of the Audit Committee, Corporate Governance Committee and Remuneration Committee of the Board.

To further segregate the responsibilities of the Board and the management team, Mr. Lau Chi Ping Martin, an executive director of the Board, will retire by rotation and not offer himself for re-election at the 2023 Annual General Meeting (AGM). Upon the conclusion of the AGM, Mr. Lau will cease to be a director and continue to serve as President of the Company, and Chairman of the Investment Committee. The number of Board members will decrease from nine to eight, and the proportion of INEDs will increase to 62.5%.

As of the end of 2022, the total number of INEDs accounting for 55.6% of the Board. After the 2023 AGM, the proportion of INEDs will increase to 62.5%.



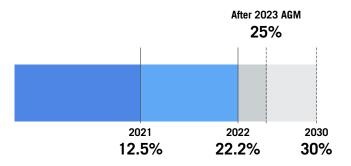
The Board values the diverse experience of the directors and appreciates the independent oversight provided by the non-executive directors and INEDs. The Board seeks to maintain a good mix of veteran and new directors to embrace new perspectives, while ensuring its effectiveness and efficiency in discharging fiduciary duties. Among the five INEDs, three have served on the Board for between one to seven years. The Board believes that the two long-serving INEDs, despite having served on the Board for over nine years, have the character, integrity, independence and expertise to continue to fulfill their roles as INEDs effectively and will continue to bring valuable experience, knowledge and professionalism to the Board.

The Board focuses on various diversity factors during the selection process of directors, including but not limited to industry knowledge, professional background, experience, gender and race. We have updated our *Board Diversity Policy* in March 2022, and have fully considered this policy and the Listing Rules requirements when assessing the candidates' eligibility to serve as directors. The current Board members have deep domain experience and extensive professional background covering a wide range of sectors, including computer science, electronic engineering, communication technology, business administration, finance, accounting, law, medicine, and social sciences.

In 2022, the Board appointed Professor Zhang Xiulan as an INED and a member of the Corporate Governance Committee. Following her appointment, the proportion of female directors in the Board increased from 12.5% in 2021 to 22.2% in 2022 (expected to be 25% after the 2023 AGM). The Board intends to further increase the proportion of female directors to 30% by 2030.

The Board has delegated overall responsibility for the Company's ESG matters to the Corporate Governance Committee, which is chaired by a non-executive director and membered by four INEDs. For details of the Company's corporate governance efforts in 2022, please refer to the "Corporate Governance Report" section in the Tencent 2022 Annual Report."

The proportion of female directors of the Board increased from 12.5% in 2021 to 22.2% in 2022 (expected to be 25% after the 2023 AGM). The Company will increase the proportion of female directors to 30% by 2030



#### **Commercial Value, Social Value and Shareholder Value**

Since our strategy upgrade to promoting sustainable innovations for social value, alongside nurturing the consumer Internet and embracing the industrial Internet, we have positioned the Company with a clear strategic vision for future development and strengthened our foundation in sustainability.

Tencent continues to place **user value** at the core of our mission and culture, and at the forefront of commercial value design for our products and services. Our investment in social value innovations, which is funded by investment gains and may take time to produce scalable outcomes, is separate from the resources we allocated in research and development for our products, technologies and platforms that are crucial for user value creation, and ultimately shareholder value return. We proactively manage the balance between commercial value, social value and shareholder value, ensuring the interests of shareholders and stakeholders are considered and the Company can steadfastly attain sustainable development in the long-term.

In the design and implementation of **commercial** value, user value is our foundation. We invest heavily in technologies and product, and strengthening the protection of user privacy and data security to deliver superior product experience to our users. By supporting industries to upgrade digitally, we create social value together for the society, which in turn allow us to share the commercial value generated out of the convergence of digital and real economies. In promoting digital industrialisation and industrial digitalisation, we position Tencent as a digital assistant that facilitate innovation and entrepreneurship and provide enabling technologies to support industries' digital transformation.

On **social value** innovation, we focus on deploying our products and technologies to find innovative pathways to solve social pain points. We encourage our business teams to enhance the social value of our products, for example, enhanced accessibility for communities with activity limitations and protection of endangered wildlife. Led by our Sustainable Social Value organization, we have launched two funding programs to support outstanding scientists in basic sciences research, initiated collaboration with recognised philanthropic organizations to incubate projects in nine core areas and provide funding to beneficiaries to help develop their self-reliance.

Regarding **shareholder value**, we are committed to maintaining a high standard of corporate governance and integrating social and environmental factors in our corporate strategies and risk management. Our continuous focus on user value creation and the integration of social value and commercial value will strengthen the Company's foundation in sustainability, safeguarding shareholder value. During the reporting period, Tencent returned value to our shareholders through various means, including cash dividends, distributions in specie, and share repurchases. The Board recommended the payment of a final dividend of HK\$2.40 per share (2021: HK\$1.60 per share) for the year ended 31 December 2022, subject to the approval of the shareholders at the 2023 AGM.

#### **Board Statement**

The Board has overall responsibility for the Company's ESG strategy and reporting and delegates the oversight of ESG matters to the Corporate Governance Committee. The Corporate Governance Committee exercises leadership oversight and supervision on ESG performance through the ESG Working Group.

During the reporting period, the Board was involved in the materiality assessment and prioritisation of key ESG issues. The Board has participated in interviews, questionnaires, meetings that solicit views and recommendations on ESG issues that may have significant influence on long-term sustainable development of the Company and evaluated their priorities (please refer to the "ESG Materiality Assessment" section for more information). Key ESG risks have been incorporated into the Company's comprehensive risk management system. The senior management team and business leaders have participated in assessment of ESG-related key risks and formulated risk response measures by considering the possibility, impact, and trends of key ESG risks. The Board has regularly reviewed these key risks at the Board and the Corporate Governance Committee meetings, and has made recommendations for the measures to be taken.

During the reporting period, the Board gained a clearer understanding of the evolving global ESG landscape and investor feedback on the Company's ESG performance, through regular reports from the ESG Working Group, special reports and inquiries. The Board reviewed the Company's annual ESG report and ESG issues that have significant influence on the Company's business development, including but not limiting to: (i) carbon neutrality action plan and progress; (ii) strategy and progress of sustainable social value innovation; (iii) progress and target setting of Diversity, Equity, and Inclusion (DEI); (iv) ESG reporting boundaries and other important ESG matters; (v) progress update on two global disclosure standards for sustainability and biodiversity.

# ESG Governance

# **ESG Strategy**

- Guided by our long-established vision and mission, "Value for Users, Tech for Good" is a strong cultural driving force and highly recognised by employees.
- Focus on managing risks and utilising opportunities that arise from the convergence of digital and real economies as well as the digital transformation enabling industries to extend their presence online and expand globally.

The implementation of our ESG strategy can be summarised as follows:



## **Business Operations**

- Operate in compliance with applicable laws and regulations;
- Operate business with integrity and protect the interests of shareholders and stakeholders:
- Provide our employees with a diverse, equitable, inclusive and safe work environment; empower them to pursue professional growth.



#### **Users**

- Protect the privacy of our users and the security of their data and digital properties;
- Listen to feedback from users and actively respond to their needs, enquiries and complaints, based on which we continuously enhance the quality of products and services;
- Protect our users, especially underaged users and content creators; take responsibility for the contents on our platforms.



## **Business Partners**

- Assist industries, especially small and medium-sized enterprises (SME) in each sector, in managing digital transformation;
- Ensure fair and equitable treatment when dealing with our business partners; encourage them to give us feedback on our business practices;
- Combat illegal or unwarranted behaviours that are harmful to long-term business partnerships by empowering our Risk Management and Internal Control Departments and Anti-Fraud Investigation Department.



## **Community and Industry**

- Increase community investment, and leverage our platforms and technologies to implement "Tech for Good";
- Create and promote a digitally inclusive environment:
- Contribute to the advancement of the internet industry via open-source partnerships and open platform collaboration.



## **Environment**

- Consider the environmental impact of our products and services during the development and operation stages;
- Reduce our carbon footprint and increase renewable energy use, ultimately reaching carbon neutrality in our operations and supply chains by 2030;
- Assist in driving the transition towards a lowcarbon society via the promotion of a lowcarbon lifestyle for users and technologies that enhance the management of climate change for enterprises.

The progress we achieved in the these areas is discussed under "Environmental Protection", "Care for Our People", "Protecting Digital Rights", "Beneficial Technologies", "Creating Social Values" and "Business Ethics".

#### **ESG Governance Structure**

# **ESG Working Group**

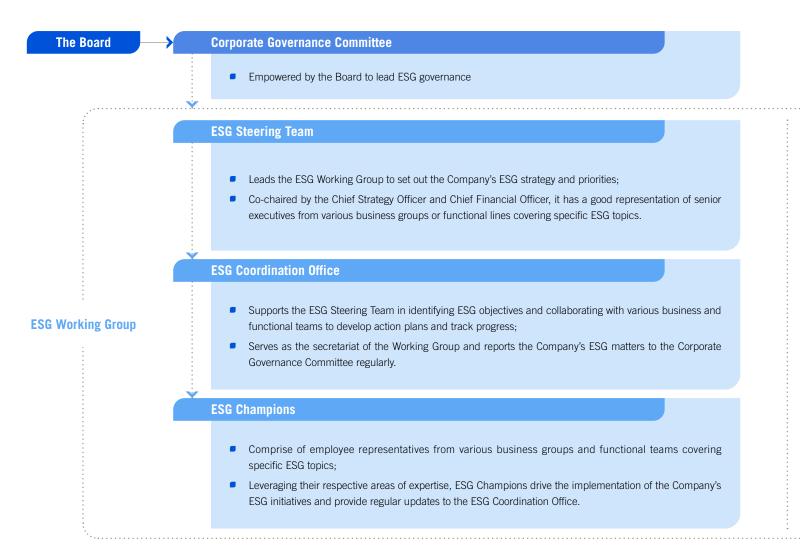
The Company adopted a three-tier structure to support ESG governance and performance enhancement. Since the establishment of the ESG Working Group (see chart below) in 2021, the Corporate Governance Committee regularly tracked the Company's ESG efforts and progress via inquiries, written reports and face-to-face meetings, and has reviewed the annual ESG report prepared by the ESG Working Group.

Five special committees were established under the ESG Working Group to promote internal collaboration and performance management of key ESG topics. These five committees focus on user privacy and data security, Diversity, Equity and Inclusion (DEI), supply chain management, biodiversity protection, and ESG communications. The ESG Working Group, through the annual meeting and many special discussion sessions, provides ESG Champions with a better understanding of how ESG relates to their daily work, the problems of greenwashing and bluewashing and how to prevent them from happening.

In 2022, we issued new ESG policies, including *Environmental Protection Management System, Biodiversity Statement, and Our Commitment to Diversity, Equity and Inclusion.* We also continuously updated existing policies on human resources, privacy and security, anti-corruption, anti-monopoly, and anti-money laundering. More information about Tencent's ESG policies can be found on our official website, under the "*ESG – Corporate Governance – Policy*" page.

We gained recognition from investors, research institutions, and ESG rating agencies.

- In June 2022, Institutional Investor, an international business publisher, ranked Tencent as the No. 1 ESG performer in the Asia-Pacific region (excluding Japan) based on a survey of over 6,000 professional investment and financial services institutions.
- In December 2022, Global ESG Monitor, an international non-financial reporting research institution, ranked Tencent as the eighth most transparent company in the world.
- In February 2023, we were included in the 2023 S&P Sustainability Yearbook and recognised as the industry mover for achieving the strongest improvement in our industry, which was due to the significant increase in our S&P ESG score.



#### **User Privacy and Data Security**

Enhance disclosure of information related to user privacy and data security protection issues; assess the applicability and feasibility of joining relevant international initiatives or industry coalitions

#### **Diversity, Equity and Inclusion (DEI)**

Explore the overall direction of DEI, advise and promote the implementation of DEI-related objectives and implementation plans, etc.

#### Special Committees

Integrate ESG concepts into the supply chain management process, discuss with suppliers the basic principles of ESG on the operational side, and strengthen supply chain ESG management capabilities

#### **Biodiversity Conservation**

**Supply Chain Management** 

Promote biodiversity awareness through multi-scenario story telling, implement biodiversity conservation initiatives, and explore quantitative impact measurement

#### **ESG Communications**

Develop ESG communication strategy, enrich communication contents and expand communication channels to enhance ESG awareness internally and recognition from stakeholders externally

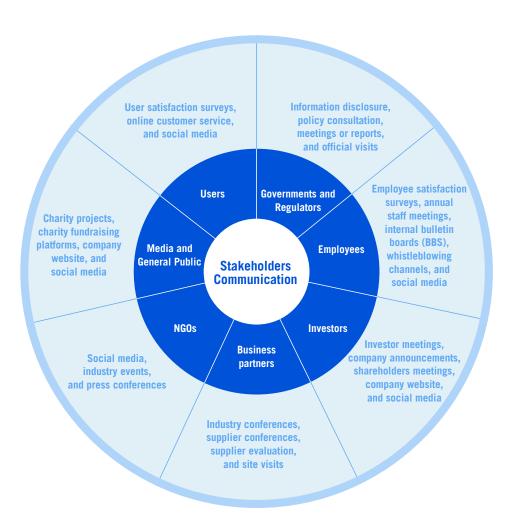
# **ESG Materiality Assessment**

#### **Integrating ESG into Risk Management**

We have formulated the Risk Management and Internal Control Policy and related risk management processes, regularly identified and assessed risks, and established appropriate risk response measures. We integrate ESG-related factors. including climate change, into the Company's risk assessment and internal control management processes. We also conduct regular risk identification and assessment, and formulate appropriate risk response measures accordingly. For more information on our risk management and internal control, please refer to the "Corporate Governance Report" section of Tencent 2022 Annual Report.

#### **Stakeholder Communication**

Opinions and suggestions from stakeholders are particularly important for us to effectively identify ESG risks and enhance ESG management. We regularly engage with our stakeholders to learn about their expectations and feedback on our ESG performance. Our stakeholders include users, governments and regulatory bodies, employees, investors, business partners, non-governmental organisations (NGOs), the media and the public. Our communication channels include but are not limited to the Company's Official Accounts in our own social platforms, verified social media accounts in third-party platforms, online and offline meetings, investor and press conferences, and employee satisfaction surveys.



#### **Materiality Assessment**

To identify and understand various ESG topics that are of high priority to Tencent, we engaged an external professional agency to conduct a materiality assessment. The assessment process is as follows:

- 1 Identify a list of potential material ESG topics by taking into considerations of 1) common issues raised by internal and external stakeholders, and 2) topics highlighted in recognised reporting frameworks, including the Hong Kong Stock Exchange's (HKEx) ESG Reporting Guide, the Task Force on Climate-Related Financial Disclosures (TCFD), the Global Reporting Initiative (GRI) Standards, and the Sustainability Accounting Standards Board (SASB) Standards, and 3) global and domestic sustainable development trends. New items/topics and adjustments have been added to last year's list of ESG topics, including Biodiversity, Diversity, Equity and Inclusion, Support Real Economy Development, and EdTech.
- 2 Identify concerns and views on material ESG topics via in-depth interviews and online surveys across stakeholder groups. This year, interviews were conducted with stakeholders, including Board members, senior executives and relevant management personnel, covering more business groups than last year. The interviewees shared their views and commented on Tencent's material ESG topics. Stakeholders who participated in online surveys include Board members, senior executives, employees, customers (users and business partners), suppliers, investors, governments and regulatory bodies, scholars, media and NGOs.
- 3 Prioritise relevant material ESG topics through materiality mapping.

The material topics which fell into the upper right quadrant of the matrix were defined as highly material to the Company. These material ESG topics include Data Privacy and Cyber Security, Responsible Contents, Protection and Development of Underaged Users, Support the Digital Upgrade of the Real Economy, Intellectual Property, Anti-corruption, Employee Health and Safety, Energy Management, Employee Career Development and corporate governance.



Impact on Tencent's Business

- 1 Climate Change Response and Carbon Neutrality
- 2 Waste Management
- 3 Water Management
- 4 Energy Management
- 5 Biodiversity
- 6 Environmental Impact of Product &Services
- Employee Rights & Benefits
- 8 Employee Career Development
- 9 Diversity, Equity and Inclusion
- 10 Employee Health and Safety
- 11 Labour Practices
- 12 EdTech
- 13 HealthTech

- 14 FinTech
- Support the Digital Upgrade of the Real Economy
- 16 Digital Inclusion and Digital Literacy
- 17 Intellectual Property
- Responsible Content
- User Privacy and Cyber Security
- 20 Protection and Development of Underaged Users
- 21 Community Investment
- 22 Supply Chain Management
- 23 Anti-corruption
- 24 Anti-monopoly
- 25 Anti-money laundering
- Corporate Governance
- Active Stakeholder Engagement



# **Integrate ESG Concepts into Corporate Culture**

We promote the values of "Integrity, Proactivity, Collaboration, Creativity" as our guiding principles for our Company's long-term sustainable development.

We value the views of our employees and engage an independent third-party organisation to conduct annual employee engagement and satisfaction surveys regarding their experience at Tencent, cultural values, corporate strategy and long-term development. In 2022, more than 80% of our employees expressed their satisfaction with cultural/values, which has remained as one of the top three attributes in the survey for four consecutive years.

We uphold our vision and mission of "Value for Users, Tech for Good" and encourage every employee to live out our values. We try to build a business ecosystem of integrity and mutual trust, accelerate the transition towards a low-carbon economy, build a working environment that is diverse, equitable and inclusive, and propose innovative solutions for social problems.

In 2022, more than 80% of our employees expressed their satisfaction with cultural/values, which has remained as one of the top three attributes in the survey for four consecutive years.

We also continue to promote the integration of ESG into our corporate culture and provide guidance to our employees through policies and initiatives, including:

#### **Initiatives**

- We introduced "Ruixue+" culture, which promotes a healthy workplace culture of equity and respect. After a year of implementation, it was highly recognised by employees and became the highest satisfaction indicator of the year;
- We formulated the Tencent Sunshine Code of Conduct and required all employees to attend the online training course and pass post-training assessment. The sunshine code promoted ethical behaviour and clarified the "red line" for employees and other related parties;
- We upgraded our "employee donation matching" programme, encouraged our employees to take part in charitable initiatives and volunteer work, as well as participate in sustainable social value innovation.

#### **Action Plan**

- We advocate a workplace culture of diversity, equity, and inclusion (DEI), establish the DEI Special Committee, and conduct trainings to help employees gradually develop DEI awareness;
- We pledge to achieve carbon neutrality in our operations and supply chain, and to use green power for 100% of all electricity consumed by 2030. At the same time, we will actively integrate climate-friendly technologies into our products and services to achieve low-carbon transition for our company and society at large;
- We focus on long-term creation of sustainable social value by driving innovation in technologies, products and models, and providing solutions to social challenges;
- We continue to promote ESG awareness among our employees. The Company's ESG strategy and related policies, initiatives and outcomes are explained to all employees through special trainings and Weixin Mini Program Q&As.





Uphold principles, ethics, openness, and fairness.

Pursue positive contributions, volunteer for responsibility and push for breakthroughs.

**Proactivity** 

# **Collaboration**



Be inclusive and collaborative, strive to progress and evolve.

# **Creativity**



Push for breakthrough innovations, explore the possibilities of the future.

#### **Tencenter ESG Knowledge Monthly Challenge**

We set up the Tencenter ESG Knowledge Monthly Challenge Weixin Mini Program to interactively convey the Company's ESG strategy, policies and initiatives to all employees, promoting the integration of ESG in our corporate culture through engaging articles and quarterly rankings.

During the reporting period, the ESG issues covered in the Challenge included user privacy and data security, DEI, biodiversity, crosscultural integration, public charity and volunteerism, helping employees understand more deeply the importance of ESG in their daily works.





# Our Approach and Progress

Tencent is committed to reducing the dependence and impact of its operations on the environment, and generating environmental benefits through our products and technologies. To continuously improve our environmental management capability, we have defined ESG Working Group's role in environmental protection, as well as our reporting mechanism. The ESG Working Group is responsible for the overall management and reports to the Board of Directors and the Corporate Governance Committee regularly.

We formulated and implemented a group-level *Environmental Protection Management Policy*, which requires employees to incorporate green considerations into the development and management of our products and services. We are bound by the *Environmental Protection Management Policy* to consider both risks and opportunities in our environmental management process. We identify, assess, and address environmental risks while using our technologies to support users, industries and the society transition to a greener future. We have defined the following five environmental topics that will drive our efforts, including climate change and carbon neutrality, efficient use of energy and water resources, waste management, biodiversity protection, and green procurement.

# **Progress made in the five environmental topics**

Climate change and carbon neutrality

# SBTi

Absolute greenhouse GHG reduction targets, which are consistent with the Paris Agreement and been validated by SBTi, with targets covering Scope 1, 2 and 3 Efficient use of energy and water resources

# 336,419.5 MWh

Purchased 336,419.5 MWh of green power and avoided 241,952.9 tonnes of carbon emissions

Waste management

# 2,740.6 tonnes

Reused 2,740.6 tonnes of electronic equipment and avoided the generation of additional electronic waste

Biodiversity protection

# **Biodiversity Statement**

Published a statement that outlines our strategies and approaches for protecting biodiversity and the ecosystem Green procurement<sup>1</sup>

# **Supplier** selection

Formulated internal guidelines to prioritise green procurement

# Climate scenario analysis

Carried out climate scenario analysis and used the five scenarios released by the Intergovernmental Panel on Climate Change (IPCC) and International Energy Agency (IEA) to analyse climate-related risks and opportunities

# 19.6 MW

The installed capacity of renewable energy at data centres exceeded 19.6 MW

# 166 tonnes

Demagnetised and crushed 166 tonnes of used hard disks, which were recycled by qualified institutions

# 15 million

Employed our technologies and social platforms to help approximately 15 million users increase their awareness of national parks

# Scope 3 reduction program

Launched a Scope 3 emission reduction program, assessed the carbon emission reduction potential of our procurement and downstream leases, and set mitigation measures

For more information on green procurement, please refer to the "Business Ethics – Sustainable Supply Chain" section of this report.



# Tackle Climate Change

# **Manage Climate Risks and Opportunities**

We apply digital technologies in climate change mitigation and adaptation. On the one hand, we are mitigating our impacts on climate by reducing the carbon footprint of our products and services, and have launched a carbon neutrality plan in 2021 that includes our supply chain. On the other hand, we comprehensively assess our climate risks and opportunities by applying climate scenario analysis, relevant databases, and models; developing corresponding measures; and disclosing information in accordance with the TCFD framework. We are also proactive in leveraging our digital technologies and products to assist our customers, industries and society to achieve a low carbon transition.



#### Governance

#### **Board of Directors**

The board empowers the Corporate Governance Committee (the Committee) to oversee ESG issues, which include the management of climate risks and opportunities, carbon neutrality targets, and annual progress.

During the reporting period, the ESG Working Group reported the results of the company's annual climate risk and opportunity assessment, as well as 2022 carbon neutrality progress, to the Committee through two meetings.

#### Management

Carbon Neutrality Joint Project Group and the ESG Working Group are responsible for Tencent's climate risk and opportunity management.

The Carbon Neutrality Joint Project Group, led by the Group's Senior Vice President, consists of departments, including Strategy Department, Carbon Neutrality Lab, Data Centre Green Energy Team, Facilities Management Team under the Admin Department, and Low Carbon-related Products Team. The group's major responsibilities include:

- Identifying climate-related risks and opportunities;
- Developing climate response plans and implementing mitigation measures, while exploring business opportunities;
- Developing climate-related targets and setting metrics to regularly monitor the progress.

The ESG Working Group has major responsibilities including:

- Assessing climate risks and opportunities, and monitoring the implementation of response measures;
- Assessing climate-related targets using international and national initiatives or standards (including Science Based Target Initiative (SBTi));
- Conducting annual audits of climate-related metrics (including greenhouse gas emissions).

#### **Strategy**

Climate change poses both risks and opportunities for Tencent. To develop a more targeted climate strategy, we further applied the climate scenario analysis to quantify potential climate-related risks and opportunities in 2022.

#### **Climate Scenario Selection**

The uncertainty of climate risks and opportunities in the short-term, medium-term and long-term makes the development of climate measures challenging. We therefore need to consider different global temperature rise pathways, climate policy changes, time horizons and other factors, to conduct a comprehensive analysis of the climate risks and opportunities associated with our operation. In 2022, we engaged professional consultants to conduct the climate scenario analysis.

Risk and Opportunity Category		Time Horizons	Clima	te Scenarios Selection
Physical Risks <sup>1</sup>	Acute, Chronic	Baseline <sup>2</sup> 2030 2050 <sup>3</sup>	Repo IPCC	Sixth Assessment Int (AR6) Shared Socioeconomic Intervals (SSP): Intervals
Transition Risks	Policy & Legal, Technology, Market, Reputation	2030 2040 2050 <sup>4</sup>	IEA •	Stated Policies Scenario (STEPS) Net Zero Emissions Scenario (NZE)
Transition Opportunities	Resource Efficiency, Energy source, Products & Services, Market, Resilience	_		

Physical climate risks are assessed by 30-year data based on the standard of the World Meteorological Organization.

## **Climate Risks and Opportunities Analysis**

Through the analysis of five climate scenarios, we identified physical and transition risks and opportunities that may emerge in the future. Based on this, we conducted a quantitative analysis of the potential material climate risks and opportunities using data from the World Climate Research Programme (WCRP), World Resources Institute (WRI), IEA, and the Network for Greening the Financial System (NGFS) and differentiated the magnitude of impacts in different time frames. The results of the physical risks during the baseline period were verified against the actual operating conditions. Through the scenario analysis conducted in 2022, we have identified the following material climate risks and opportunities for Tencent.

Category	
Acute Physical Risks	Extreme heat
	Flooding – including river, coastal and extreme rainfall
	Tropical cyclones
	Wildfires
Chronic Physical Risks	Water stress and drought
Policy and Legal Transition Risks	Implementation of carbon emission reduction policies
	Increased requirements on climate change action and disclosure
Market Transition Risks	Shift in market preference towards low-carbon products
Product and Service Transition Opportunities	Opportunity to sell low-carbon products

Transition risks and opportunities are assessed at 10-year intervals for capturing the short-term, medium-term and long-term impact of abrupt changes.



Baseline covers the data for the period 1985-2014, which is used to assess the ability of climate models to simulate the historical records of climate hazards.

<sup>2030</sup> and 2050 covers the data for the periods 2015-2044 and 2035-2064, respectively. These data are used to evaluate the potential impact of physical climate risks on operations in short-term, medium-term and long-term.

## **Risk Management**

Tencent's climate-related risks are integrated into the company's risk assessment and control system. As we accumulate experience in climate risk management, we have developed and applied the following procedures:

# **Metrics and Targets**

The selection of appropriate metrics, target setting, and tracking progress are key tools for Tencent to effectively manage climate risk.

Step 1: Risk Inventory	<ul> <li>Preliminary identification of climate risk and opportunity aligned with the TCFD categories</li> <li>Analyse sector and peer best practices</li> <li>Interviews with climate risk related departments</li> <li>Generate a long list of climate-related risks and opportunities (CRROs)</li> </ul>
Step 2: Scenario Analysis	<ul> <li>Selection of low and high carbon climate scenarios for analysis</li> <li>Selection of the time horizon for analysis</li> <li>Conducting scenario analysis for CRROs to identify material climate risks and opportunities</li> </ul>
Step 3: Risk Quantification	<ul> <li>Selecting quantitative indicators, database and models for quantitative analysis</li> <li>Developing financial impact transmission pathways</li> <li>Developing financial impact quantification tools</li> <li>Quantifying the financial impact of material risks and opportunities</li> </ul>
Step 4: Risk Response	<ul> <li>Developing risk management measures for material CRROs</li> <li>Assessing the effectiveness of the risk mitigation measures</li> </ul>

Category	Metrics and Targets
Carbon Emission	Metrics: ■ Total GHG emissions (Scope 1, 2, 3) (tCO₂e)
	<ul> <li>Total GHG emissions intensity</li> <li>(tonnes CO<sub>2</sub> /RMB million)</li> </ul>
	<ul> <li>Scope 1 emissions (tCO<sub>2</sub>e)</li> </ul>
	<ul> <li>Scope 2 emissions (tCO<sub>2</sub>e)</li> <li>Scope 3 emissions (tCO<sub>2</sub>e)</li> </ul>
	<ul> <li>Targets:</li> <li>Carbon neutrality target: Achieve carbon neutrality in our operations and supply chain by 2030</li> </ul>
	<ul> <li>Absolute reduction pathway: Achieve a 70% reduction in absolute Scope 1 and 2 emissions, and a 30% reduction in absolute Scope 3 emissions from a 2021 base year by 2030</li> </ul>

Category	Metrics and Targets
Energy	Metrics:
	<ul> <li>Total energy consumption (MWh)</li> </ul>
	<ul> <li>Direct energy consumption (MWh)</li> </ul>
	<ul> <li>Indirect energy consumption (MWh)</li> </ul>
	<ul> <li>Total energy consumption per revenue unit (MWh/ RMB million)</li> </ul>
	<ul> <li>Direct purchased renewable energy (MWh)</li> </ul>
	<ul> <li>Electricity generated from onsite renewable energy facilities (MWh)</li> </ul>
	<ul><li>The proportion of renewable energy in the energy mix</li><li>(%)</li></ul>
	<ul> <li>Installed capacity of self-built renewable energy facilities (MW)</li> </ul>
	■ Data centre average Power Usage Effectiveness (PUE)
	Targets:
	<ul> <li>By 2030, achieve 100% renewable electricity</li> <li>By 2025, reduce the electricity consumption per capita in our owned office buildings in Mainland of China by 15% from a 2019 base year</li> </ul>
	<ul> <li>The average PUE of self-built data centres will not exceed 1.35</li> </ul>

Category	Metrics and Targets				
Water	Metrics:				
	<ul> <li>Amount of water consumed (tonnes)</li> </ul>				
	<ul> <li>Water consumption per revenue unit (tonnes/RMB million)</li> </ul>				
	Targets:				
	<ul> <li>By 2025, reduce water consumption per capita in our owned office buildings in Mainland of China by 15% from a 2019 base year</li> </ul>				
Solid	Metrics:				
Waste	<ul> <li>Hazardous waste disposal quantity (tonnes)</li> </ul>				
	<ul> <li>Hazardous waste per revenue unit</li> </ul>				
	(kg/RMB million)				
	<ul> <li>Non-hazardous waste disposal quantity (tonnes)</li> </ul>				
	<ul> <li>Non-hazardous waste per revenue unit (kg/RMB million)</li> </ul>				
	<ul> <li>Reusing amount of electronic equipment (tonnes)</li> </ul>				
	Recycling amount of electronic waste (tonnes)				
	Targets:				
	<ul> <li>All Tencent-owned office buildings in Mainland of</li> </ul>				
	China will implement waste sorting				
	<ul> <li>100% of the destroyed hard disk components and discarded lead-acid batteries are properly disposed by qualified institutions</li> </ul>				

# **Carbon Neutrality Initiative**

In January 2021, Tencent unveiled its carbon neutrality plan, which was followed by the announcement of its carbon neutrality target in February 2022.

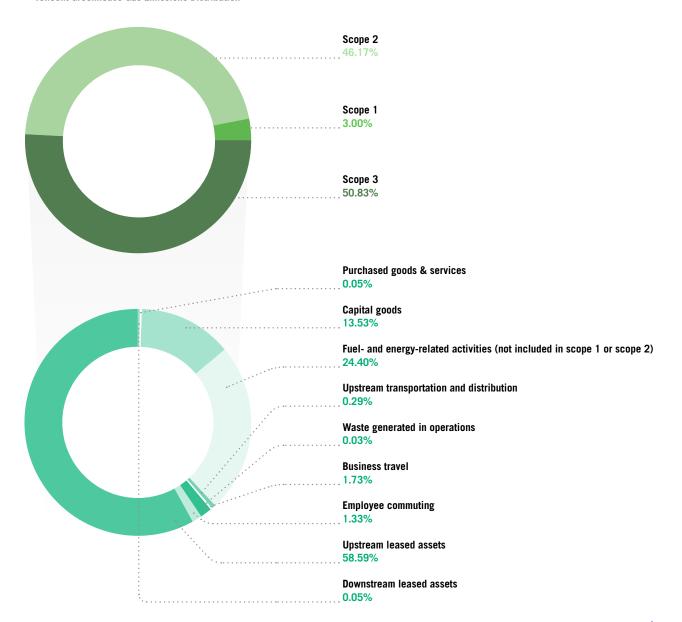
To demonstrate our commitment to reducing carbon emissions, we have further refined our carbon reduction pathway based on our carbon neutrality commitment and set absolute emissions reduction targets aligned with the Paris Agreement, with targets covering Scope 1, 2 and 3 emissions, which have been validated by SBTi.

Carbon neutrality	Carbon neutrality	Achieve carbon neutrality across own operations and supply chain by 2030
targets	Green power	Use green power for 100% of all electricity consumed by 2030
Absolute GHG emission targets	Scope 1 and 2	Reduce by 70% (from a 2021 base year) by 2030
	Scope 3	Reduce by 30% (from a 2021 base year) by 2030

**Baseline emissions** Expected greenhouse gas emissions **Active emissions** reduction measures **Total emissions expected** 2021 Carbon offset Baseline emissions: Level of GHG emissions emitted in the absence of any measures to reduce

In 2021, we inventoried our GHG emissions using the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard developed by WRI and the World Business Council for Sustainable Development (WBCSD). In 2022, we upgraded our GHG inventory system by adding to the international standards we followed in 2021, including the Guidance for ICT Companies Setting Scientific Targets issued by the SBTi, and the 14064-1:2018 published by the International Organization for Standardization (ISO). In 2022, Tencent's total GHG emissions were 5,739,723.7 tCO<sub>2</sub>e.

#### **Tencent Greenhouse Gas Emissions Distribution**



## **Decarbonisation Roadmap and Annual Implementation Progress**

We follow the principle of emissions reduction and green power first, followed by offset, and seek to achieve carbon neutrality through the following measures:

Enhance energy efficiency <sup>1</sup>	Reduced energy consumption throughout the lifecycle of data centres, including construction, operat waste management, while continuously optimising its PUE.  Made offices more sustainable through improving our green office management, procedures and practice.	·
Adopt renewable energy <sup>2</sup>	Constructed distributed renewable energy facilities with an installed capacity of over 19.6 MW by end of Purchased more than 336,419.5 MWh of green power and avoided 241,952.9 tonnes of carbon emissions.	
Explore carbon offset and carbon capture technologies <sup>3</sup>	Explored CCUS (Carbon Capture, Utilization and Storage) technologies, including carbon dioxide stobasalt.  Explored the feasibility of carbon trading by being one of first members of the Hong Kong International Market Council.	J

## Support our Users, Industries and Society in their Low-Carbon Transition<sup>4</sup>

As an Internet company, we seek to not only reduce the negative environmental impact of our operations and supply chain, but also explore the use of technologies to enable our users to live a greener lifestyle, and provide low-carbon digital solutions for various industries.

Promote sustainable lifestyles to users	<ul> <li>Published Blue Planet, a Weixin Mini Program which quantifies users' carbon footprint and encourages the public to reduce their carbon emissions.</li> <li>Launched Carbon Island, a simulation game which enables players to build a thriving island that seeks sustainable economic growth.</li> <li>Carried out the low-carbon trivia to popularise sustainable living among users.</li> </ul>
Provide low carbon digital solutions for industries	<ul> <li>Mobile payments expand green payment scenarios.</li> <li>Over 200 million users used Tencent Docs, which collectively reduced 199,650 tonnes of carbon emissions.</li> <li>Provided digital solutions to help the energy industry decarbonise.</li> </ul>
Explore low-carbon technologies for society	<ul> <li>Established a low-carbon technical innovation platform, including "TanLIVE", an online low-carbon innovation community, and the Carbon Neutrality Professional Committee and Global Carbon Neutral Technology Alliance.</li> <li>Explored cutting-edge carbon emission reduction technologies, including the zero-energy radiative cooling technology for glaciers, and drought-resistance rice.</li> </ul>



# Green Operations

Tencent places great importance on improving its energy and resource efficiency, as well as the 3Rs (Reduce, Reuse and Recycle) of waste management. We embed green considerations into Tencent's operation and strive to generate greater environmental benefits by continuously improving its products and services.

Complying with The Environmental Protection Law of the People's Republic of China (PRC), The Energy Conservation Law of PRC, and other applicable laws and regulations in regions where we operate, we reduce the environmental impact of the operation process, construct green computing facilities and create green offices.

# **Green Cloud Computing**

While digitalisation has improved the operational efficiency of the industrial sector, the issue of managing data centre's energy consumption has become increasingly significant. According to the IEA report, the data centre industry accounts for approximately 0.9-1.3%<sup>1</sup> of global total electricity consumption in 2021.

Underpinned by our green operational strategy of improving energy efficiency and reducing natural dependency, we have been improving the way we manage our data centres by embedding green considerations throughout their lifecycle – from their site selection, design, construction, operation, to waste disposal stages. Greenpeace, an international environmental agency, ranked the carbon neutral performance of China's internet cloud service companies annually, and Tencent ranked first for two years.

## **Design and Construction**

Tencent conducts a thorough environmental impact assessment and energy-saving assessment before constructing its data centres. In particular, these assessments evaluate the impacts of its construction and operation processes on soil, water, atmosphere, ecosystem, and energy consumption. Comprehensive measures were developed accordingly to avoid or mitigate such impacts.

#### Low-carbon data centre infrastructure

Tencent's fourth-generation data centre (T-block) simplifies the construction of data centres using modular technology. Through standardisation, productisation, and prefabrication of T-block, we can effectively shorten the construction period and reduce carbon emissions during construction.

During operation, T-block adopts an efficient cooling technology, as well as an efficient power supply and distribution architecture. T-block data centre can achieve an annual average PUE of 1.2x, and some modules have an average PUE of less than 1.2 throughout the year, saving energy by approximately 30% compared to traditional data centre construction.

#### **Site selection optimisation**

To optimise energy and resource consumption during operations, we abide by the following green site selection criteria for our data centres:

 Suitable climate with low cooling demand, adequate supply of renewable energy, electricity stability, low physical climate risk, and fewer natural hazards. In 2022, Shanghai Data Centre was awarded "LEED Data Centre Operation and Maintenance" (LEED 0+M: DC) Platinum Certification. By the end of 2022, Tencent's data centres have received 25 green and low-carbon related certificates.



## **Operation Stage**

Continual reduction of PUE is one of the critical measures for promoting the green operation of data centres. Tencent applies energy-saving technologies, digital management, and other means to continually optimise the PUE, and utilise renewable energy to further reduce its carbon emissions.

#### **Application of energy-saving technologies**

#### Efficient air conditioners research and development (R&D)

In 2022, we developed an energy-saving air conditioner, which uses indirect evaporative cooling technology to improve the energy efficiency of data centres. An energy saving rate of 20% was achieved in a comparison experiment against typical operations. The energy-saving air conditioners have been installed in our Qingyuan and Huailai data centre.

#### Liquid cooling technology

We have applied cold plate liquid cooling technology, which uses liquid with a specific high heat capacity as a medium to transfer the cooling capacity, effectively reducing energy consumption compared to air cooling technology and achieving a PUE of 1.06 according to the test data.

#### Waste heat recovery

The waste heat generated during the operation of data centre servers can be recovered. By heating the cool reclaimed water, the magnetic levitation heat pump extracts waste heat. On one hand, it reduces the cooling loads and water consumption in the server room by returning the cooling water there. On the other hand, the waste heat is transferred to sites in need to avoid energy waste. In 2022, the waste heat recovery facility at the Tianjin data centre recovered a total of 4.000 GJ thermal energy and avoided 440 tonnes of carbon emissions.

#### Variable-frequency energy-saving technology

Variable-frequency energy-saving technology is applied to our refrigeration units, water pumps and other equipment. The equipment's frequency is adjusted promptly according to the actual operation needs. By doing so, the energy consumption and actual operation needs can be better aligned, thus reducing energy waste.

#### Green energy usage

#### Renewable energy facilities

The T-block data centre has a flat and sizeable rooftop that can support a large capacity distributed rooftop photovoltaic (PV) facility to produce continuous renewable energy. The PV modules absorb solar energy and convert it into electrical energy, which is directly supplied to the interior of Tencent's data centre, providing green capacity for IT and cooling electrical equipment, while also reflecting solar heat and reducing the cooling loads of data centres.

In 2022, the distributed photovoltaic with an installed capacity of 19.6 MW was built, which generated 21,870.0 MWh of renewable energy and avoided 15,728.9 tonnes of carbon emissions.

#### Procurement of green power

Since 2021, we have started exploring marketbased green power trading, which adheres to the principles of additionality, traceability and proximity.

- "Additionality" means that the green power we procure is not subsidised, and ensuring additionality will enable our green power procurement efforts to better promote the generation of renewable power;
- "Traceability" means that the green power we procure can be clearly traced back to the source of the energy, ensuring compliance, transparency and sustainability of the source:
- "Proximity" means that in the energy procurement process, priority is given to new energy projects that are geographically close to the data centre. This can effectively reduce energy transmission losses and improve the efficiency of energy utilisation.

In 2022, we consumed 336,419.5 MWh of green power and avoided 241.952.9 tonnes of carbon emissions. We have also signed over 534,000 MWh of green power trading contracts for use in 2023, allowing the Huailai East Park, Huailai Ruibei, Jiangsu Yizheng and Qingyuan Qingcheng data centres to reach 100% green power by 2023.

- Microgrid and the construction of Virtual Power Plant
- In 2022, we launched pilot projects for the following two technologies: microgrid and Virtual Power Plant platform. The use of these two technologies can effectively increase the efficiency of renewable energy use, enabling data centre loads to join the power generation capacity while becoming more flexible and resilient to better interact with the future grid:
- Microgrid consists of distributed renewable energy facilities, energy storage facilities and other devices. It is a renewable energy generation and distribution system for data centres. By the end of 2022, approximately 60MW of distributed PV and microgrid projects are under construction, including the pilot projects of integrated building PV and energy storage.
- The Virtual Power Plant platform links multiple of our data centres together. allowing efficient dispatching of renewable energy and improving system efficiency through forecasting operational load and power generated from renewable sources.

#### **Intelligent operation**

By the establishment and implementation of Tnebula Platform, we realise intelligent management of data centres, including digital sensing networks and automated operations by means of a low-code system development platform.

- **Digital sensing:** Through the Internet of Things (IoT) equipment, it has enabled real-time automatic monitoring of data sources, transmission channels, data warehouses and other full-link data;
- Automated operations: With the accumulation of operational data, functions can be constructed for operations, including automatic configuration, warning, and change;

In 2022, we have increased our investment in AI (Artificial Intelligence) technology for sustainable data centre operations and are making progress in AI energy efficiency and battery health prediction.

- Data centre PUE optimised by Al: Al energy-saving model refines the system cooling prediction and realises automatic control. The average PUE of data centres that adopted this model dropped by 0.02;
- Battery health and life extension by Al: Use Al to improve management and prediction accuracy and apply it to automatic control
  devices and battery health prediction, including calculating battery life under different usage conditions through intelligent
  algorithms and exploring optimised usage states, thus extending battery life and reducing waste generation.



## **Waste Management**

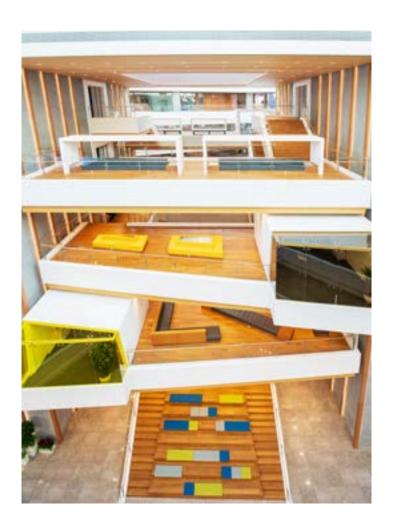
Regarding waste management, Tencent follows the 3Rs of waste management and established a Green Recycling Centre in 2022. The Green Recycling Centre processes the electronic waste generated by our data centres. Through repairing, renovating and upcycling electronic equipment, we prolong their lifespan, reduce waste, and lower carbon emissions by minimising the need for new purchases.

Upcycling and reusing servers	By upcycling our used servers and other electronic equipment, their lifespans are extended and can be put back into operation. 2,456 tonnes of servers were upcycled and reused in 2022.
Reusing components	We dismantle decommissioned end-of-life electronic equipment and recover the reusable component for upcycling.
Waste recycling	After demagnetising and crushing the waste hard drives to ensure information security, we provide the resulting recyclable hard drive particles to qualified recycling vendors. In 2022, 166 tonnes of waste were recycled.
Packaging materials	We recycle and use recycled packaging materials for pallets and parcel packaging use.

The waste generated by our data centres is temporarily stored in warehouses and entrusted to qualified institutions. In 2022, 100% of waste was appropriately disposed, in compliance with relevant regulations.

## **Low Carbon Office**

To make our workplace more sustainable, we continue to improve energy and resource efficiency, while also minimising the impact of our office operations on the environment through the "green management", "energy-saving procedures" and "energy-saving measures".



#### **Improve Green Management**

#### **Management certification**

Our office buildings are managed according to international systems, including ISO 9001 (quality management system), ISO 14001 (environmental management system), and ISO 45001 (occupational health and safety management system).

- 100% certified: The property management of all office buildings are certified with ISO 9001, 14001, and 45001:
- Annual audit: In 2022, we conducted annual audits of ISO certification for our buildings and part of our leased buildings, and have identified and followed up on improvement measures.

#### **Green building**

During the design and construction phase of our office buildings, we uphold the fundamental principles of "safety and durability, healthy and comfortable, liveable environment, convenient living, and resource conservation", and require new buildings to be designed to meet international and local green building standards. After completion and operation, we continue to adhere to international standard guidelines to regulate our daily maintenance practices. For example, Beijing Tencent Towers and Tencent Towers A and B in Chengdu have obtained LEED Platinum certification in operation and maintenance.

#### **Digital management**

By digitalising our buildings, we are able to manage their energy and resource consumption with greater accuracy and agility.

- In order to comprehensively manage the energy consumption of office buildings, we analyse the energy consumption of each building at the end of every month through the Facility Management Platform (FM Platform). Subsequently, we monitor and rectify abnormal energy consumption data, and generate energy consumption management reports. Through continuously improving the FM Platform with the addition of new features, including prediction, early warning and control, we were able to form a closed loop of "front-end data collection back-end data analysis feedback to front-end energy consumption management".
- We have configured the Building Automation Systems (BAS), which provides real-time intelligent control of major energy consumption systems, including air conditioning, lighting and ventilation, and regulates energy consumption equipment by area based on demand, thus improving the efficiency of energy use.

## **Refine Energy-saving Procedures**

#### **Energy management**



To further refine the management of energy-consuming equipment, we have developed *Guidelines for the Operation of Energy-consuming Equipment* for air conditioning, elevators, lighting, and other office equipment to enhance energy management, while ensuring operational efficiency and comfort.

The main energy-saving measures of *Guidelines for the Operation of Energy-consuming Equipment* include:

- Air-conditioning systems: Adjusted the operating hours according to different seasons and working hours, and fine-tuned operating parameters (for example, indoor and outdoor temperature, equipment load, cooling water temperature, pressure);
- Lighting systems: Adjusted the operating hours according to different seasons, working hours, and types of office areas, in order to reduce excess electricity while maintaining adequate lighting. For example, our logo lights in the outdoor area were adjusted to energy-saving mode; the indoor office area was equipped with intelligent lighting;
- Elevator systems: Adjusted the running time and the number of available elevators to match the demand during peak and off-peak periods, so as to reduce electricity consumption;
- Other equipment: Adjusted the operating hours and frequency of equipment use over the holidays, promoted energy conservation, and carried out a strict inspection, thereby reducing standby energy consumption.

#### Waste disposal



To improve the recycling of resources, we classify and handle waste according to its category. We also promote waste reduction at the source and compliant disposal of waste.

- Garbage sorting: Installed different types of trash cans and encouraged employees to sort their waste;
- E-waste: To increase the reuse of electronic equipment, we encourage employees to apply to keep their work laptop once it has been used for a certain period of time. Other discarded electronic products will be turned over to third parties who are qualified to recycle them;
- Hazardous waste: Hazardous waste including toner cartridges and ink cartridges generated in the course of office operation is collected and properly stored in the hazardous waste management warehouse, and subsequently entrusted to a qualified third party for 100% non-hazardous and compliant disposal;
- Food waste: Following pre-treatment with a grease trap, food waste is transferred to a third party for treatment and recycling.

## **Implement Energy-saving Measures**

We regularly evaluate the energy consumption levels of office buildings and improve their energy efficiency by upgrading current systems, including air-conditioning systems, lighting systems, and Heating, Ventilation, and Air Conditioning (HVAC) systems.

#### **Air-conditioning systems**



We reduced our energy consumption by upgrading to more energy-efficient air conditioning equipment and control systems, as well as implementing measures, including turning off air conditioning systems during the winter.

#### **Lighting systems**



We achieved energy saving and consumption reduction by replacing current lighting systems with more energy-efficient lighting fixtures, supplying more controllers and adjusting operation strategies. In 2022, Beijing Tencent Towers replaced 1,800 LED lights, adjusted the circuits of 5,651 lighting fixtures, and limited the lighting time, cutting electricity consumption by 513,739 kWh hours and avoiding 369.5 tonnes of carbon emissions.

#### Other systems



We reduced our energy consumption in other systems including the HVAC systems by adding time controls, adjusting the operation strategy, and advancing the inspection time. In 2022, Tencent Binhai Towers added time controls to fans and energy-consuming water pump equipment, and adjusted operation strategies to reduce electricity consumption by 236,074 kWh and avoided 169.7 tonnes of carbon emissions.



# Contribute to a Low Carbon Development

Tencent's carbon neutrality commitment is not limited to its own operations and supply chain. We also focus on leveraging our digital technology and products to assist users, industries and society in transforming to a low carbon future.

# **Promote an Eco-friendly Lifestyle**

The public's participation plays a key role in driving the society's low-carbon transformation. While serving a wide range of users, Tencent advocates environmentally friendly behaviours and lifestyles through innovation in the popularisation of environmental protection concepts.

#### Incentivise reduction in carbon footprint

We quantified users' carbon footprint associated with their public transport usage through a Weixin Mini Program, Blue Planet, and converted them into carbon credits, which has motivated the public to live more sustainably.

In 2022, more than 1 million users participated in carbon reduction activities through Blue Planet (taking public transportation or the subway with the use of Tencent Map). The emissions reduced from these activities were certified by a third party, making the first carbon inclusive emission reduction trading in Shenzhen. The trading amount will be fully refunded to the users in the form of vouchers.



#### Popularise low carbon knowledge

In 2022, we launched a three-week low-carbon trivia, where users were given the challenge to answer 100 questions correctly. Within three days of the campaign's launch, approximately 600,000 people participated nationwide with over 5 million questions answered.

#### Raise environmental awareness via simulation games

Carbon Island, an interactive simulation game, allows players to become familiar with climate change as well as learn how to balance sustainable and economic growth. Carbon Island has been awarded the First to Implement award from the United Nations Environment Programme's Green Game Jam Award for two consecutive years.

In 2022, with the activation of "Explore the Blue, Protect the Earth", Carbon Island promoted environmental protection concepts, including marine ecological protection and ocean carbon sinks through its game. The number of participants for this activity has exceeded 10.24 million, and awareness of low carbon and marine environmental protection has been raised.



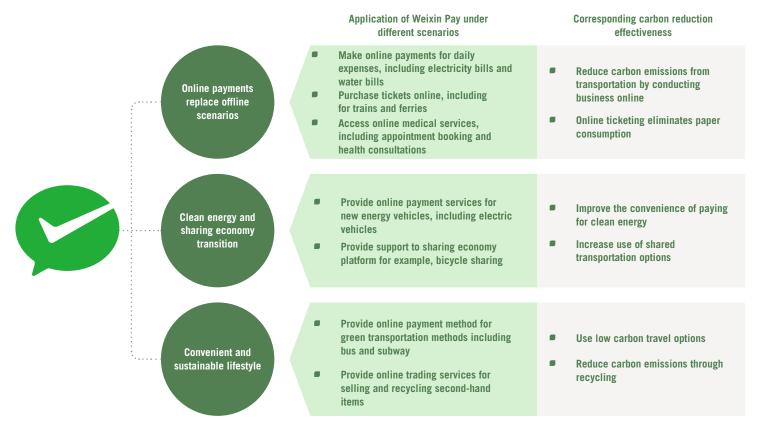
# **Empower Industries to Transition to a Low Carbon Future**

The application of digital technology plays a key role in promoting industrial efficiency, energy saving, and carbon reduction. As a result, we leverage our digital technology to assist the industry in its low carbon transformation journey.

## **Green Payment**

As mobile payment develops and the concept of green payment spreads, green payment has become an integral part of the society's low-carbon transformation. Relying on its mobile payment platform, Tencent expands its green payment application scenarios, to help transform the economy towards a greener future, and to provide consumers with convenient green payment channels.

#### Using Weixin Pay to reduce carbon footprint<sup>1</sup>



#### **Remote Work**

Tencent's cloud-based products can provide solutions for enterprises that offer hybrid or remote work models, which can effectively reduce carbon emissions. Remote work helps companies decarbonise through reducing unnecessary business travel and paper use, as well as increasing efficiency through cloud computing.

- Online documents: Tencent Docs supports multiple users to collaborate on the same online document and enables cloud storage, which can effectively reduce carbon emissions while enhancing users' work efficiency. The contribution of online documents to carbon emission reduction mainly comes from: fewer carbon emissions from cloud storage compared with local storage, reduced carbon emissions during file transmission, and the popularisation of mobile editing with lower power consumption. In 2021, over 200 million users used Tencent Docs', which collectively reduced 199,650 tonnes<sup>2</sup> of carbon emissions.
- Online meetings: Tencent Meeting has online document collaboration, real-time screen sharing, instant messaging, and other features, which can help improve meeting efficiency, save travel expenses, and reduce paper waste. The average carbon emission reduced per online meeting is approximately 27.9 kgCO<sub>2</sub>e. Since its launch, users have reduced over 15 million tonnes of carbon emissions<sup>3</sup>.

## **Digitalise the Energy Industry**

Tencent is exploring digital solutions to help the energy industry, helping the energy industry to improve efficiency and intelligent decision-making levels and reduce carbon emissions.

- Tencent EnerLink is a digital platform that integrates cloud loT, big data, and other technologies to connect software, as well as hardware in various business scenarios to build an energy and carbon management platform.
- Tencent EnerTwin helps enterprises optimise energy efficiency through mapping physical objects into the digital sphere through the use of 3D engine, artificial intelligence, high-performance computing, audio and video acceleration, and other immersive convergence technologies.

In 2022, we have jointly established a Smart Energy Platform of Zero Carbon Industrial Park with our partners, which mainly performs the functions of energy data management, analysis, forecast and optimisation, enabling digitalised carbon emissions management.

Tencent, together with All-China Environment Federation, and China Internet Development Foundation's Digital Carbon Neutral Special Fund, released the *Report on Carbon Emission Pediatrian Parameters of Online Document Products* 

Committee of Green Circular and Inclusive Development of All-China Environment Federation, together with Centre for Environmental Education and Communications of Ministry of Ecology and Environment, jointly released A Study on Quantifying the Carbon Emissions Associated with Online Meetings.

From "Green Payment Contributes to China's Carbon Neutrality", a report published by Tencent and the Central University of Finance and Economics of China



# **Explore Low Carbon Technologies**

As a digital technology company, the significance of Tencent's carbon neutral strategy lies not only in its own energy saving and emission reduction, but also in the opportunity it presents to drive R&D and innovation. Therefore, we continue to promote our technological innovation and stay informed of innovative low-carbon technologies.

# **Explore cutting-edge carbon reduction technologies**

- Carbon dioxide storage in basalt: We have partnered with CarbFix, an Icelandic company, to explore the application of carbon sequestration technology in China. This technology captures and dissolves carbon dioxide in large amounts of water, which is then injected into basaltic rocks and chemically converted into minerals, fixing the greenhouse gas in the "rock".
- Zero-energy radiative cooling technology to protect glaciers: We collaborated with Nanjing University to develop materials for glacier protection, creating a radiative cooling film by using nano-spinning technology. This technology can cool objects without consuming energy and reduce the ambient temperature by 5-7°C, slowing down the rate of glacier melting.
- Water-saving and drought-resistant rice: Together with the Shanghai Agrobiological Gene Center, we have launched the water-saving and drought-resistant rice (WDR) and Digitalisation project to support the development of methodology for greenhouse gas emission reductions, as well as monitoring and measurement of greenhouse gas emission reductions from WDR by employing digital technology. Compared with conventional rice, growing water-saving and drought-resistant rice can significantly reduce greenhouse gas emissions including methane and nitrous oxide.

# **Build a low-carbon technology innovation** platform

- Innovation community: Tencent and its partners jointly launched the TanLIVE low-carbon innovation connection platform, which brings together industry, investment institutions, business incubators and other co-creators to promote the development of low-carbon technologies through the principle of "Distributed support for distributed innovations in a networked community".
- Carbon Neutral Technology Alliance: Tencent, together with industry peers have formed the Carbon Neutrality Professional Committee and Global Carbon Neutral Technology Alliance, to help break down technological barriers in addressing the climate crisis, and pledged to authorise 189 carbon neutral-related patents and technologies for free in the first round.

# **Biodiversity Protection**

Internet technologies should play a critical role in nature conservation. On one hand, we improve the utilisation efficiency of natural resources in our operations to provide services that are eco-friendly. On the other hand, we leverage our products and technologies in ecosystem protection efforts.

In 2022, we published the *Biodiversity Statement*, in which we described our strategies and approaches to protecting biodiversity and the ecosystem. Our philosophy of biodiversity conservation is formed on the United Nations' Sustainable Development Goals (UNSDGs), the Convention on Biological Diversity's (CBD) Kunming-Montreal Global Biodiversity Framework, and China's Ecological Conservation Strategy.

# Grow our Business in an Eco-friendly Way

We attach importance to the management of nature-related risks and opportunities and strive to reduce our reliance on land, water, and other natural resources. We carry out environmental impact assessment and develop mitigation measures before the construction of our projects.

During our operations, we have reduced the reliance on natural resources:

#### Water resources

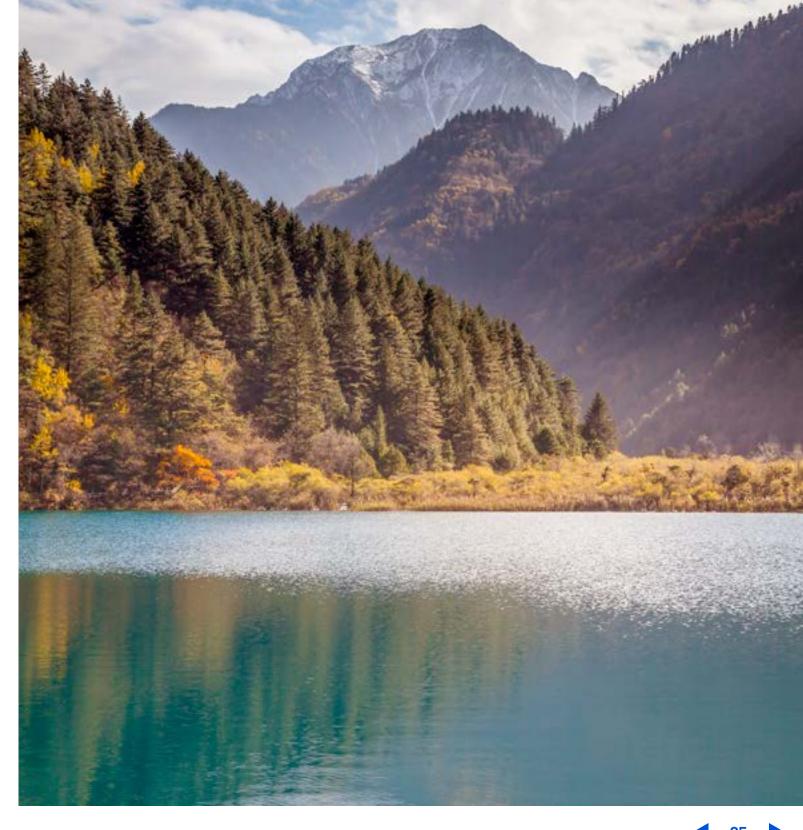
We attach great importance to using water resources efficiently. In 2022, we carried out water stress analysis to evaluate the current and future water shortage risks across our operation sites, and developed mitigation strategies accordingly. They include the implementation of water conservation measures, the establishment of water reuse facilities, the installation of backup water supplies and other contingency measures.

- The use of reclaimed water as a water source in data centres: We explored the use of reclaimed water generated from wastewater treatment plants as an alternative water source. By building water purification treatment equipment, we used reclaimed water instead of municipal water supply in the data centre cooling system to reduce the use of fresh water and mitigate water stress.
- Waterless fluorine pump air conditioner R&D: In water-scarce areas in North China, we innovated and developed waterless fluorine pump air conditioners to reduce water consumption while guaranteeing efficient data centre cooling.
- Application of sponge city technologies in office buildings:
   We applied sponge city technologies to recycle rainwater.
   For instance, we paved water-permeable ceramic bricks on the 8,000 m² square of the Tencent Binhai Towers and used the rainwater to irrigate plants.

In addition, we adjusted the cleaning frequency of Beijing Tencent Towers outdoor fountain, and recycled wastewater to irrigate landscapes, reducing water consumption by approximately 1,400 tonnes during the operating season.

#### **Resource management**

- Paper management: We actively promoted sustainable workplaces, advocated paperless workplaces, and procured paper certified by the FSC (Forest Stewardship Council). When printing is necessary, we prioritise the use of doublesided and black-and-white printing to reduce paper consumption.
- Packaging management: We encourage employees to reduce the use of packaging materials. We also replaced the materials of take-out boxes used in the staff canteen with environment-friendly materials and introduced charges for take-out boxes.



## **Sustainable Utilisation and Protection of Natural Resources**

Tencent continues to explore the application of AI, cloud computing and other technologies in Nature-based Solutions (NbS) to improve the efficiency of ecosystem protection.

In terms of applying AI technologies to rare species conservation, we developed the Intelligent Snow Leopard Recognition and Monitoring Data Management Cloud Platform to trace snow leopards and collect key data. The platform can automatically sort out and analyse data through AI species identification, data upload, model establishment and computing, and other functions, to better help scientists and professional conservationists in completing the monitoring and survey of species, increasing the productivity by more than 50% compared to traditional methods.

In 2022, the platform was improved to help strengthen ecological protection.

- The number of identifiable species increased from 23 to 31;
- The detection rate of snow leopards from images increased from 70.8% to 95.5% and the image precision increased from 59.1% to 85.2%.

Illegal wildlife trading can inflict huge damage on rare species, and the application of financial technology can effectively combat money laundering in the illicit wildlife trade. We have therefore developed suspicious transaction identification models to assist law enforcement agencies to prevent and control the crime of money laundering in illegal wildlife trading.

- Model identification: Modeling using a technical approach of big data mining and machine learning that identifies suspicious leads to illegal trade.
- Public participation: Provide users with knowledge on animal protection, establish a reporting and feedback platform, and track wildlife trade with the help of the public.

Marine ecology contains a great wealth of biodiversity resources and has a long-term carbon storage capacity. As such, we carry out the ecological restoration of seagrass beds, marshes, and mangroves jointly with Xiamen University and charitable organisations.



# **Improve Public Awareness Through Internet Tools**

To help more people understand the importance of biodiversity, we applied "Immersive Convergence" and other technologies to showcase our ecosystem and rare plants and animals. Meanwhile, we stressed the urgency of ecosystem protection and called on the public to participate in biodiversity protection.

Tencent applied the "Immersive Convergence" technology to showcase natural landscapes and flagship species in national parks and made them easily accessible to the public through social platforms.

In 2022, approximately 15 million people participated in the interactions, with accumulated exposure exceeding 800 million. The major projects include:

- We launched a virtual reality (VR) panoramic photo of the Northeast China Tiger and Leopard National Park in 1.25 billion pixels. With the ability to zoom in up to 120 times, users can explore a 360-degree view of the national park and search for flagship species including the Northeast China Tiger and Leopard in the hidden forests of the park.
- We streamed the view of Hainan Tropical Rainforest National Park in 4K using Dolby Atmos and showcased more than 30 flagship species, including Hainan partridge and Hainan Eld's deer, as well as other wildlife that are under first-class national protection.
- Tencent Docs launched the first online document public benefit theme background in China, allowing users to use the natural scenery of Wuyishan National Park as the online document background.

To raise public awareness on wildlife protection, we used digital interactive tools to help the public engage with wildlife online. For example, in May 2022, we partnered with the Chinese National Geographic Magazine to develop WeBirder, a *Weixin Mini Program* which contains a database of information on 1,500 bird species. Users can search for species using text or image recognition, and learn about their body size, conservation status, habitat, behaviour, and geographic distribution, as well as gain eco-related knowledge.





# Our Approach and Progress

High-quality talent is essential to driving our business growth and innovation. We are committed to creating a diverse, equitable, and inclusive (DEI) work environment and an open and inclusive culture to attract and retain diverse talent. We aim to build a people-centric team and care for the growth of our people, enabling our employees to stay positive and collaborate together to implement the mission of "Tech for Good" and create greater value collectively.

To foster an environment that supports the growth of the Company and its employees, we are constantly enhancing the management of our organisation, staff, and corporate culture. We respect the human rights of our employees and guarantee their equal right to employment and choice of occupation, the right to remuneration for labour, to rest and vacations and other labour rights. In addition, we implemented a series of human resources management policies, including the Employee Career Development Management Policy, the Performance Management Policy, the Employee Holiday and Working Hours Management Policy, Training Management Policy and others. We comply with the Labour Law of the People's Republic of China and other applicable local labour laws and regulations to protect the rights and interests of our employees.

In 2022, amidst challenging macroeconomic conditions and structural changes in the industry, we embraced the changes and pursued long-term sustainable development by optimising organisational structures, consolidating resources, and focusing on core strategic areas. On one hand, we shut down or rationalised several loss-making non-core businesses, optimised investments in labour and capital demanding businesses, optimised the allocation and deployment of our human resources, and controlled new hires. On the other hand, we enhanced operational efficiency and achieved value creation through a series of measures, including controlling marketing expenses, reducing operating costs, and strengthening process management to improve the return on investment.

Nevertheless, we continue to increase investment in human and financial resources for research and development (R&D) and core areas that will sustain our long-term competitiveness, as well as improve the processes and mechanisms that support talent retention.

In tackling these challenges, senior management was proactive in communicating the Company's strategic direction and progress to our employees, during all-hands meetings, internal strategy conference, strategy briefings, and senior management interviews, and in advising employees to stay focused, confident and resilient amid this difficult period. The Company has implemented measures to minimise the impact on employees through various supportive measures, including providing transition periods, internal transfer opportunities and appropriate compensation for those who were impacted.

In 2022, our key progress was as follows:

- Dedicated resources in fostering a workplace culture that reflects values of diversity, equity and inclusion through training and corporate activities.
- The employee training participation rate reached 99.4%, with an average training time of 36.3 hours per person. Tencent Academy provided over 1,000 courses for different professional needs.
- Promoted physiological and psychological wellbeing by launching wellness and mindfulness programmes for our employees.
   Additionally, we offered an online family doctor health consultation service in certain locations.



# Implement Diversity, Equity and Inclusion

Tencent progressively integrates diversity, equity and inclusion ("DEI") into the management of our Company through promoting DEI values in the workplace and fostering a diverse workforce, so that every employee feels respected, supported and encouraged. As Tencent's business goes global, we will continue to implement relevant measures.

#### Foster a DEI Culture

Ruixue+, an upgraded version of Ruixue, is Tencenters' code of ethics and etiquette, which emphasises equality, mutual respect and inclusion for everyone. To further integrate DEI concepts into Tencent's workplace culture, in 2022, we dedicated resources to organising various DEI training and communication activities, including but not limited to the Kickstarting DEI workshop and Eliminating Unconscious Bias in the Workplace seminars.

To facilitate smoother communication and collaboration across our global offices, we have developed a training curriculum on cross-cultural communication. Through a series of internally developed training tools, including the Cross-cultural Competence Model, Cross-cultural Competence Evaluation, and National Cultural Database, we support various teams in identifying country-specific cultural differences. In addition to internally developed tools, we also provided customised training courses, workshops, and seminars for employees to master their cross-cultural communication skills. Besides our training curriculum, we launched a number of internal crosscultural activities, including Culture Week, festival celebration, and the Get Connected: Global Office Touring of Interactive Entertainment Group video series.

In 2022, we conducted over 50 DEI-related training courses, promoted sharing and communication, and held workshops. We introduced a wealth of DEI-related multimedia content. which covers DEI general knowledge, as well as special topics on cross-cultural festival.



#### Culture Week

Tencent's overseas business spans across more than 30 countries worldwide, including Japan, Singapore, the United Arab Emirates, the United Kingdom, and the United States. To facilitate cross-cultural exchange among employees from different cultural backgrounds, Tencent North America, Tencent Asia Pacific and Interactive Entertainment Group Global held a number of Culture Week events under the theme Together as One. These events included activities on folklore discovery, delicacies sharing, collaborative games, and storytelling, which enhanced cross-cultural awareness and further encouraged employees to expand their understanding of different cultures and work towards a more inclusive environment.

# **Integrate DEI into Our Operations**

We strive to promote diversity in our workforce and integrate DEI into daily operations. By bringing together employees with different expertise, perspectives and viewpoints, we believe it will inspire greater business innovation.

Tencent fully respects employees of different ages, races, genders, nationalities, and physical abilities, and ensures equitable opportunities and fairness in recruitment, compensation, training, and promotion processes, while continuously improving the diversity of our workforce.

How to better support women's development in different professions and positions has been a challenge faced by technology, finance and other industries, education sector, and society in general. Tencent attaches great importance to providing equal career opportunities for women working in the sector. We actively promote the power of female role models through themed campaigns and sharing of personal career development experiences. We have launched video series featuring #Women at Tencent Driving Tech for Good and #Women Who Lead, enabling female employees to share their journeys at Tencent. We support outstanding female employee representatives to participate in external conferences, including the Women Impact Tech Conference, where they can shed light on the sector and share female-empowerment stories, with the aim to encourage more women to explore and pursue career development opportunities in the industry.

To better support employees in their roles as parents and caregivers. Tencent provides pregnant employees with paid prenatal check leave and gives them priority in boarding our company shuttle buses and getting food service in our cafeterias. Additionally, we also offer a range of other benefits, including maternity leave, paternity leave, breastfeeding leave, parental leave, gifts and stipends, health insurance for children, and parent-child relationship counselling services provided under our Employee Assistance Programme (EAP)<sup>1</sup>.

**Improve DEI Management** 

Tencent has established a special committee on DEI under its ESG Working Group comprising of senior managers from different professional fields and cultural backgrounds, including six female and two male members. In March 2023, we released Our Commitment to Diversity, Equity and Inclusion, which outlines our dedication to integrating DEI principles into our workplace culture and daily operations to achieve our DEI goals progressively. To create a safe work environment, in April 2022, we took a proactive approach by issuing the Anti-Sexual Harassment Policy and made it as one of the annual mandatory training modules for our employees. The policy establishes the reporting channels and handling procedures, guarantees the protection of victims and whistleblowers, and ensures that any workplace sexual harassment cases will be handled promptly and appropriately.

We regularly review the progress of our DEI initiatives and seek to continuously improve diversity among employees at all levels. To date, our talent pool comprises of professionals from nearly 50 countries worldwide. In 2022, we undertook an in-depth review of our progress on DEI and added related questions to our employee satisfaction and engagement survey to gauge their thoughts on our performance. During the reporting period, women accounted for 28.8% of our employees and held 24.5% of our managerial positions.

In terms of workplace and facilities, we also take into account the diverse needs of our employees. To support breastfeeding mothers, we have set up exclusive nursing rooms in all Tencent's self-built office buildings. To provide greater convenience for employees and visitors with special needs, all ramps, lifts, bathrooms, parking spaces, and other areas in our self-built office buildings are designed and built in accordance with the Code for Accessibility Design in China.

We also incorporated DEI principles into our product designs and services, with the aim of generating meaningful and farreaching impacts and contributing to the building of a better society.

#### Incorporating Diversity into Video Game Design

We do not only focus on strengthening the diversity of our teams, but are also working on creating diverse characters in the video games we create. At the Women Impact Tech Conference 2022, Bonnie Jean Mah, Narrative Director at the Montreal Studio of Tencent Games' TiMi Studio Group, shared the significance of diversity in video game characters and the path to creating them.

Gilly, a female character from Peacekeeper Elite created by Tencent Games' Lightspeed Studios, was the digital spokesperson at the opening ceremony of the UN Women event. "See Her in the Game World". In that occasion, Gilly shared her "personal experience" and conveyed to the world Peacekeeper Elite's commitment to the values of DEI and to making progress in this area.





EAP (Employee Assistance Programme), also known as Employee Mental Assistance Programme, is a programme designed to provide support for employees

# Talent Acquisition and Retention

Tencent strives to attract diverse and outstanding talent to achieve long-term success with our employees. We provide our people with competitive remuneration and benefits, attentive care and support and foster an open and inclusive environment.

# **Multiple Recruitment Channels**

Tencent is committed to exercising fairness throughout the candidate selection process. Interviewers must undergo a vigorous vetting process, multiple rounds of training and assessments before taking up their positions. After taking up the role as interviewers, they are also subject to periodic comprehensive assessments to ensure our interviews with candidates are conducted fairly and professionally. We invite interviewees to complete a survey to help us better enhance candidates' interview experience moving forward. We have established multiple recruitment channels, including university co-op programmes, internships, campus recruitment, experienced hiring, internal referrals, to attract talent and improve efficiency in matching suitable candidates to vacancies.

Tencent established provisions in essential aspects, including recruitment and employment, to explicitly forbid the use of child labour and forced labour. Upon the completion of interviews, with the candidates' consent and subject to our privacy policies, we will conduct background checks to verify the authenticity of their qualifications and ensure we do not engage in the accidental use of child labour.

## **Performance Evaluation and Incentives**

Tencent recognises the dedication and contribution of our employees. We share the fruits of our success with them through an equitable and attractive compensation and incentive system.

To improve employees' abilities and performance, we conduct performance evaluations twice a year and help employees set personal performance goals by offering performance development reviews. We have also introduced a comprehensive feedback mechanism in the performance evaluation process where peers and subordinates are invited to give feedback.

We have established a performance-based incentive mechanism, giving year-end and special bonuses to employees according to their appraisal results. We have also set up share incentive schemes for key employees with excellent performances and high potential. In addition, we set up the Tencent Honour award programme to recognise exceptional teams who have made a significant impact.

#### Awards we received in 2022

- LinkedIn: MostIn Awards 2022 World's Most Attractive Employers
- **Zhaopin:** China's Best Employer Award Top 10

Most Popular Employers Among University Students Award – Top 10

Most Socially Responsible Employers Award – Top 10



# **Care for Employees**

Tencent provides employees with an attractive comprehensive benefits package and makes employees feel cared for, helping them better achieve work-life balance and enhancing their sense of belonging.

#### **Ensure our employees stay healthy**

We provide our employees with basic health insurance, supplementary commercial insurance, mental health counselling service, annual health check plans, ad-hoc health assessments, 24-hour online family doctor health consultation service<sup>1</sup>, physiotherapy, sports and fitness venues, fitness classes, sports clubs, fully-paid sick leave, and emergency financial aid.

#### **Provide special benefits**

We provide our employees with free company shuttle bus services, complimentary breakfast and dinner, coffee shops, ergonomic office equipment, employee events, holiday gifts, and work anniversary gifts. We gift and celebrate with long-serving employees under the "Career Milestones" caring scheme (including but not limited to special health insurance, longservice leave and tailor-made commemoration gifts).

#### Care for employees in different life stages

We offer interest-free loans to assist with home purchase (Anju Plan) and rental subsidy (Yiju Plan) to eligible employees; provide marriage leave, wedding subsidies and wedding figurines for newly-wed employees; provide fully-paid prenatal check leave, maternity leave, paternity leave, breastfeeding leave, maternity gifts, parental leave and parent-child education platform for expecting mothers or employees with family plans; provide longservice gratuity, ex-gratia payment, and customised souvenirs for retiring employees.

#### Care for employees' families

We offer a variety of insurance plans for employees' spouses, children and parents, deliver holiday greetings and offer gifts on occasions, for example, Children's Day, Family Open Day, and Elder Care Day.

#### Support work-life balance

We provide flexible work hours and leave options, including Chinese New Year special leave, annual leave, marriage leave, maternity leave, prenatal check leave, public charity leave, and long service leave.



#### Alleviate the Pressure with High Cost of Living

In the Mainland of China, Tencent continues to provide permanent employees with interest-free loans to first time home buyers through the Anju Plan, and has periodically adjusted the plan to help employees alleviate the pressure of property price inflation. By the end of 2022, the plan has granted interest-free loans to nearly 14,000 employees. We also continue to provide rental subsidies for permanent employees with no more than three years of work experience, helping them to better adapt to high cost of living in cities.

Online family doctor health consultation services is a flexible benefit for employees to choose in



# **Transparent and Proactive Communication**

Tencent actively listens to employees' voices, maintains various communication channels for employees, and continuously fosters an open and transparent communication atmosphere. This supports employees in taking ownership and offering suggestions for the better development of teams and the Company.

To keep employees fully informed about the Company's strategy and plan, senior management regularly shares their thoughts and engages with employees through internal events, including Link Time, all-hands meetings and Voice of Executives, a regularly updated internal column dedicated to senior management interviews. During Link Time, all senior management team members will attend the annual live broadcast to address trending industry topics, company strategy and other questions raised by employees online.

We continue to operate several internal platforms to facilitate cross-departmental communication, allowing employees to exchange ideas in various areas including technology, life, and the management of Tencent. For example, the Lewen online community provides a platform for employees to share their thoughts and express their opinions by asking and answering questions in a respectful and considerate manner. Users who receive high recognition for their answers will be awarded "Hundred Likes", "Thousand Likes", or "Topline Contributor" recognition ribbons. In 2022, over 9,000 employees received such recognitions.

We pay attention to employees' career aspirations and respect their choices. We regularly communicate with employees on the company strategy, business development, work experience, career planning and performance management, and support their participation in labour union activities to enhance employees' sense of belonging. For employees who plan to resign, we respect their decision and actively listen to their reasons for leaving, as well as their feedback and suggestions to the Company.

We have implemented an online platform for employees to file complaints and appeals.

- Should employees have objections to the result of their performance and promotion assessments, they can submit formal appeals through the system platform or emails. We have set up an independent investigation team to investigate, resolve, and respond to submitted cases in a timely manner.
- If employees suspect a violation of the Tencent Sunshine Code of Conduct, they can report the case using their real name or anonymously. Tencent's Anti-Fraud Investigation Department will conduct an independent investigation accordingly. For more information, please refer to the "Business Ethics-Adhere to Integrity Behaviour" section of this report.

Every year, we commission an independent third-party consultant to conduct an employee satisfaction and engagement survey. Through the survey, employees can anonymously express their views and suggestions regarding their experience in Tencent, cultural/values, corporate strategy and long-term development.

The overall employee engagement level continued to rise in 2022. More than 80% of our employees expressed their satisfaction with cultural/values, which has remained as one of the top three attributes in the survey for four consecutive years. In 2021, we introduced the Ruixue+ culture, which promotes a healthy workplace culture of equity and respect. After a year of implementation, this initiative gained the highest satisfaction in the survey this year.

#### The Lewen Online Community

Lewen is the largest internal communication platform in Tencent, where employees can exchange ideas on topics, including product ideas, as well as their experience in Tencent and life more broadly. In 2022, our employees asked more than 100,000 questions on Lewen, receiving nearly 150,000 answers from peers, with total views exceeding 100 million. Business-related questions were the most discussed among Tencent employees, accounting for more than one-third of the total questions asked. We have collected many suggestions on our products through such open and extensive discussions, which provided insight for business departments on how they could continue to optimise product designs and business processes.

Lewen also offers an important channel of communication between management and employees. During 2022, mid to senior level managers used the platform to read and respond employee queries, averaged over 180 each month.



# Support Employees' Career Development

Tencent provides a variety of career development paths for employees to develop their strengths and maximise their potentials. Additionally, we provide sufficient learning resources to help them to continuously improve, and refine our training courses regularly based on the needs and feedback of our employees.

# **Provide Opportunities for Career Advancement**

To support our employees in achieving their career development goals, we offer two different career options where employees can choose either the professional path or the management path based on their preferences and strengths. By providing these two paths, we have been able to facilitate both personal and company growth, maximising the benefits for all involved.

#### Professional path

This includes diverse career path options covering five verticals – technical, product/project, design, marketing and supporting functions, and expanding to more than 20 career tracks.

#### Management path

This consists of three levels – junior-level, mid-level and senior management.

To better match talent to the right positions, the "Huoshui Programme" was launched in 2012, supporting employees to seek internal transfer opportunities freely. Not only has this assisted Tencent in identifying internal talent, but it has also attracted employees to support our fast-growing businesses. In 2022, the "Huoshui Programme" helped more than 2,400 employees transfer to new roles. To nurture young talent, we have established the Young Talent Programme to encourage departments to identify, train, and fast-track highpotential talent. We provide young talent with resources and opportunities to thrive and develop as leaders to support the Company's steady progress.





# **Emphasise Talent Development**

Since 2007, we established the Tencent Academy to help new hires, professional skills. We also provide learning platforms and resources to colleges and universities, business partners, and our investee companies, sharing our industry insights, best practices and know-how to help cultivate industry talent.

Tencent employees can learn and share their knowledge in multiple ways. Those willing to share can apply to become lecturers in Tencent Academy after passing an internal assessment. Experienced employees from various professional streams can also provide career and personal advice via our internal knowledge-sharing platform to colleagues from other teams, facilitating knowledge transfer and expertise sharing within the Company.

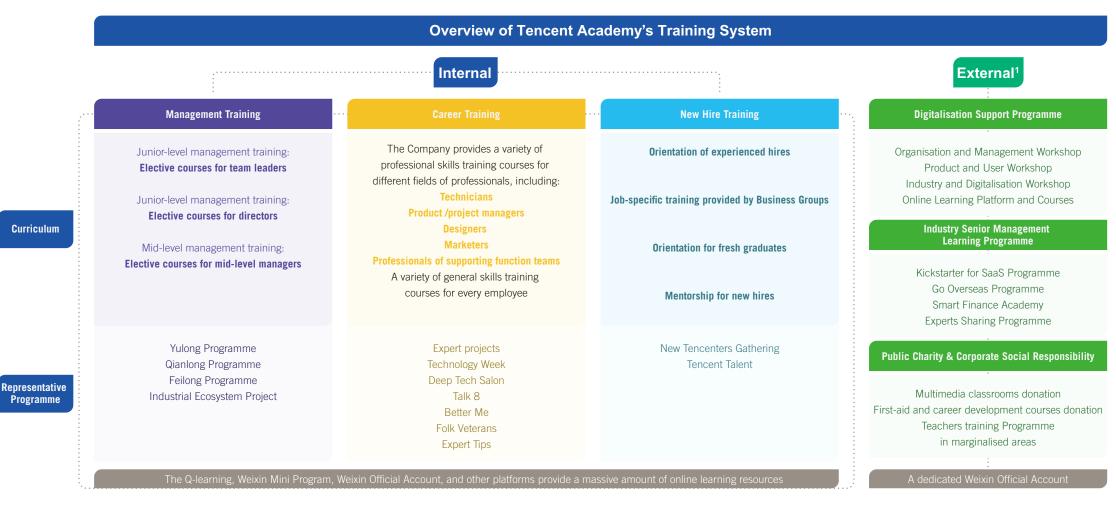
Externally, Tencent cooperates with academic institutions to enhance employees' professional knowledge and expand their global perspective.

**Tencent Academy provides** 

Average training time per person

36.3 hours

Overall employee training participation rate reached



External training resources are provided to subsidiaries, investee companies and business partners.

## **Orientation for New Hires**

To assist new hires to adapt to their workplace quickly, we offer different onboarding orientations for fresh graduates and experienced hires based on their needs.

For fresh graduates, we provide structured, campus-style training with a focus on professional literacy and practical skills.

For experienced hires, the orientation gears towards helping them understand and adapt to Tencent's corporate culture quickly.

On top of that, each Business Group provides job-specific training for new hires, focusing on the required skills and knowledge for the position based on the nature of the business.

In addition to creating targeted training programs for the two categories of new hires, Tencent Academy actively creates coaching and sharing opportunities for new and existing employees to exchange ideas.



## **Professional Skills Development**

In terms of professional skill development, Tencent Academy offers tailored learning resources for employees according to their professional stream, grade, and position. Additionally, employees are free to select courses and learning styles based on their own interests, needs, and development stages.

We also provide employees with a variety of opportunities for learning and exchanging ideas.

In addition, we organise various professional events, invite relevant experts to share their insights, innovation results or industry experiences, and encourage knowledge sharing among employees.

#### **Folk Veterans**

Employees possessing expertise in their specific field are invited to share their approach and thought process, innovative ideas, and unique perspectives..

## **Expert Projects**

Senior employees or employees with professional knowledge in a particular field are invited to share their experiences.

#### **Better Me**

Focusing on talent development, we provide employees with courses on topics, including but not limited to communication, self-awareness and career planning to improve their communication, learning and critical thinking skills, while helping them develop a positive mindset.

## The 5<sup>th</sup> Tencent Technology Week

We invited 88 internal and external technical experts to share insights on 83 cutting-edge technology topics. The event held three hackathons on Tencent's programming design, cybersecurity, and technical operation, and set up 30 showcase booths with a total of 190,000 individual visits.

### The 6<sup>th</sup> Tencent Design Week

Seven industry experts working in the design and creative fields were invited to share their know-how under the theme of "Co-create for Alternation, Design for Good". We used recycled installations from prior years to build 18 booths to showcase the designers' outstanding works.

## The 6<sup>th</sup> Tencent Game Developers Conference

Seventeen sharing sessions were organised, where renowned local and international experts from the video gaming industry and scholars shared their experiences and insights on the industry and academic trends in game development.







## **Leadership Development**

Based on our "All-in Leadership" model<sup>1</sup>, we have been actively developing future leaders in a multi-faceted and systematic way, ensuring that their visions are aligned with our corporate strategy and values.

We provide tailored training to current and future junior-level, mid-level and senior management through various formats, including online/offline courses, themed seminars, and senior management sharing sessions. While training contents are mainly focused on capacity building for individuals, teams, and business management, junior-level management can choose to take leadership courses according to their positions. Additionally, based on their personal development plans, junior and mid-level management can choose to complete courses on topics, including strategic thinking, innovative thinking, business acumen, and negotiation, while senior management can further develop their leadership skills through forums, coaching, and academic programmes.



#### Interpreting the Company's Strategy

These sessions are open to a core group of managers, specialists, and functional line staff. We seek to ensure this core group, who execute the Company's strategies and vision, have a deep understanding and alignment with corporate objectives. In 2022, we held a total of 99 strategy briefing sessions.

The "ALL in Leadership" model is built upon Tencent's foundation cultural values (integrity, progress, collaboration, creativeness), plus three core competencies: Insight, Inspire and Win.

## **Support the Cultivation of Industry Talent**

To support the development and nurturing of talent in our industry, we have made available on a complimentary basis, a certain number of our training courses. These courses have been developed based on Tencent's corporate practices, industry insights, and internal training experiences over the past two decades, covering organisational management, products and users, industries, and digital transformation.

In conjunction with universities, we launch several youth empowerment programmes and top talent development programmes, for example, the Tencent Rhino-Bird Talent Training Programme. We conduct in-depth exchanges with universities in curriculum co-development, course design or revamp, train the trainer workshops, practical experience and start-up incubation.

In addition, we have been working towards the better development of the industry and ecosystem. We facilitate experience sharing and create synergy by providing diversified, high-quality training and networking opportunities to senior management team members and core personnel of our business partners and investee companies.

T-learning is an external learning platform launched by Tencent Academy for strategic partners and universities. In 2022, Tencent Campus Recruit Zone was developed as part of the T-learning platform. It offers nearly 2,000 courses in the form of audio or video classes, live streaming, and boot camps, covering product, technology, design, industry, marketing, and general management. It provides students with resources that will strengthen their abilities in research and development, product design, advanced research, and logical thinking, thus supporting them to gain a competitive advantage and have a more promising career.



# Promote Employees' Health and Vitality

Vitality in the workplace helps to foster productivity and creativity. In Tencent, we are committed to maintaining a healthy, safe and caring work environment.

# **Occupational Health and Safety**

Tencent has established an Occupational Health and Safety Committee to manage risks in four areas: occupational safety, environmental management, health counselling and assistance, and emergency response. We conduct comprehensive assessments to prevent occupational accidents. For example, we have implemented a security system and a fire protection system to ensure the personal safety of our employees and protect against fire hazards, respectively. We set standards for food safety inspections in our cafeterias and engage third-party testing organisations to carry out random inspections. In addition, we conduct an annual safety risk assessment at our facilities to identify potential defects in hardware or operational management systems and address other hidden risks. All of our workplacerelated policies and procedures comply with the Work Safety Law of the People's Republic of China and other relevant laws and regulations in the regions where we operate.



## **Care about Employees' Health**

We care about the wellbeing of our employees and provide them with comprehensive health benefits, including annual health check plans, commercial insurance plans, and health counselling. Our employees can use our onsite gyms at their convenience or join fitness classes led by professional coaches. In 2022, we launched a 24-hour online family doctor health consultation service in certain locations as a flexible benefit for employees to choose, providing a convenient service for them and their families.

To promote work-life balance, we have more than 70 sports clubs and social groups, including dance, music, basketball, board games, drama and others. We provide subsidies for employees to organise team-building activities, and other social events, for example, concerts and film viewing sessions.

We care about the mental health of our employees and have upgraded our annual health check plans to include a free, voluntary psychological assessment conducted in strict confidentiality. Additionally, our employees and their families have access to free professional resources via the "Stress Relief Cabin" service, which includes psychological counselling, mindfulness courses, and psychological assessment.

We encourage employees to practise mindfulness to increase their self-awareness and maintain a positive mindset. In 2022, we formed a mindfulness club and organised several types of group learning activities, including ten-minute daily clips to study mindfulness, online and offline day camps to practise mindfulness under professional guidance, and monthly reading clubs to share experiences.

## **Enhance Emergency Preparedness and Response**

We seek to improve our employees' awareness and preparedness for emergencies. In 2022, we included firstaid training courses as required courses for new hires and provided refresher training for employees who have already taken the courses. Since the establishment of our first-aid volunteer team in 2012, we have offered training courses to more than 15,000 employees, while training and certifying more than 40 in-house instructors.

Through our "Tech for Good, Protect the Heart" initiative, Tencent pioneered the design and construction of an emergency response system covering various offices, buildings, and data centres. Through this system, offline and online data are connected to central command in real time to enable efficient matching among on-site patients, first responders, automatic external defibrillators (AEDs), and public aid agencies.

In 2022, we conducted drills in multiple locations, where our first-aid responders and outsourced staff from property management, cafeterias and other servicing teams participated. During the drill, all first-aid responders arrived within the international standard of four minutes. Tencent has expanded the application of the emergency response system to more locations in campuses, communities and commercial areas. For more information, please refer to the "Sustainable" Social Value-Assist with Public Emergencies" section of this report.

- 1) Provide professional first-aid training to employees and property management personnel and conduct assessments accordingly to build our first-aid team.
- 2) Equip the workplace with AEDs and call-out QR codes to ensure swift rescue to the patient based on accurate coordinates indicated in real-time e-maps.
- 3) Provide training to outsourced personnel at property management command centres in multiple locations, and support their implementation in daily operations, emergency responses and contingency drills.
- 4) Create a dashboard based on relevant data to constantly review our response readiness and activate prompt action.



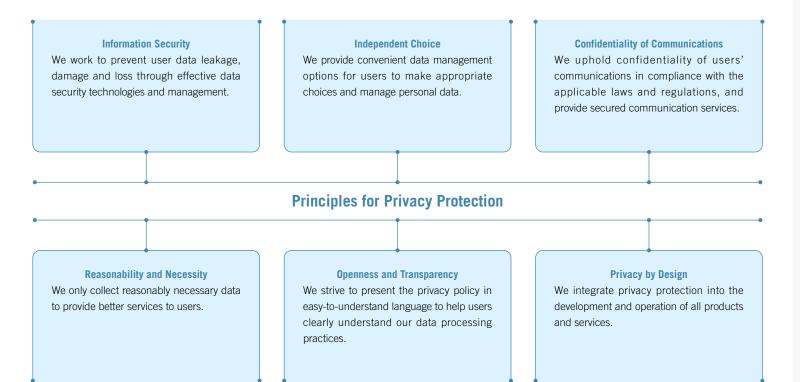


# Protect User Data and Privacy

Tencent believes that the protection of user data and privacy precedes the superior and secure product experience we provide to our users. We ensure that the user privacy and data remain protected by a series of measures, including continuously improving privacy protection, establishing effective internal data governance, and implementing due procedures throughout the information lifecycle.

## **Management Principles**

Tencent makes every effort to protect the personal information rights of its users in accordance with all applicable laws and regulations. Prior to the use of Tencent's products or services, we inform users of the purpose, manner and scope of the collection, use, and sharing of their personal information. Tencent applies stringent confidentiality to all collected personal information, preventing it from being leaked, tampered, destroyed, sold, or otherwise provided to third parties thereby preserving users' control over their data. Tencent follows the widely organised "Privacy by Design" concept, which dictates that our products and services are designed with privacy protection from the outset and that we continuously think about privacy protection throughout the product lifecycle. Our approach to "Privacy by Design" is encapsulated in three words: "Person-Button-Data".



- "Person" refers to how the needs of our users are always central to everything we do. Core to this is the notion of transparency and our commitment to letting users know how their data is used. Privacy remains our highest priority in all that we do. We strive to ensure that users can manage their personal data in accordance with applicable laws and regulations for our products and services. We only collect the minimum amount of data required to power our products and services. We do not provide users' data to third parties without a clear legal basis, and users are informed as to what data is shared, how it is shared, and with whom it is shared.
- "Button" reminds us to try our best to meet the user's need for easy management of personal data, which can be done simply through the press of a button or filling out a form. Our products and services usually contain convenient privacy features and feedback channels for users to manage their personal data and privacy.
- "Data" refers to user data we safeguard with our cutting-edge cybersecurity technology and management protocols. Our round-theclock Security Department gathers some of the world's leading data security experts who collaborate with external security researchers and partners worldwide through our online Tencent Security Response Centre Platform to create a more robust and secure digital environment. These technologies and measures ensure that we have worldclass security risk monitoring, defense, and response mechanisms to safeguard user data, and enable prompt detection and remedy of security incidents.

# **Management Approach**

## **Management Oversight**

Tencent attaches great importance to the protection of user data and privacy. To ensure the compliance of the Company's products and businesses in the whole life cycle of user personal information data, including its collection, processing, use and sharing, we have established a Personal Information Protection and Data Compliance Management Taskforce (the "Taskforce"). The highest decision-making body of the Taskforce is the Management Committee which is comprised of the CEO, President, and the heads of all seven business groups. Their responsibilities entail oversight of the effectiveness of the Company's personal information protection and data compliance, providing guidance and evaluation on the work of the Taskforce. Under the guidance of the Management Committee, businesses and functional departments collaborate and communicate with a variety of stakeholders to develop technical solutions and fulfil personal information protection requirements for each product, thereby establishing a technology and management system that protects personal information and privacy in a secure, accountable, compliant, and transparent manner.



## **Management Policy**

We strictly abide by all relevant laws and regulations in jurisdictions where we operate, including the Cybersecurity Law, the Personal Information Protection Law (PIPL), Data Security Law of the People's Republic of China, as well as the EU's General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA).

In 2022, Tencent updated and released multiple Company-level policies and standards on data protection and privacy. These policies would be implemented for all applicable businesses and products, providing guidance for relevant works on various topics, including data governance, data classification and protection, data security operation and maintenance, user personal information compliance, product data, and privacy compliance.

## **Workflow**

Tencent addresses user rights issues through multiple channels, including the Tencent Privacy Protection Platform, questionnaires on personal information protection and privacyrelated feedback, e-mail, customer service, and postal mail have been established to address user rights issues, such as facilitating users' requests to access, copy, modify, supplement or delete their personal information. We have established several integrated processes and mechanisms that respond to users' requests related to their personal information rights to ensure that their requests are responded and processed in a timely manner for all Tencent products. In addition, we continue to enhance the front-end functionality that allows users to conveniently interact with our products and exercise their personal information rights directly within our products, including AI chatbot that responds to user requests for accessing and copying personal information.

We assign data access permissions to employees based on their job natures, and provide them quick and easy ways to access our data security policies via company internal communication tools, allowing them to quickly confirm whether their actions comply with company policies. They can report potential breaches of data security through our internal communication tools or whistleblowing system; once verified, the Company will handle the cases in strict compliance with applicable regulations and internal policies.

Algorithmic recommendations of commercial advertisements and content sent to our users are based on big data, where we strictly follow internal protocols and applicable laws to desensitise identifiable personal information. Tencent strictly follows compliance requirements to ensure the transparency and the fairness and impartiality of automatic decision-making in information systems, therefore protecting user rights to refuse to receive them or providing users with options not

targeting on their personal characteristics. All Tencent products allow users to easily deregister their accounts; upon the deregistration of user accounts, Tencent handles data related to deregistered accounts in strict compliance with applicable laws and regulations. On our social platforms, we will not retain the chat data of our users. The chat data in Weixin is stored locally on the users' own devices; and users can choose to back up, delete, or transfer their chat data to other devices.

Tencent complies with applicable laws and regulations when cooperating with third parties, and handles user data in a prudent manner in accordance with the principles of necessity and data minimisation, restricting third parties' involvement in processing user data. When responding to requests from regulatory agencies and law enforcement authorities to access user data, Tencent will ensure compliance with all applicable laws and regulations of the jurisdictions in which the products or services are offered.

Our policies and standards include but are not limited to:

Tencent Data Governance and Security Management Requirements: Outlines in detail the general requirements of Tencent's data security management, including fundamental security principles pertaining to data security roles, data security requirements, and data classification and grading. In addition, it specifies the general requirements for data security management throughout the entire data lifecycle, including data collection, transmission, storage, use, sharing, and destruction. Also provided are practical examples of Tencent's internal data security management.

Code of Conduct for the Compliance Management of Personal Information of Tencent Users: Ensures standardisation for the process of handling personal information; provides guidance to employees on how to increase their awareness of personal information protection and ensures the compliance of business operations.

**Tencent Management Code on Data Classification, Grading and Protection:** Specifies general principles, manners and specific requirements for proper data classification and grading protection and management of company data; prevents risks associated with improper data management.

**Tencent Management Guideline for Security Operation and Maintenance:**Strengthens Tencent's security operation and maintenance management, enhances the business security, and protects Tencent's operations and data security, prevents the occurrence of serious security incidents, and bolsters security protection and risk prevention capabilities, therefore ensures the steady and healthy growth of Tencent's businesses.

**Security Specifications for Data Operation and Management:** Enhances the security level of Tencent's data operation and maintenance, regulates self-developed online businesses' data management, operation and maintenance to reduce intranet security risks.

**Policies for Implementing Testing and Review of App Data Privacy Compliance:** Governs and regulates mobile application related data and privacy security compliance.



## **Risk Prevention**

Tencent has built a Company-level data security capability platform to address risk points across the data lifecycle, from collection, transmission, storage, processing, migration to destruction. The platform prevents major information leaks and damages caused by potential risk factors, including external attacks and internal theft.

Tencent undertakes Privacy Impact Assessments (PIAs) for our products and services regularly. These PIAs evaluate the data privacy-related risks of our products and services in the relevant jurisdictions where we operate. Our dedicated privacy legal team is responsible for identifying, and managing data privacy risks, minimising potential impacts to individual rights, and addressing other adverse impacts of privacy issues.

## **Training**

As part of its efforts to data and privacy compliance, Tencent has made it a priority to increase employee awareness and literacy in the protection of personal information and privacy. Tencent conducts "Personal Information Compliance Mandatory Training", "New Hire Orientation Mandatory Training" and "General Staff Compliance Course" to communicate on privacy policies, procedures, and practises to all employees (including permanent employees, consultants and interns) in a systematic manner. We provide special trainings and assessments regarding the protection of personal information to employees who handle such information, and we conduct activities, including trivia contests to increase the general staff's awareness of personal information and privacy protection. In addition to general personal information protection training, Tencent has also provided numerous product compliance trainings within the Company on domestic privacy laws, as well as international privacy laws. All Tencent employees have received personal information protection training.

## Collaboration

In addition to continuous self-improvement, Tencent actively contributes to the development of an ecosystem for the protection of personal information in the sector. In accordance with relevant laws and regulations, national standards and industrial standards, Tencent has launched an application compliance platform to provide privacy compliance capabilities for small and medium-sized enterprise, helping businesses detect any data privacy compliance issues within their Weixin Mini Programs and mobile application. In accordance with our obligation as an Android-based app store, Yingyongbao also conducts pre-launch compliance audits for mobile apps, providing users with a safer, healthier, and easy-to-use environment.

In 2022, Tencent signed the Shenzhen App Personal Information Protection Self-Regulation Commitment and launched the "Sunshine Developer 2022-SDK (Third-party Software Development Kit) Compliance Project" to further enhance protection of personal information.



#### **Data security management**

**Data compliance:** Create data security solutions to meet legal compliance requirements, including risk control for outbound data, data asset identification and control, micro-isolation, database and big data risk scanning, to achieve visual operation of risk data.

**Data leak prevention:** Focus on eliminating potential risks of large-scale sensitive data leakage caused by internal and external factors, including external attacks, internal thefts, and big data platform leakage, by enhancing the organisation's security management capabilities, including group-level auditing on high-risk operations, outbound data identification and interception.

**Prevent data from being deleted by mistake:** Protect the Company, and its businesses and users' data integrity by striving to eliminate the risk of large-scale data loss incidents via sophisticated permission control, and identification and real-time interception of unauthorised erasure operations.

**Information protection:** Enhance comprehensive awareness and control ability for the Company's data, from storage to external transmission, and work to eliminate the risks of data loss and leakage resulting from improper storage or use and external theft.

**Anti-ransomware:** Build broad-spectrum immunity to ransomware and rapid recovery capability from ransomware infection; defend against various external ransomware virus and new variant strains, eliminating the risk of important files and data loss, or high ransom costs due to ransomware infection for businesses as much as possible.

Tencent's data protection and privacy protection efforts and capabilities are widely recognised by domestic and international standard setters. As of 31 December 2022,

WeChat/Weixin and QQ have secured the national Cybersecurity and Data Protection Level III/IV certification. TrustArc Certificate

Tencent Cloud has secured accreditation, including

- ISO/IEC 27001 (Information Security, Cybersecurity and Privacy Protection)
- ISO/IEC 27701 (Privacy Information Management System)
- ISO/IEC 27018 (Information technology Security techniques Code of practice for protection of personally identifiable information (PII) in public clouds acting as PII processors)
- ISO/IEC 29151 (Information technology Security techniques Code of practice for personally identifiable information protection)
- Level Three Certificate of Multi-Tier Cloud Security Standard
- CSA STAR, and other certifications

Proxima Beta received certifications, including

- ISO/IEC 27001
- ISO/IEC 27701

Other core international businesses also

- ISO/IEC 27001
- ISO/IEC 27701 certified

At the Personal Information Protection Forum of the 2022 China Internet Civilization Conference, "Tencent's Data Privacy Compliance Governance Practice" was awarded the Innovative Practice Case of Personal Information Protection.

# Safeguard Cyber and Data Security

Tencent continues to enhance its security capabilities and has built an adaptive closed-loop system to ensure security of network infrastructure and data assets, including a basic security system, a security operation centre, a business security service system. Security modules of the system include those that cover terminal security, network security, business security, data security, security management, and security services. The system is capable of providing security solutions for multiple industries, including finance, transportation, healthcare, and education.

Tencent Security Platform Department, led by Technology Engineering Group, is responsible for ensuring secure network and smooth operation for the business and customers of every business group. Established under the Cloud and Smart Industries Group (CSIG), the Tencent Security Joint Laboratory is focused on researching and developing applications involving frontier technologies, including 5G, Internet of Things (IoT), AI security, and cloud security. Leveraging on our extensive experience and globally leading expertise in security operation, as well as our powerful proprietary antivirus solutions for hardware devices, Tencent has built an efficient security platform to empower cloud-based applications with our security capabilities, promoting the co-construction of a sound security ecosystem in line with the "open, united, and shared" spirit. For example, the Department has established Tencent Security Response Centre (TSRC), the first security response centre in China. TSRC internally connects the business teams of Tencent's various business groups and responds to security risks in no time. Externally it works with 20,000 security researchers from all over the world, in order to secure Tencent's entire business lines and over one billion users.

# **Defending Against Cyber Attacks**

Tencent continuously improves its defence capabilities against malicious attacks, combatting malicious advertising, and conducts research on ransomware protection whereby constantly improving the Company's cybersecurity capability.

Defending against malicious attacks: In 2022, we defended against approximately 5.5 billion malicious traffic probes and attacks against Tencent's own businesses and nearly 3.4 billion malicious attacks against Tencent Cloud users. We ensured 24/7 safe and stable business operations and prevented malicious attacks by hackers who exploit web vulnerabilities, which can lead to large-scale data leakage. We defended against 600,000 DDoS (Distributed Denial of Service) attacks with the peak attack traffic reaching 1.4 terabits per second, among which we helped Tencent Cloud customers defend against attacks for 500,000 times, avoiding the disconnection of games, e-commerce and other businesses caused by large-scale DDoS attacks and ensuring stable operation.

Combating malicious advertising: Malicious advertising is a common illegal and criminal web-based activity, threatening users' personal information and property security. Through improved ability to ensure advertising security, Tencent reviews advertising landing pages to prevent information tampering and regulatory violations by applications to curb advertising risks and detect fraudulent activities, including malicious brushing scams. Tencent detected over 130,000 advertising risks in 2022 with a risk recall rate of 99.9%, and prevented 29 billion potential attacks.

Conducting research on ransomware protection: Tencent published the Ransomware Protection Development Report (2022) as a key author, alongside its partners, drawing on its extensive experience in combating malicious behaviours. We summarised and analysed the key characteristics, attack status, current development status, and future trends of ransomware, as well as the development of protection systems, to help the industry comprehend and prevent ransomware attacks effectively.

In addition, Tencent Security Labs have conducted various security research projects for global open-source communities and large ICT companies, thus assisting them in enhancing their security systems in multiple dimensions. The security research-related projects are undertaken by our Security Lab researchers and white-hat² researchers, in strict adherence to the responsible disclosure practice, which is widely accepted by the industry. In 2022, Tencent's security product team innovated and upgraded eight independently developed products, including cloud-native security, data security, content security, edge computing, development security, financial risk control, code chain traceability. Joining hands with ecosystem business partners, Tencent is committed to building a future-oriented digital symbiosis security system by creating efficient and easy-to-use security products.

Tencent has taken the lead in establishing the world's first zero-trust security standard and has joined forces with various organisations and enterprises to establish the Zero-Trust Industry Standards Working Group. By the end of 2022, Tencent held more than 2,800 granted patents in China in security-related fields. In 2022, Tencent Security was named as a Major Player by the IDC MarketScape Zero-Trust Network Access Solutions in China.<sup>1</sup>



<sup>1</sup> IDC MarketScape: Zero-Trust Network Access Solutions in China, 2022 Vendor Assessment, published by International Data Corporation (IDC), a leading international research firm.

Technical experts who use their hacking skills to intentionally cause damage to individuals or organisations are hailed as the "black hats" by the security industry. Technical experts who apply their skills in the design systems to protect the security of individuals or organisations are the "white hats".

## **Cloud Security**

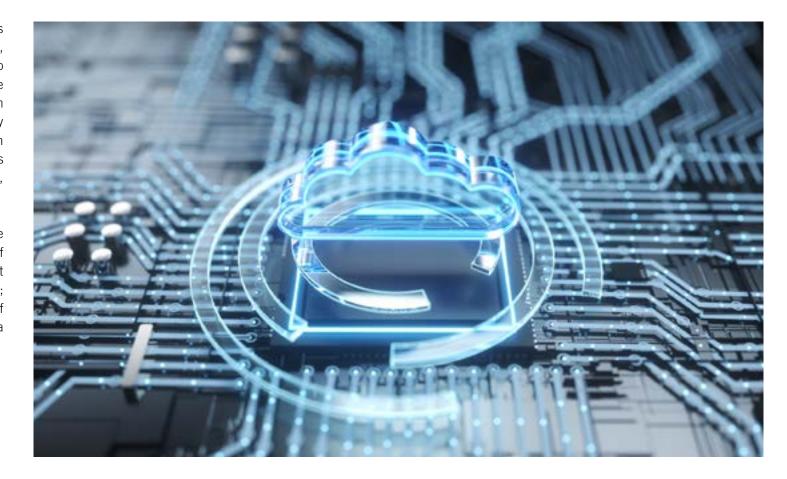
Under the cloud computing architecture, the cloud platform carries more and more mission-critical information and critical business for users. Tencent's Security Operation Centre is constantly improving its cloud security system which includes three lines of security defence: Cloud Firewall, Web Application Firewall and Cloud Host Security.

**Cloud Firewall:** A cloud-native SaaS (software-as-a-service) firewall. In 2022, we upgraded its scalability performance and expanded the protection boundary to achieve consistency between the firewall and network traffic boundary, added zero-trust access and protection capabilities to reduce risk exposure, and upgraded honeypot services and threat intelligence capabilities to enable one-click disposal and rapid traceability, employing an active defence strategy and protecting the first line of defence.

Web Application Firewall: Closely based on business scenarios, Tencent Cloud WAF (Web Application Level Intrusion Prevention Framework) upgrades BOT (automated programs) and API (Application Program Interface) security, which surpasses traditional WAF protection capabilities to protect users from security issues, including penetration attacks, zeroday vulnerabilities, malicious BOTs, malicious API calls, when accessing browsers, Weixin Mini Programs, mobile apps, H5 services and service call.

Cloud Host Security: Tencent Cloud host security has enhanced over 200 intrusion detection security capabilities, while also adding memory Trojan detection functions to combat evolving intrusion technologies and achieve accurate detection, response in seconds, and automatic alarm capabilities; regarding container security, we have significantly improved image security, configuration security and operation security capabilities to provide protection for container assets throughout the entire lifecycle, which includes construction, deployment, and operation.

We have established a comprehensive security system. Please refer to the "Responsible Products - Data Security" section of Tencent's 2021 Environmental, Social and Governance Report for more information with regards to Tencent's security system; and refer to the "Protect User Data and Privacy" section of this chapter for further information on our approach to data security management.



# Care and Support the Development of the Underaged

The Internet, as a medium to learn, an entertainment and a way of modern life, is something the underaged will inevitably embrace. In the real world, they need the guidance of their parents and the protection of the society as they grow up. Likewise, in the digital world.

In this regard, Tencent has always been highly conscious of its corporate responsibility, actively promoting the construction of protection systems in games for underaged players in the Mainland of China, including real-name verification, age-gating and parental management tools. In addition, we set limits on playtime and in-game spending for different age groups for underaged players, enhancing the overall protection system for the underaged.

- In 2017, we launched Tencent's Parental Guardian Platform to assist guardians in setting limits on playtime and in-game spending for underaged players.
- In 2017, we launched our Healthy Gameplay System and introduced the most stringent anti-addiction measures in the industry at that time, ensuring that underaged players' playtime and in-game spending are restricted.
- In 2021, we established a cross-departmental virtual organisation, Joint Working Group for the Protection of the Underaged, to support our game products and businesses in implementing the protection of underaged players in various aspects, including overall planning, strategy development, product operation and collaborative support.

• In 2023, we explored and implemented the "positive guidance" concept, which is an upgrade from our previous approach of "restrictive technical measures", aiming to help teenagers develop comprehensively and grow up healthily. For example, we have promoted the "Smart and Healthy" programme, which aims to build well-equipped classrooms and sports fields for schools in urban and rural areas, and bring various science, education, and sports activities to children in the new stage.

With the updated Law of the People's Republic of China on the Protection of Minors that came into effect in June 2021. Tencent further fulfils the responsibilities and obligations as an Internet service provider, including:

- Players under the age of 12 are prohibited from spending in any Tencent games:
- Implementation of "limited play and limited purchase" for underaged user accounts: Underaged players are allowed to log in between 20:00 and 21:00 on Fridays, weekends and statutory holidays, and access to games is prohibited on other days;
- Use of both the screening system and anti-transfer measures to prevent underaged players from using or even buying accounts that are verified as adult players.

We will continue to explore the integration of platform features and technology applications to incorporate protection measures for the underaged into each product, and work with various stakeholders to build a comprehensive protection system to support the healthy development of the underaged.



## **Protection and Guidance**

Tencent has always strived to provide effective protection and guidance for the underaged in its various products and services, helping the underaged enjoy digital products more rationally through joint parental supervision and setting up the "underaged mode" in the Mainland of China.

For game products, to prevent underaged players from irrational spending when they bypass parental supervision, Tencent has established a service hotline to listen to feedback from parents and handle refund requests due to irrational spending by the underaged.

Social and video products have become an important channel for acquiring new knowledge, enhancing communication, and conveying emotions. However, the overwhelming amount of information also poses challenges for the underaged. Integrating their usage habits on our entertainment and social products, we have launched the "underaged mode" on a number of products, including but not limited to Tencent Video, Weishi, and Weixin Video Account. We have also developed alternative versions of these products suitable for the underaged and continuously explored better solutions for safe Internet access for them so that guardians can have a better understanding of underage Internet behavior and provide timely guidance. When the "underaged mode" is activated, the underaged will have a restriction on screen time and be reminded to take breaks. In 2022, Weixin Video Account upgraded several protection measures for the underaged:

- Continued to optimise parental control on access to Weixin functions, including Weixin Video Accounts, Official Accounts, and Mini Programs.
- Provided suitable content pools customised for the underaged in the Weixin Video Account. When the "underaged mode" is on, the Weixin Video Account presents content that is carefully selected, including natural science, humanities and history, popular science, news and current affairs.
- Disabled the livestream portal when the "underaged mode" is on to prevent the underaged from initiating live broadcast or using the tipping functions.
- Strengthened the pop-up prompt function of the "underaged mode" in Weixin Video Account and enriched the suitable content pools customised for the underaged.
- Optimised the "turn on/off" function of the "underaged mode" and enhanced verification features.
- Enhanced time limit and curfew function in Weixin Video Account for the underaged.

To protect the underaged in the digital world, the protection of their personal information and privacy is essential. We have built a personal information protection system for the underaged and strengthened protection measures; and configured personal information protection guidelines for our products. We have issued the *Children's Privacy Protection Statement* on Tencent's privacy protection platform and set up a special channel (dataprivacy-kids@tencent.com) to receive and respond to requests regarding children's personal information.



From 2021, we helped significantly reduce game time by underaged players in the local market and achieve great efforts, worked with regulators and the industry to make underaged player protection effective by implementing an industry-leading underaged protection programme. According to the 2022 China Game Industry Progress Report on the Protection of the Underaged, the problem of game addiction among Chinese underaged players has been further addressed.

The duration and consumption of playing games by underaged players have significantly reduced:

- Over 70% of underaged players play video games for less than 3 hours per week.
- In recent years, both game time and spending of underaged players have decreased significantly.
- Nearly 30% of game top-ups for underaged players have been reduced.
- Over 90% of underaged players are covered by anti-addiction mechanisms.

Parent are satisfied with the implementation effect of the new regulations:

- Over 85% of parents allow their children to play games moderately while supervised.
- 70% of parents understand the new anti-addiction game rules and most of them are satisfied with the implementation.
- More than 60% of parents consider that their children's game time has dropped significantly, and more than 50% believe their children allocate the time spent initially on games to more meaningful things.

In February 2023, a third-party survey¹ reported that the percentage of underaged players using their parents' game account to play games has declined, but close to 80% of parents surveyed still reported allowing their children to play games on the parents' accounts (up from 68% in 2021). In order to further consolidate the effectiveness of managing underaged players' game playing, it is crucial for companies, parents and regulators to work together to guarantee the healthy physical and mental development for the underaged, while enjoying game entertainment.

Citi Proprietary Survey: Revisiting China Online Gamers Behavior. (13 February 2023). Citi Research.



## **Fight Harmful Content**

Internet content is complex, and with the emergence of different media types, new forms of content are constantly changing. Harmful and false information will have farreaching harm to the growth of the underaged. Therefore, we continuously enhance the mechanisms and measures to safeguard the underaged and keep harmful content, including hatred, discrimination, violence, pornography, vulgarity, fraud, gambling, away from the underaged. Through constantly improving our natural language processing capabilities and optimising our risk control identification means, once we detect the publication or distribution of content that is physically or psychologically harmful to the underaged, we take immediate action to stop information transfer, including deleting, blocking, and disconnecting links to such content.

#### In 2022, we took tough action to weed out harmful content:

- Weixin: Weixin Video Account dealt with over 80,000 accounts that are involved in fraud, black and grey market, vulgar, malicious marketing, and removed 170,000 inappropriate information. Based on user reports and proactive inspection, we identified and suspended 46,000 live streaming hosted by the underaged.
- **QQ**: We have cracked down on disseminating pornographic content of the underaged and improper information for youth, disposing of more than 100,000 related groups and accounts, and focusing on fraud, gambling, pornography, Internet ghostwriter and other illegal content.

In addition, we established the Tencent Youth Care Workstation, cooperating with relevant official departments to create a clean cyberspace and improve youth network literacy, fostering a content ecosystem that is safe and healthy for the development of the underaged. Underaged users or their guardians can report any harassment incidents, including suspicious activities related to black and grey market, fraud, privacy intrusion and inappropriate content, through the Tencent Growth Guardian platform and customer service channels at any time.





## **Support Healthy Growth**

We have upgraded the level of protection for the underaged, focused on youth healthy development, inspired youth innovation and embarked on youth education.

Tencent provides more support, ranging from bringing the underaged to experience the fascination of cutting-edge technologies to guiding them to strengthen their physical abilities and health through exercise. We have launched the "Smart and Healthy" programme, which aims to provide 100 "Future Classrooms" and 100 "Future Sports Fields" for children in urban and rural areas. In 2022, the project has constructed 36 classrooms in 14 provinces, municipalities, and autonomous regions across China, providing more than 4,830 tech-oriented classes and covering approximately 170,000 middle school students. The project has constructed 30 sports fields in 10 provinces, municipalities and autonomous regions. Through the Weixin Mini Program called the Future Sports Fields, technological elements were integrated into traditional physical exercises to fully activate the children's enthusiasm for sports.

We have a "Protection Camp for the Underaged", and have assembled a strong line-up of customers care officers with parenting and psychology qualifications. The camp offers families in need diversified solutions and sharing, and over one million parents had accessed our online resources to learn education methods, and used parenting tools to interact with their kids.

Tencent is also collaborating with stakeholders to launch a variety of technology courses to promote technology education and expand children's opportunities in the digital era. For example,

- Held the "Science to the Future" conference Tencent Youth Science Festival invited scientists to educate young people about the most recent advancements in aerospace engineering and astronomical observation: from Solar and Lunar Exploration Programme, to celestial phenomena, covering "black holes" and "dark matter", and other cutting-edge scientific advancement, including Zhurong Mars Rover, Chinese Ha Solar Explorer, and Hard X-ray Modulation Telescope.
- Tencent Youth Artificial Intelligence Dreamcatcher Camp, which was in its fourth year, reached out to more than 80,000 students from 11,879 schools in nearly 300 prefecture-level cities nationwide. Our coding programming course is among one of the most popular subjects to teachers and students around China.
- The LIGHT Technology Public Charity Platform was created to encourage people from all walks of life to develop technology solutions pertaining to pressing social issues, including internet safety for the underaged, literacy education, and psychological health. More than 800 teams participated and produced some of the most remarkable Weixin Mini Programs combining creativity, technology and philanthropy, including idophin, which was selected as "100+ Biodiversity Positive Practices and Actions", Health Bear for jaundice testing, and Language Ocean Bubbles to assist rural children learning Putonghua.

We believe that online games is not just a form of entertainment but can also create social and environmental values, as well as inspiring the young generation to nurture their interests and capabilities in technologies. For more information, please refer to the chapter "Beneficial Technologies – Promote an Enriched Digital Life".

# Develop a Healthy Content Ecosystem

To maintain a robust content ecosystem, we emphasise and execute decidedly the protection of intellectual property rights, which cover original content and user rights. We also conduct rigorous review of products, services and associated advertising strategies to ensure compliance with applicable laws and regulations. In our social, media and advertising platforms, we do not tolerate hateful, vulgar, violent, false, fraudulent and other harmful content and will take action to prevent the spread of such content, thereby fostering a balanced and healthy online environment for our users.

## **Protecting Intellectual Property**

We strive to provide content creators with a space where original ideas are protected, and have updated our WeMedia e-authorisation-monitoring-rights protection platform to better monitor piracy and offer "one-click support" service to protect the rights of original content creators. Tencent further promoted the "Copyright Partner" programme and implemented an infringement compensation policy to return 100% the proceeds involved to the copyright owner. In addition, Tencent took severe actions against violations, including plagiarism, text rewriting, impersonation, and incentivising fake likes, to effectively protect the work and legitimate interests of original content creators.

Tencent helps users increase their awareness and capabilities around IP protection by launching a platform for disseminating relevant policies and information, and offering easy-to-access channels for submitting complaints pertaining to infringement. The Weixin team has also offered platforms and channels for submitting and dealing with complaints, including the Weixin Online Infringement Complaint System and the Weixin Brand Rights Protection Platform. Weixin Official Accounts Platform and Weixin Security Centre launched crackdown operation to promptly handle illegal, irregular, and infringing accounts. Thanks to its search, investigation, evidence collection, notification for content deletion, and aggregation capabilities, Tencent's technical detection system enables us to efficiently deal with infringement. We work with law firms to establish evidence collection centres in major cities across the country to ensure timely and multi-level collection of evidence, and that infringement is combatted with sufficient evidence. Through user agreements, product pages, announcements and other means, Tencent reminds users to respect the originality of others' work and to not commit any acts that infringe on the rights and interests of other users. Tencent actively handles all complaints against infringement according to applicable laws and regulations, and takes action against such violation, including deleting or blocking the content, or disabling its website link. In addition, Tencent works closely with Internet peers, film and TV production companies, and right-holders to launch campaigns on IP rights.

Tencent respects the intellectual property of others and mandates that all businesses respond promptly to cases of infringement. Specific measures to handle such issues include issuing warnings, handling complaints, raising awareness of intellectual property protection among employees and users, and dealing with infringing content in accordance with the law.

Tencent also carefully safeguards its own intellectual property rights, and our global intellectual property product portfolio has expanded to include over 100 countries and regions. We have amassed IP assets of considerable value as a result of the vast quantity of copyrighted content we have produced. Our intellectual property (IP) team has created a comprehensive database for our patents, trademarks, and copyrights, which enables us to manage and monitor IPs with precision and efficiency. In order to combat IP infringement, our IP team has set up an all-around and efficient monitoring and maintenance system, and has formulated policies and measures to protect our IPs.

We actively participate in relevant public organisations and regulatory consultations and strive to promote awareness of IP protection in the Internet industry. As a member of China National Information Security Standardization Technical Committee, China Intellectual Property Society, the Patent Protection Association of China, the World Wide Web Consortium, the International Trademark Association, and the China Trademark Association, we have participated in the consultation pertaining to the legislative amendments to China's patent and trademark laws and regulations, and have provided input on the development of industry standards. In

addition to regulations and industry standards, we have also been contributing to the development of relevant technical standards, particularly in the area of audio-visual technology, having helped drive the standardisation of next-generation audio-visual codec technology and the protection of relevant IP rights.

In recognition of our contribution to independent innovation and development in China, over the past decade, we had won the China Patent Gold Award multiple times, which was jointly issued by the World Intellectual Property Organization (WIPO) and the China National Intellectual Property Administration; the Trademark Innovation Award by the WIPO and the State Administration for industry and Commerce; and the China Copyright Gold Award by the National Copyright Administration of China and the WIPO. In addition, we have been awarded the titles of "National Intellectual Property Template Enterprise" and "National Copyright Model Unit" for our outstanding performance in IP management and protection.

As of 31 December 2022. Tencent had accumulated

over

40,000 registered patent

over

30,000 authorised patents

China Literature has set up a joint anti-piracy working group covering product, technology, legal, content, customer service, and other departments to establish an intelligent anti-piracy middle office. Various technical means including artificial intelligence, big data, content encryption, and reverse testing enhance anti-piracy capabilities were employed comprehensively strengthening offensive and defensive mechanism, and effectively addressing the problem of automated bulk piracy. The company also combats infringement on pirated contents platforms, search engines, and app markets through the extensive use of various means, including platform complaints, and criminal and civil litigation.

In 2022, China Literature launched the "Young Writers Support Programme" to support the development of young writers and provide them with assistance on four aspects, namely incentive scheme, writing contest, honour rank and viewer traffic support; carried out the "Purple Bamboo Programme" to support women who aspire to become authors by providing them comprehensive training; and launched the "Enlightened Star Award" and "Starlight Award" series of essay writing contest to support the development of sci-fi writers.

Tencent Music Entertainment Group ("TME") take various measures to ensure content offered on our platform does not infringe upon copyrights of third parties. We closely monitor copyrighted content on our platform and therefore to attempt to detect and remediate infringement of third-party copyrights on our platform in a timely manner. We also actively enforce our rights against third-party platforms that infringe upon our content rights, using a combination of human and machine monitoring to detect unauthorised use of copyrighted content on other platforms. Over the years, we have developed long-term relationships with a broad range of music labels that provide us valuable opportunities to collaborate on new album releases, music events and more.

We continue to invest in original content production to meet user demands for diverse forms of music entertainment. We are not just a platform for established artists but also one for discovering and cultivating rising music talents. We cultivate original works and enrich the indie musician ecosystem through our Tencent Musician Platform. Tencent Musician Platform is our online service for selected aspiring musicians to upload original music content to our platform that can be streamed and downloaded, and bringing their original works to hundreds of millions of music lovers in China.

## **Combatting Harmful Content**

According to the characteristics of different platforms, we continuously promote credible and reliable information from trustworthy sources, and enhance advertising risk management, with the aim to strengthen our abilities to control and prevent the dissemination of offensive, infringed, dangerous or otherwise objectionable contents.

For social media platforms, we strive to provide our users with a safe, healthy, reliable and convenient platform at Weixin and QQ. We take into account relevant regulations and follow internal procedure to cooperate with law enforcement departments to crack down on shady cyber activities, including ads with inappropriate message, pirated video contents, and internet ghost writers. We launched Weixin's brand protection initiative "WeBrand", bringing together Weixin, brand owners, and law enforcement agencies in a concerted effort to combat criminal groups selling counterfeit goods offline, and fight the spread of counterfeit goods on our platform; in 2022, Weixin and our WeBrand partners supported law enforcement agencies in handling over 20 cases with a cumulative stake of more than RMB300 million, resulting in the arrest of over 200 suspects.

Users can also report suspicious activities on Weixin and QQ through the Weixin Mini Program called Tencent Guard. We adopt a "manual + big data" control approach - on one hand conducting cluster analysis on reported data to upgrading our combat strategies in real time, while on the other hand, manually classifying suspicious accounts. Through this approach, we have formulated a five-in-one prevention and control system, consisting of the five pillars of "underlying security, whistleblower management, big data detection, fighting cyber black and grey market, and user security education". By the end of the reporting period, the Tencent Guard platform had served approximately 170 million users, received nearly 60 million reports, and took action on 12 million illegal and noncompliant accounts; in addition, the Tencent Guard platform conducted 32 Internet security awareness campaigns together with the National Anti-Fraud Centre and local law enforcement agencies, generating over 660 million total views of related video and infographic contents.

For news media, we strictly manage the contents sources of Tencent News<sup>1</sup>, with measures, including real-name authentication of content owners and classification of contents and creators in accordance with the National Cyberspace Administration of China's requirements. We have set up FACT CHECK, a platform dedicated to verifying information and combating false contents, including rumours and inaccurate information. Tencent News and Weixin official accounts use FACT CHECK to publish around 5 to 7 rumour debunking or educational articles on an average week, with primary focus on topics, including health and medicine, food safety, science and technology. Since its inception in 2015, FACT CHECK has published 3,212 fact-checking articles with total readership of 334 million.



According to national requirements, QQ.com has obtained the "Licensed Management of Internet News Information Services of the People's Republic of China". According to the Provisions on Administration over the Internet News Information Services, QQ.com can engage in the Internet news information service business according to the content contained herein, and the service category is Internet information reproduction service.

On the advertising platform, we strictly follow relevant laws and regulations, build comprehensive case management and risk assessment mechanism, clarify relevant management standards, and optimise communication and appeal channels with all stakeholders; through our risk prevention and control mechanism that covers the full cycle of "before, during and after" advertising, we seek to build a whole-process risk management system in partnership with other stakeholders.

Before advertising

During advertising After advertising

Advertisers must pass account registration review, accept qualification check, and be subject to creative compliance review. For product categories that are closely related to consumers' life and health, the review process also takes into account business characteristics, public opinion and other factors to effectively manage relevant risk.

We use ad inspections to prevent illegal tampering of ad landing pages after review, including quality inspection for physical goods, sampling of private domains, and verification of mobile applications; we also established a model for identifying illegal advertisements to resolutely prevent and control unacceptable risks.

Through day-to-day monitoring of internal and external complaints, collecting and responding to feedbacks from regulators, merchants, and users; applying a tiered approach in managing penalties and complaints against advertisers and ad agents independently, throughout the entire ad lifecycle, including "before, during, and after" launch.

# Responsible Artificial Intelligence

Tencent expects Artificial Intelligence (AI) will be a growth multiplier for us going forward. We have long-standing experience in developing and adopting AI technologies, which has already benefited many of our businesses, including advertising, games, short-form videos, and cloud computing. Our core social and game businesses which are user-to-user oriented can also stand the benefit of being enhanced. As for strategies, we have been developing our own foundation models and plan to gradually roll out these models at the backend, while introducing front-end use cases across our full product range. We are leveraging AI technologies to enhance our product innovations, monetisation, and operational efficiency. Building on these competitive edges, we are rapidly advancing our proprietary foundation model HunYuan which has strong capabilities in Chinese language processing.

In the process of rapidly promoting AI capacity building and application, Tencent actively practises responsible research and innovation. As AI becomes the foundation for the future development of the Internet, we firmly believe that strengthening the ethical governance of AI to ensure responsible use of technology will serve and benefit humanity.

## **Artificial Intelligence Governance**

To promote responsible AI development, Tencent adheres to the "Four Principles" of being available, reliable, comprehensible, and controllable.

We constantly enhance the mechanism for developing ethical literacy. As creators of Al products and applications, our R&D staff personnel must possess sound awareness and understanding of technology ethics, in alignment with our vision and mission of "Tech of Good". In 2022, Tencent developed an internal technology ethics course and training on the subject of technology ethics and Al governance, regularly trained technical personnel, and maintained regular communication to increase technology R&D personnel's awareness of the importance of technology ethics.

To learn more about Tencent's "Four Principles" of Artificial Intelligence, please visit: https://www.weforum.org/agenda/2019/05/these-rules-could-save-humanity-from-the-threat-



## **Artificial Intelligence Data Security**

Tencent attaches great importance to Al data security. Under the guidance of the Personal Information Protection and Data Compliance Management Taskforce, we published the standard document for Al data security, Tencent Al Data Security Management Policy. This document provides relevant standard guidelines and compliance checks for the Al data security protection work of the business to Tencent from the dimensions of Al data management principles, Al data processing workflow, and the responsibilities of parties involved with AI data management.

The Tencent Al Data Security Management Policy mandates that all businesses strictly adhere to the Al data security management principles in all aspects of Al data-handling, including:

- Principle of Data Minimisation: The use of Al data must comply with requirements of using the minimum types and quantity of data. The request for data must have a clear and reasonable purpose, and be directly related to the processing purpose to minimise the impact on user's personal rights and interests.
- Legal Compliance: Strictly prohibit illegal trade of Al data, provision or disclosure of personal information and data. while at the same time prevent theft or illegal acquisition of personal information and data.

To ensure security of AI data at all times, we implement the following AI data security management measures:

 Al data is categorized and managed on hierarchy of importance, with graded and differentiated security protection implemented, and protection of sensitive data is prioritised.

- Grant access rights to Al data users based on the principle of minimum authorisation, requiring them to ensure the safety, reliability, and traceability of the data they employ.
- Establish the mechanism and process for the destruction of Al data and require Al data users to conduct regular data security assessments to identify potential security risks.



## **Al-Driven Social Value: Practical Applications**

Leveraging responsible AI practices, Tencent is at the forefront of exploring the use of AI technology in creating social value, reflecting our commitment to the vision of "Tech for Good."



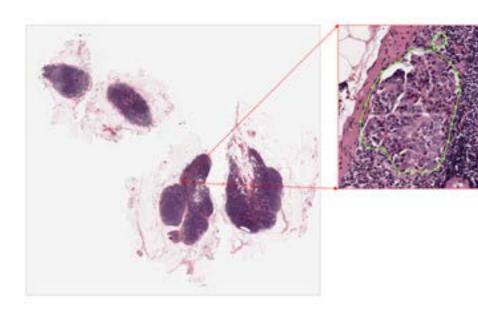
## **AI+ Space Exploration**

The National Astronomical Observatory of China and Tencent are jointly spearheading the "Star Exploration Programme" that utilises cutting-edge AI and cloud technologies to locate pulsars in space, boosting the efficiency of space exploration. Through visual AI analysis, the programme has successfully identified pulsar clues, increasing processing efficiency by a whopping 120x under the same computing power, while reducing false positives by 98%. The programme has leveraged Tencent Youtu Lab's advanced AI technology to discover 22 pulsars in a year through sky survey data.



## **AI+ Quality Inspection**

In the industrial sector, improving the efficiency and accuracy of appearance defect inspections is a universal challenge faced by electronic product manufacturing companies. To help overcome this challenge, Tencent provides customers with self-developed AI quality inspection algorithms, addressing the difficulties of manual visual inspections. AI-powered quality inspections lead to an efficiency gain of up to 10 times and almost eliminate missed defects.





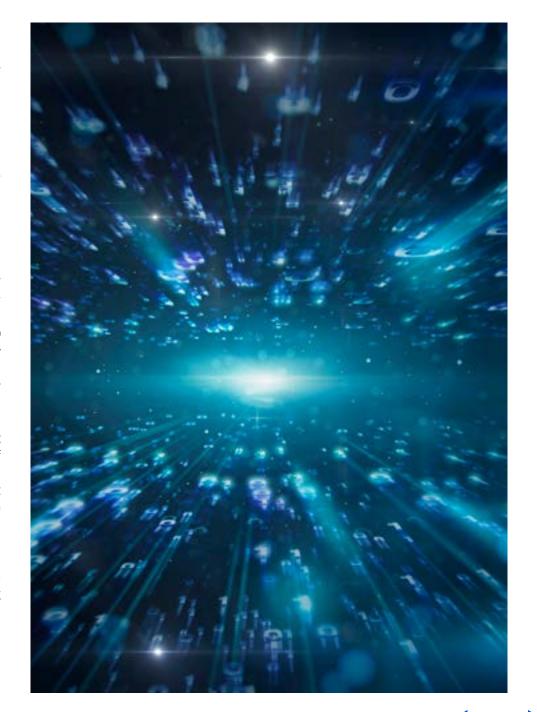
## Al+ Hearing Aid

Tencent Ethereal Audio Lab's state-of-the-art audio enhancement core algorithm solution has proven instrumental in enhancing the clarity and intelligibility of speech in complex scenarios by up to 85% for domestic hearing aid devices. Since 2020, Tencent's "Ethereal Audio Campaign" has collaborated with public charity partners to offer hearing level screenings to more than 4.46 million users, providing speech rehabilitation training and cochlear implant subsidies for over 11,000 hearing-impaired individuals.



## Al+ Healthcare

- The Beijing Union Medical College Hospital and Tencent AI Lab have jointly launched a revolutionary portable intelligent surgical navigation system, which is 100% self-developed. The system has already undergone more than 30 clinical trials, covering five diseases, including cerebral hemorrhage, pituitary adenoma, and glioma. The system serves as a real-time map for clinical doctors, helping them to identify "roadblocks" during surgery accurately, thus significantly increasing surgical reliability.
- Tencent AI Lab's decision-making intelligent AI transfers AI deep reinforcement learning technology, which was initially trained in gaming scenarios, to the field of pathological whole slide scanning image diagnosis, boosting traditional pathological diagnosis efficiency by up to 400% under similar performance. The relevant research paper was accepted by the top international AI academic conference "AAAI 2023," and the code was open-sourced.
- The fully automatic cell morphology analyser, jointly developed by Tencent and its partners, is a technologically advanced system that can restore the three-dimensional structure and details of cells with remarkable clarity, integrating Al algorithms to enhance the accuracy and overall efficiency of slide reading, accurately identifying leukemia. The analyser is currently being tested in several top hospitals in China, representing a major technological breakthrough in the field of medical diagnostics.



# Enhance Customer Communication and Services

With customer requirements as the driving force and cutting-edge technology as the foundation, Tencent continues to enhance the functional design and customer service capabilities of its products and services, delivering customer-focused, timely, and high-quality services via multiple channels to meet users' expectations.

## **Consumer Internet**

Tencent provides users with solutions to problems related to the use of consumer Internet services through intelligent selfservice, manual and other diversified featured channels. The Company learns about users' opinions and optimise product experiences through online surveys, questionnaires, social media platforms, phone calls with users and regular product research. Our Customer Service Department is responsible for handling and answering customers' complaints and inquiries. as well as coming up with satisfactory solutions. Tencent Customer Service offers a wide variety of service channels, including but not limited to our official website, interactive voice response system hotlines, self-service tools, real-time online services, Weixin, and in-person meetings, to ensure timely responses are provided for users in need of assistance.

Tencent Customer Service Centre has established a holistic intelligent service ecosystem, utilising industry-leading technologies, including big data, intelligent voice recognition, and semantic intelligence and other industry-leading capabilities, intelligently cover all aspects of services, including user access, diagnosis, and responses, to improve service efficiency and customer experience. It also manages service quality through intelligent speech analytics and enhances the intelligence capabilities of the manual service platform to comprehend customer inquiries, enables intelligent querying and intelligent archiving, and enhancing efficiency of manual services.

Tencent Customer Service Centre is conducting in-depth research in relevant technology areas. By the end of 2022, Tencent Customer Service Centre has applied for and been granted 97 patents. These patents cover search, cloud technology, artificial intelligence, and other technical fields, as well as database, video processing, business security, account security, and other application scenarios and it plays a significant role in enhancing the internet service experiences.

Tencent Customer Service Centre participated in and passed the first round of the China Customer Service Centre Operation and Service Capability Evaluation in 2022, becoming the first company in the Internet industry to pass the intelligence-level assessment for customer Communication. The evaluation consisted of three capability domains and 17 capability items, evaluate the service maturity of call centre from multiple perspectives and superiority of AI core technology, and continuous improvement of customer service. In addition, we successfully passed assessments in multiple sub-segments, including functional verification, performance testing, material verification, and expert review.

In 2022, Tencent's consumer internet customer service system<sup>1</sup> (including self-services) handled 3.18 billion queries<sup>2</sup>. We received a total of 1,963,706 user complaints, attained a 99% closed-loop processing rate within three business days in respect of the complaints received by internet service customer services.

## **Industrial Internet**

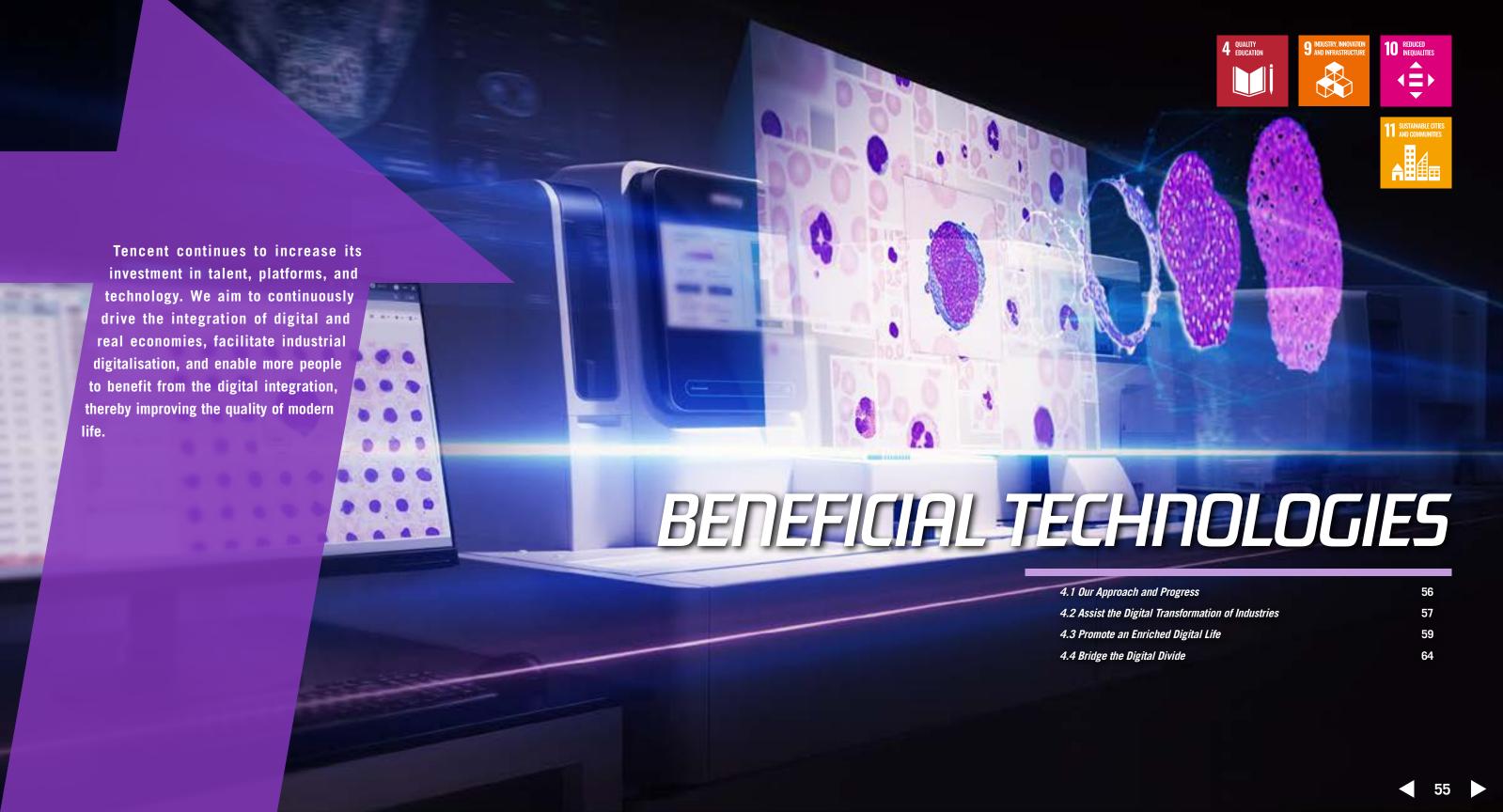
Under the framework of the industrial Internet strategy, Tencent offers enterprises, institutions and individual developers with world-leading technical products and services in cloud computing, big data, artificial intelligence, and SaaS. In addition, we have established a comprehensive operating service system to provide customers with professional technical support, including after-sales service, software service and operation and maintenance guarantee to safeguard their rights and interests.

- Established technical support teams around the globe to provide clients with targeted and efficient services;
- Continuously optimise client service processes based on best practises to ensure issues are handled in a timely and standardised manner:
- Provided diversified service channels, continuously optimised our products and proactively managed product dynamics, and establish a complaint pre-warning and handling platform to solve clients' problems promptly.
- In 2022, Tencent's industrial internet customer service system<sup>3</sup> (including self-services) processed 10.54 million queries. We received a total of 18,708 complaints, 85% of the complaints received by the cloud service were resolved within 7 days and 96% were given five-star customer satisfaction rate.
- Tencent Cloud's "Voice of Users" platform received more than 1,000 effective suggestions for product optimisation, which led to over 600 Tencent Cloud product enhancements.

Tencent's consumer Internet business customer service system includes Internet service customer service and Weixin Video Account customer service.

In 2022, we significantly increased the service volume of self-service tools throughout the year and improved the layout of self-service tools for each business scenario.

customer service, WeCom customer service, Weixin Video Account live stream business customer service, and Weixin Mini Program open platform customer service.



# Our Approach and Progress

Tencent is committed to promoting the integration of the digital and real economies, facilitating the digital transformation of various industries, and helping enterprises enhance their operational efficiency and competitiveness. We join forces with partners of our ecosystem to promote the application of digital technology in a variety of societal use cases, allowing more people to enjoy the benefits of digital technology and the convenience it brings to their work and daily lives.



#### **Assist the Digital Transformation of Industries**

- **Financial institutions:** Introduced a financial sector digitalisation solution to help financial institutions with their digital transformation and enhance their FinTech capabilities in order to provide better services to their customers in various industries.
- Culture and tourism: Built a one-stop, end-to-end service platform
  that integrates various services, including marketing, effective
  communication channel between consumers and merchants, IP
  extension, operations management
  and payment services.
- Retail: Launched Tencent Cloudmall, Tencent Marketing Cloud SCRM (Social Customer Relationship Management), Tencent Youma (one QR Code for one item) among other products to assist retailers in attracting customers and increasing sales.
- Manufacturing: Constructed the WeMake to allow manufacturers can build their own customized solutions based on their needs, thereby achieving higher-quality, more efficient, and safer industrial production.
- Agriculture: Explored the construction of "digital shopping basket programme for food", continuously improve supply security of fresh goods, food safety and traceability, price supervision, contributing to ensuring a stable and reliable supply of agricultural products.
- Construction: Released a full array of smart building and real estate industry solutions, encompassing the entire "plan-design-build-managetransfer-operate" value chain.



#### **Promote an Enriched Digital Life**

- Facilitate digital lifestyle: Concessions on Weixin Pay service fees totalled RMB3 billion from September 2021 to June 2022; helped approximately 40,000 people with physical limitation in Guangdong Province set up "Self-Employment Small Store"; set up contactless remote video banking services for nearly 100 financial institutions, protecting 100,000 of users from fraud with estimated sum involved of about RMB 10 million on a daily basis.
- Explore positive value of game tech: "Digital Great Wall" is the world's first one-to-one digital twin of a large-scale human cultural heritage using various game technologies, including high precision scanning and reconstruction technology, procedural content generation (PCG), game engine and cloud games technology; to date, the project has attracted over 30 million virtual visits.
- Smart healthcare: Released a low-cost, high-precision, easy-to-operate portable intelligent surgical navigation system in collaboration with Peking Union Medical College Hospital.
- Smart transportation: Deploy digital-twin technology through Tencent Cloud to enable the delivery of effective mobility solutions through synchronisation of people, vehicles and roads.



#### **Bridge the Digital Divide**

- Barrier-free technology: An innovative braille keyboard solution for the visually impaired won the "Zero Project Awardee 2023" prize and was chosen as an "2022 CCF¹ excellent case of technology for good".
- Support tech talent: Carried out Tencent Rhino-bird Open-source Training Programme<sup>2</sup> to promote development of the open-source ecosystem.
- Create job opportunities: Tencent's digital ecosystem had cumulatively created 147 new professions<sup>3</sup>, among which 14 are mature, 26 are in the growth stage and 107 are in the early stage.

- China Computer Federation
- The Tencent Rhino-bird Open-source Training Programme is one of the sub-programmes of Tencent's collaborative initiative with universities, the Rhino-Bird Programme. The Rhino-Bird Programme operates based on the three pillars of "joint research, talent development, and academic exchange", with the aim to promote innovation in information technology, cultivate top talents for the tech sector, and foster a healthy internet industry ecosystem.
- Data source: The \( \text{Tencent New Occupation and Employment Development Report \) (2022) was compiled and published jointly by Tencent Social Research Center and Chinese Academy of Personnel Science.

# Assist the Digital Transformation of Industries

From connecting people, content, services and devices, to bridging enterprises and future technologies, Tencent shares its innovative spirit and technology with partners from a variety of industries. We integrate advanced technologies, including cloud computing, big data, and artificial intelligence, into various industries to support the real economy development and digital transformation in a more secure, efficient and creative way.

## **Financial Institutions**

Leveraging our industry-specific cloud solutions for finance, Tencent assists financial institutions achieve digital transformation and innovative development. We also support the industry to enhance cybersecurity risk management to better serve the real economy, and cope with increasingly complex network security threats.

We help financial institutions accelerate the deployment of digital solutions and upgrades in their systems at lower technology costs through Tencent Financial Cloud's enhanced infrastructure, services capabilities, and connectivity. We assist financial institutions in quickly building up digital operation platforms to improve efficiency, enhance user experience and accelerate the process of digitalisation. In addition, with the open platform of Tencent Financial Cloud, we helped financial institutions quickly access various technologies and resources within Tencent's ecosystem to promote innovation and development of financial businesses. As of the end of 2022, approximately 90% of China's leading commercial banks have adopted Tencent Cloud solutions in their digital transformation. More than 90% of licensed consumer finance institutions and a large number of industrial finance institutions have also partnered with Tencent Cloud.

At the same time, we combined big data, artificial intelligence and other technologies to help financial institutions implement cybersecurity risk management and anti-fraud compliance. Through Tencent Security T-Sec Network Attack Awareness, T-Sec Cloud Security Compliance, T-Sec Data Warehouse and other products, we help them reduce risks and losses. In 2022, T-Sec was awarded the "Best Consumer Credit Technology in China" by The Asian Banker.

## **Culture and Tourism**

Tencent focuses on integrating technology into culture and tourism to achieve innovation and implementation in end-user experience. We continue to explore the application of digital technology and its value for the sector.

- Full-array Smart Tourism Solution: Systematically provide an innovative cultural and tourism application system supporting whole-process service and management for destinations, scenic area and tourists through big data, artificial intelligence and other technologies.
- Smart Scenic Area Solution: Serve as a digital assistant for scenic area management, providing one-stop products and service capabilities for administrators and tourists that include visitor services, site administration and marketing.
- Smart Cultural & Science and Technology Museum Solution: Help museums, cultural and educational sector through our platform, technology, connectivity and content to enable museum management and cultural relics protection, reinnovate cultural value and enhance museum experience; leverage on Tencent's frontier technology exploration to enhance cultural and tech education.

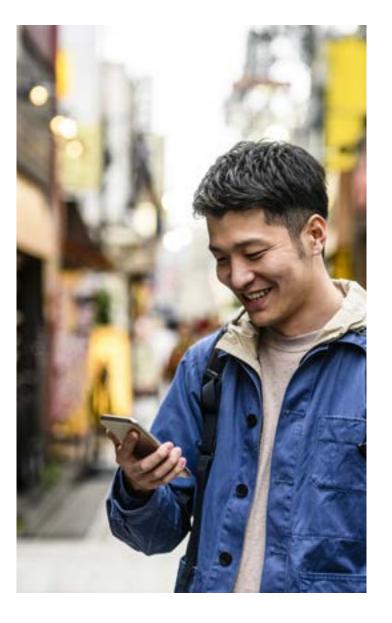
In 2022, we launched a programme to unleash partnership's potential value, covering 25 provinces and autonomous regions in China. We have already implemented more than 300 digitalisation projects worldwide, including One-Click Travel in Guangxi, Chengdu Tianfu Smart Greenway, Da Bao'en Temple AR Immersive Experience, Yellow River Intangible Cultural Heritage Digital Museum, Grand Canal National Cultural Park Digital Cloud Platform, and Beijing Smart Workers' Stadium. For more information, please see the section "Creating Social Value – Digitalisation of culture".

## Retail

Tencent has launched various toolkits and solutions, including one-stop online mall solution Tencent Cloudmall, CRM SaaS product Tencent Marketing Cloud SCRM and QR code-based digital marketing solution Tencent Youma to address merchants' pain points, assisting retailers to attract customers and increase sales conversion.

Tencent leverages its technology to help a large number of micro, small and medium-sized enterprises ("MSMEs") in the retail industry realise digital transformation, and optimise production, operation, and management efficiency.

- Offered a 10% discount on payment service fees to small and micro-sized enterprises and individual merchants; reduced their operating costs by providing scan-to-pay QR code with cybersecurity guaranteed for free and business materials at favourable pricing.
- Delivered thousands of online and offline courses covering topics related to smart retail, including digital marketing and SME management.
- Helped retail merchants gain more exposure through Tencent's game franchises, including the online-to-offline cross-marketing campaign through the Honour of Kings game.

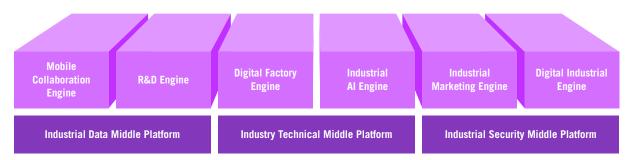


## **Manufacturing**

We created Tencent WeMake, a cross-sector and crossregion industrial internet platform that exports technological capability, including cloud computing, IoT, big data, and artificial intelligence that require heavy capital investment and a large IT talent pool, allowing industrial customers to maintain their focus on product innovation and user experience.

Based on Tencent Cloud's advantages and capabilities, we offer manufacturing enterprise customers with a solution of 1 (cloud base) + 3 (big-middle platforms) + 6 (big engines) + n (industrial internet applications), allowing enterprises to quickly customise solutions by assembling the right tools based on their needs and circumstances.

#### **WeMake – the Six Engines and Three Middle Platforms**



- We provide our customers with Al Industrial Quality Inspection technology, which can detect defects within just a few seconds, while reducing the workload of quality control personnel. The technology helped customers achieve a 10-fold increase in detection efficiency.
- We combined real-time audio-visual communication technology with our partners' 5G network to reduce signal latency to within 100 milliseconds, thereby resolving delays in remote signal transmission for construction vehicles. The technology enables operators, in a safe and comfortable control room, to remotely control up to five mining trucks in an otherwise hazardous environment, enhancing workplace safety, as well as operational efficiency.
- We have combined our self-developed game engine technology with digital twin technology used in industrial sectors to make model creation and high-fidelity simulation of factory operations a lot easier.
- We help our customers significantly improve the verifiability of warehouse bills, offering users traceable and authentic on-chain record, in their blockchain-based registration system powered by Tencent Cloud.

# **Agriculture**

Leveraging our "connection + collaboration" strengths in industrial internet. Tencent offers technologies and platforms in areas, including agricultural product marketing, agricultural enterprise development, and agricultural blockchain R&D.

We collaborate with partners to explore the development of "digital shopping basket programme for food", helping stabilise supply and assist marketing of agricultural products. For instance, Tencent's smart agriculture solution created a digital supply chain platform for Guizhou Qianyang Ice Sugar Orange, facilitating brand incubation, enabling product traceability and multi-channel digital marketing, allowing Qianyang Ice Sugar Orange to achieve its annual sales goals of over 400 million kilograms.

We employ blockchain technology to connect the upstream and downstream activities, including agricultural production, food traceability, digital talent training, sales assistance, brand promotion, and digital finance. For example, we assisted the local government in Deyang City, Sichuan Province in establishing the regional brand "Jingyang Chain", which will benefit local agricultural enterprises and farmers.

## Construction

Tencent has released a full array of construction and real estate industry solutions, including cloud services WeBuild for construction, CRM services WeClient for property development and management, and city planning services WeSpace Smart Space for urban renewal. These solutions encompass the entire "plan-design-build-manage-transfer-operate" value chain, assisting in the industry's digital transformation.

The WeBuild cloud solution assists the construction industry in achieving digital transformation, promoting a more sophisticated, greener and tech-driven value chain.

One of our partners, a regional construction company, adopted WeBuild, and built a hybrid cloud technical architecture, to support business management, enhance technology platform, and connect ecosystem partners. In 2022, the company has built a central data management platform through Tencent Cloud, creating a data lake and extensive data analysis system.



# Promote an Enriched Digital Life

Tencent actively explores ways to enrich people's lives while creating greater social value through the use of digital technologies, including mainstreaming digital payments and internet-based financial services, applying game technologies to societal and industrial use cases to create positive impact, and collaborating with industry partners to promote intelligent healthcare and transportation services.

## **Facilitate Digital Lifestyle**

Leveraging our digital payment services, Tencent serves over 800 million monthly active user accounts (MAUs) through extensive service categories, bringing convenience of digital life and more opportunities to the general public, MSMEs and self-employed, residents of remote and rural areas, and underprivileged groups.

## Payment tool used by more than 800 million MAUs<sup>1</sup>

Digital payment has been widely integrated into social life and has become essential to supporting society's operation. We provide convenient and fast payment services for users through Weixin Pay, covering use cases, including clothing, dining, housing, transportation, utilities bill payment and money transfer. Users can start online and offline fast payment through built-in features, including QR codes, Red Envelopes and Transfers in a diverse range of use cases.

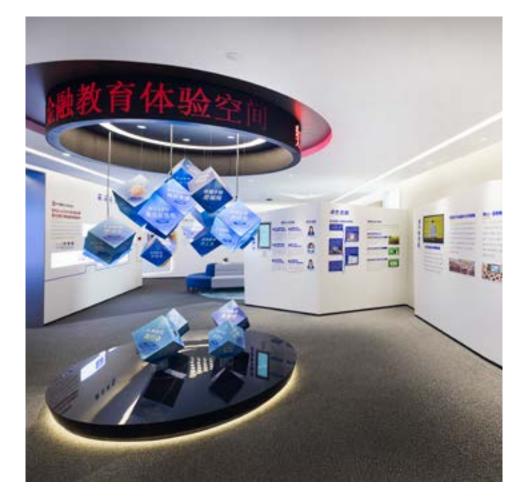
The digital platform can help users access public services more conveniently and efficiently. We have set up access points in the Weixin mobile application for various payment use cases, including utilities payments, public services, and Tencent Charity, making it easier for users to enjoy the convenience of digital life.

- Users can conveniently view and pay their utilities bills, including for electricity, water and gas bills and enjoy a series of features, including auto-payment and payment reminder.
- Users can book hospital visits and vaccine appointments, show Medical Insurance
  e-Certificate for payments, view social security account, and apply for provident
  fund withdrawal, the processing of which is synchronised with corresponding
  government systems.
- Users can also conveniently discover and donate to charitable causes they are interested in through the Tencent Charity access point, select one-time or monthly donation to the user-designated charitable projects through Weixin Pay.

To meet the growing and diverse needs of payment users, we partner with third-party financial institutions to provide compliant, secure, convenient and stable online financial services channels. Under Weixin Services in Weixin app, we set up a convenient access point to provide the underprivileged communities with financial services, including wealth management, micro-loans and insurance at the snap of a finger.

- Wealth Management Platform: Users can purchase different types of wealth management products that have been strictly screened by Tencent on this platform to meet differentiated wealth management needs. LingQianTong is a product through which users can buy money markets funds with zero sales charge. Users can transfer excess cash balance in Weixin Pay wallet or funds from debit cards to invest in low-risk money markets funds. The invested funds can be withdrawn at any time to Weixin Pay wallet for red envelope gifting, transfer and consumption purposes.
- WeiLiDai: An Internet-based micro-loan product launched by WeBank and distributed via Weixin. Users can complete online applications, receive funds instantly, and repay at any time via their mobile phones, enjoying secure and reliable consumer finance services with no collateral requirement.
- Insurance service: Users can purchase various insurance products that have been hand-picked by Tencent WeSure, allowing them to compare different policies and file for claims conveniently online.

We invested resources to enhance financial literacy and investor education, through online platforms covering payment-related official websites, Weixin Official Accounts and Weixin Video Accounts, and offline via Tencent Financial Education Experience Centre. Through these channels, we seek to increase users' understanding of financial risks and raise anti-fraud awareness among the public.



As of 30 June 2018, Weixin Pay's MAU (Monthly Active Users) was over 800 million.

## Smart business solution chosen by more than 50 million merchants<sup>1</sup>

Tencent leverages its technical capabilities to provide digital transformation solutions and services for MSMEs. Through best practice sharing, provision of payment tools and fee reductions, we help MSMEs and self-employed individuals improve efficiency, reduce costs, and grow their businesses.

We bring secure, stable and efficient cloud services to MSMEs through Tencent Cloud, provide them with internal collaboration and communication tools that integrate various operation and management functions through WeCom; we also provide digital marketing solution within the Weixin ecosystem, helping them reach customers through Weixin Official Accounts and Weixin Mini Programs. During the 2022 National SME Digital Service Festival, Tencent shared its experience of digital transformation and conducted more than 100 online and offline training courses and consultations.

We provide MSMEs with convenient and easy-to-use payment tools to help level the playing field, and manage customer relationships. With Weixin Pay, merchants can complete transactions, collect payments at any time through the QR code function, and track online transactions accurately without the need for manual records. During the pandemic, we lowered service fee for small and micro merchants, as well as self-employed individuals to reduce their operating costs and hardship. From September 2021 to June 2022, Weixin Pay had exempted service fee of approximately RMB3 billion, benefiting over 20 million small and micro merchants.

## Supporting residents in remote and rural areas

We use digital technology to help our partners improve rural financial services, optimise workflow, enhance efficiency, and facilitate access to financial services in remote and rural areas.

We use Al and audio-visual technology to build a comprehensive service platform for financial services in rural areas and support financial institutions implement offlineto-online financial services via a virtual service counter. With the help of technologies, including real-time audiovisual communication and electronic seal, we change the conventional face-to-face business that can only be handled offline, and facilitate villagers and elderly users' realisation of self-help services, improving the convenience of business processing and providing financial services to people living in remote areas. The virtual service counter has set up remoteaccess, video-based banking services for nearly 100 financial institutions, including Hubei Rural Credit Cooperatives, Fujian Rural Credit Cooperatives, Guangzhou Rural Commercial Bank, Shenzhen Rural Commercial Bank and Shanghai Rural Commercial Bank.

Using innovative technologies, we shorten handling time of rural financial services, reducing signing time for multi-person guaranteed loans from 3-5 days to 15-30 minutes, increasing labour productivity by more than 10-fold, and resulting in increased user satisfaction from financial inclusion.

In Fujian, the "virtual service counter" has landed a total of 55 rural commercial banks in three years, with around 50,000 financial service transactions handled remotely via video in 2022. In the Longyan area, due to its remote location, mountainous terrain, and long travel distance, offline financial services are either not available or barely accessible. We assisted local financial institutions to provide online financial services for about 9,000 people, representing a transaction amount exceeding RMB1.6 billion, and supported users living overseas, including Ethiopia, Cambodia, Laos, the United Kingdom and Singapore handle a dozen different types of services.





## **Supporting underprivileged communities**

We have long focused on serving underprivileged groups, including merchants with physical limitations and economically disadvantaged people, by giving them customised support to increase their economic independence and risk protection, thereby improving the quality of life.

In 2022, we launched the "Self-Reliant Small Store" campaign with our partners, connecting approximately 40,000 self-employed merchants with physical limitations in the Guangdong Province. Weixin Pay provided them with five free exclusive benefit packages. These benefits include barrier-free business toolkits, assistance for business owners belonging to vulnerable groups, customer-sharing and referral programs, charity donations, digital business training, and exclusive one-on-one coaching sessions.

In 2022, Tencent WeSure, in collaboration with insurance companies, launched an inclusive insurance programme for the economically disadvantaged groups in Guangzhou, whereby policyholders pay only RMB1 for a medical coverage of RMB2.45 million, on top of government medical insurance. The programme benefited approximately 31,000 most vulnerable residents in Guangzhou.

Weixin Pay has joined forces with tens of thousands of catering and retailing outlets to launch "Love Meals" and "Love Water" in appreciation for sanitation workers. Users can easily donate in daily food ordering and other use cases. Donors can also track their donations through Weixin Pay's real-time feedback. In coffee and other consumption use cases, we joined hands with merchants to advocate low-carbon consumption together, keep and upload users' low-carbon records through Weixin Pay's low-carbon data interface, accumulating low-carbon records for users. In all of abovementioned projects, users can receive Little Safflowers, which can be donated to charitable projects. These ubiquitous charitable activities raise charity awareness among users, boost Weixin Pay's reputation and provide a creative way to tackle social issues.

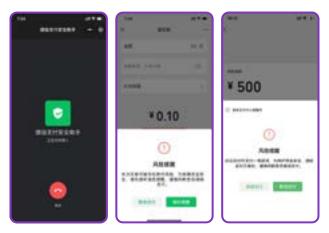
## **Protecting payment security and consumer rights**

We have established the Company's Financial Consumers Rights Protection Department to oversee the protection of the rights and interests of financial product consumers across Tencent's various business areas.

We set up dedicated "consumer protection" sections on relevant products pages, providing one-stop customer service involving secure payment guarantee, user information protection, contract management, payment options and anti-fraud education.

To prevent fraudulent activities from causing monetary losses to victims, Weixin Pay has built a model to limit malicious accounts' ability to pay, and reduce user losses through freezing and stopping fraud-involved funds. At the same time, we have optimised the machine's automatic auditing capabilities to effectively identify high-risk fraudsters, greatly improving auditing and response efficiency, and further cracking down fraudulent activities.

The system provides a comprehensive assessment of fraud risk level based on the degree of suspicion of a transaction. Different types of fraud risk are graded from low to high, and treated accordingly, ranging from transaction fund restrictions to account restrictions. When the system identifies abnormal characteristics of a recipient's account, it will instantly alert the payer to the transaction risk in a pop-up window. As for risky transactions, Tencent supports users to carry out two-factor authentication in various ways; and when necessary, manual intervention will be carried out through the "Online Payment Anti-Fraud Manual Alert" to alert users of the risks and even block risky transactions.



Risk Alert by Weixin Pay Assistant

#### **Progress of Tencent's anti-fraud efforts**

- In 2022, after the promulgation and implementation of The Anti-Telecom and Online Fraud Law of the People's Republic of China, the Group management established an anti-fraud taskforce, organised study sessions, optimised supporting systems, and ensured comprehensive implementation of the requirements. At the same time, the Company adopts measures to strengthen KYC review beforehand, classifies malicious accounts by payment scenario and fraud type during and after transactions, and conduct differentiated crackdowns according to the degrees of severity, protecting hundreds of thousands of potentially defrauded users involving at-risk funds of approximately RMB10 million on a daily basis.
- Under the guidance of China's National Anti-Fraud Centre and local law enforcement agencies, the tech sector launched a series of anti-fraud campaigns to expose scams, including rebates received from illegal swiping, impersonation of law enforcement officers, and romance scams. Tencent actively participated in the industry-wide anti-fraud public education through Weixin, QQ and other proprietary platforms to enhance users' ability to recognise and avoid fraud. We also launched creative anti-fraud awareness campaigns through Weixin Moments ads, subway station displays, and other creative forms, including QQ AR, to expand the audience reach and further enhance the public awareness in regards to anti-fraud.



Tencent Anti-Fraud Campaigns

## **Explore Positive Values of Game Tech**

Tencent believes that games are not isolated and that they have always been a part of human activities, having continuously evolved alongside the advancement of technology and civilisation. Based on our expertise and technological capabilities and values in the games industry, Tencent actively explores the positive value of games technology in promoting the development of tech industry, driving the real economy, innovating the talent cultivation model in various industries, and enhancing cultural and environmental conservation.

"Digital Great Wall" is the first landing project of Tencent's first batch of games with unique positive values. It is the world's first comprehensive and innovation application of various cutting-edge game technologies, including game engines, PCG programming generation, and cloud games, to create stunning products that are astonishingly realistic and immersive.

- The Digital Great Wall project uses photogrammetry technology to precisely scan and measure the Great Wall, employing techniques, including laser shooting for shape, camera shooting for photos, and drone-enabled photo shooting to achieve photographic-level and 1:1 reproduction of the actual appearance.
- Backdropped by cloud games technology, all high-precision images are rendered and executed on servers in a self-built 10,000-megabit cloud data centre, significantly reducing the computing burden on users' mobile devices.

This project has expanded the boundaries of games industry to explore positive value and apply game tech into more use cases. It became a model of digital cultural preservation and won the 2022 "Global World Heritage Education Innovation Case Award". It is also a breakthrough in Tencent's eight-year efforts to preserve the Great Wall as part of the national initiatives to "promote the digital sharing of Chinese cultural achievements".



Tencent encourages more game developers to consider the social value of their products. For example, we have organised the Tencent Youth Game Designer Challenge for years, encouraging participating teams to create games with themes of preserving traditional culture, addressing social issues, and conducting scientific research. In 2021, the challenge was launched under the theme of environmental protection; and in 2022 of intangible cultural heritage. As a member of the United Nations Environment Programme's "Playing for the Planet" alliance, TiMi Studios launched a contest in collaboration with Tencent Institute of Games under the environmental protection theme, to enhance sustainable development awareness among future game developers. Developed by a team of university students, a simulation game named "Forest in the Desert", which was based on real-life case of desert-based farms, won the competition's gold medal and garnered widespread attention.

"Forest in the Desert" uses the afforestation of the Mu Us Desert as the story background, allowing players to reflect on their connection with the land beneath their feet. To ensure a rigorous and reasonable game-based narrative, the development team conducted extensive research in the North-western desert and communicated with forestry protection researchers to obtain pertinent research results. "Forest in the Desert" represented Chinese games at the 26th United Nations Climate Change Conference (COP26).

The Weixin Mini Program called Cloud Tour of the Great Wall which is part of the "Digital Great Wall" project, was officially launched on the 17th "Cultural and Natural Heritage Day" in 2022, and was recognised by institutions and experts, including the National Cultural Heritage Administration, Beijing Municipal Cultural Heritage Bureau and China Foundation For Cultural Heritage Conservation. At the same time, it achieved phenomenal influence in social media platforms, including Weixin Video Accounts, Bilibili and Weibo, topping the trending words chart and significantly enhancing users' knowledge of game tech.

As of 31 December 2022, the total number of visits to the "Digital Great Wall" exceeded 30 million, and daily active visitors hit 40,000.



## **Smart Healthcare**

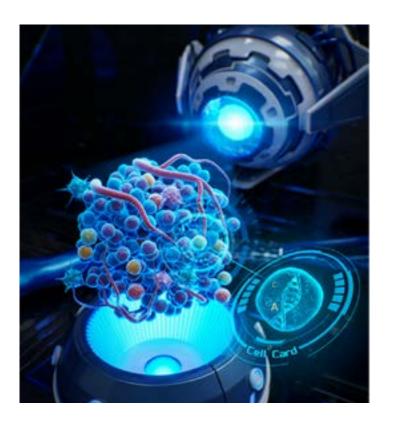
Tencent assists the healthcare community in advancing their research and clinical applications by focusing on the integration of AI technology in diagnostics and treatment. We have developed a groundbreaking AI model based on large-scale pre-training model that addresses the limited adaptability of previous cell-type annotation algorithms, resulting in a significant improvement in cell-type identification accuracy. Our innovative "scBERT as a Large-scale Pretrained Deep Language Model for Cell Type Annotation of Single-cell RNA-seq Data" has been published in the esteemed academic journal "Nature Machine Intelligence", a subsidiary of Nature, ranking first in the field of artificial intelligence.

In 2022, we introduced "Tencent AIMIS Open Platform" to foster collaborative innovation in AI in the fields of radiology and pathology, aiding our partners in developing end-to-end capabilities, from image data anonymization, input, and annotation to model training, testing, implementation and didactic use. Tencent AIMIS obtained Class-III medical device approval for pneumonia and glaucoma, which validated the competency of AIMIS to assist physicians in making diagnostic decisions, thus improving clinical efficiency.

We utilise AI technology to enhance hospitals' diagnostic and treatment capabilities, empowering hospitals to offer patients safer and more cost-effective healthcare services. In collaboration with a top medical institution, Peking Union Medical College Hospital, we have developed an intelligent surgical navigation system that employs AI to support neurosurgical procedures. This high-precision, user-friendly system enables sub-millimeter accuracy in aligning preoperative 3D virtual brain models with the patient's brain during surgery, improving surgical safety. Moreover, the aforementioned system merely requires a standard tablet computer to operate, which makes it cost-effective and portable.

We provide broadly accessible digital health solutions, helping society build higher-quality and more convenient public health service. We use Internet technologies to support the development of city-level health information platforms, which facilitates public health intervention and early warning, ultimately contributing to the improvement of society's overall healthcare management capabilities. Additionally, we utilize Weixin Mini Program called Tencent Health to connect public hospitals and vaccination services, while promoting reliable medical knowledge to users, offering an integrated online and offline portal for individuals for health-related services.

During the COVID-19 pandemic, we launched health code, PCR test code, and a mutual aid Weixin Mini Program to help society collectively address the challenges posed by public health events. For more information, please refer to the "Creating Social Value – Assist with Public Emergencies" section of this report.



## **Smart Transportation**

We developed the Riding Code solution to serve urban transportation sector. Tencent's Riding Code provides users a convenient and efficient transportation experience, and helps urban public transportation digitally transform. With the Riding Code platform, we make it more convenient for people to take public transportation to pay fares seamlessly by scanning the code; we also provide digital bus/subway schedules, allowing users to check real-time public transit, plan travel routes in advance, and travel smartly.

Since announcing the WeTransport strategy in 2020, Tencent has been actively collaborating with its ecosystem partners to develop smart transportation infrastructure for a variety of use cases in highways, urban public transport, marine ports, airports and railways, in order to improve the wellbeing and safety of passengers.

Tencent Riding Code provides a convenient, efficient, safe and environment-friendly public transportation experience for hundreds of millions of passengers.

It takes only 0.2 seconds to complete the code verification, so users can scan and go without waiting in line to purchase tickets or recharge. Meanwhile, we apply dual offline QR code payment technology, including private key signature and certificate encryption to enable offgrid code verification so that the Code can be used conveniently, even under poor network conditions. In addition, users can use the Code to travel conveniently in different cities, avoiding the hassle of frequent topups and ticket purchases.

The application of the Tencent Riding Code helps the public transportation sector realise digital transformation. It supports preferential transportation policies, including bus and subway joint ride discounts and free rides, providing more personal benefits to users and encouraging more users to take public transportation and live the low-carbon lifestyle. Further, we quantify the carbon footprint of users' public transportation trips through the Blue Planet app and convert it into carbon credits to encourage sustainable lifestyles.

- As the first in the industry to propose cloud-based decisiondriven 5G-V2X (referring to the "vehicle to everything" – vehicle to outside information exchange) technology, we get rid of the shortcomings of traditional V2X which relies solely on proprietary terminals and private networks.
- We have integrated 5G V2X technology with our digital twin technology to create a real time digital twin system. With comprehensive sensing, robust computing, wise decision making and wide-reaching capabilities, supporting the operation of millions of vehicles and providing real-time traffic prediction and simulation in seconds.
- We developed multi-sensor fusion engines and deployed in scale an all-weather, low-latency roadside LiDAR perception system for the first time in China
- Created a digital twin lane-level navigation application, which enables the visualisation of all-angle road conditions, including blind spots, while driving, and provides driving assistance, including collision alert and vulnerable road users alert.

At the 25th IEEE International Conference on Intelligent Transportation Systems (IEEE ITSC 2022), Tencent was listed and ranked first in the 2022 Intelligent Transportation Systems, and received the "Excellent Intelligent Transportation AI Companies" and "Excellent Cooperative Vehicle Infrastructure System (CVIS) Companies" awards.

# Bridge the Digital Divide

Tencent fully utilises its strength as a tech company, and uses advanced digital technologies to assist users, including those with physical limitations to improve their quality of life. We also actively provide assistance and hand-on opportunities for the development of tech professionals, helping them seek and find employment opportunities in innovative ways.

# **Barrier-Free Technology**

Tencent invests technical efforts to develop products and services suitable for people with physical disabilities. We leverage the strengths of digital technology to assist them to overcome obstacles in life, support them to take part in digital life, and bring convenience and joy to their daily lives.

- We have launched the "Accessible Emergency" feature using speech recognition technology to enable text-to-speech and speech-to-text conversion in 24 dialects, which assists people with hearing impairment in seeking help independently and efficiently. In addition, we have partnered with public charity organisations and collaborators to launch the "Ethereal Audio Action" programme, which offers free access to Ethereal Audio Al technology to developers, manufacturers, and partners in the social responsibility field for people with hearing impairment. The aim is to improve the noise reduction effect of cochlear implants and enhance the user experience to help them overcome hearing difficulties.
- We have developed industry standards for haptic feedback and braille input technology to create the first standardised game vibration tactile system, which is compatible with hundreds of millions of domestic and international mainstream mobile devices. With a recognition rate of over 90%, the braille input solution is integrated in Sogou Input Method and Tencent Maps to aid messaging and navigation for the visually impaired. We have also launched a Free Licensing Programme for Information Accessibility Technology Patents, which allows more teams to participate, and enables technology to reach more users and support more use cases. This programme won the "Zero Project Awardee 2023" and was included as an "Excellent Case of 2022 CCF Technology for Good".
- We launched a philanthropic programme ZhongSheng to promote barrier-free input technologies for people with physical limitations. We open-sourced our voice-to-text conversion, OCR image reading, and eye-tracking input technologies to industry partners, and promote inclusive technologies for those in need. In addition, Sogou Input Method released the "eye-tracking input" solution, where users can input text with eyeball movements tracked by a built-in eye tracking device in the computer.

Tencent shares our thoughts on technology accessibility with the industry and incorporates them into relevant guidance documents, thereby assisting other companies in the development of more accessible, high-quality products and services. We are committed to enhancing the service quality for people with disabilities and the elderly.

# **Talent Support**

Tencent invests in tech talent development projects at various levels, from professionals to the general public, with the goal of cultivating more technology talent and promoting high-quality industry development.

- We continue to implement the Tencent Rhino-bird Opensource Training Programme via collaboration with tertiary education institutions to train talents, promote culture and expand the talent pool. In 2022, the programme launched introductory courses, conducted advanced research, and developed practicum programmes on open sourcing.
- In 2022, we signed a strategic cooperation agreement with Shenzhen University to establish a joint research platform, share teaching resources and joint projects to expand cooperation.
- We provide fun, interactive and certified coding courses and hands-on projects for students of all ages. We also organised competitions and bootcamps to inspire teenagers to learn coding, including Tencent Youth Al Dream Camp and the NOC (Novelty, Originality, Creativity) Contest for K12 students.

# **Create Job Opportunities**

We promote the deep integration of digital and real economies, creating opportunities for emerging professions and accelerating the stable development of new professions. To date, Tencent's digital ecosystem encompassed 147 new professions, among which 14 are mature, 26 in growth phase, and 107 in nascent phase<sup>1</sup>. In addition, Weixin digital ecosystem generated nearly 50 million job opportunities<sup>2</sup> through Weixin Official Accounts, Weixin Mini Programs, Weixin Video Accounts, Weixin Pay, and WeCom.

This digital ecosystem has also given rise to many new industries, formats, and business models, thereby generating numerous inclusive and equitable job opportunities. Leveraging Tencent's digital ecosystem and tools, including WeCom and Weixin Mini Programs, more people can engage in new professions that are more flexible and self-directed, providing a better work-life balance, especially for women and people with physical limitations. Additionally, we promote vocational education online through Tencent Classroom platform, enabling more young people to access affordable learning resources and upgrade their skillsets.

Data from Tencent New Career and Employment Development Report (2022)

Job opportunities refer to income opportunities through the Weixin ecosystem, including formal employment, entrepreneurship, self-employment, freelancing, as well as part-time or short-term contract arrangement. In light of current trend in the job market, where an individual can engage in multiple jobs at the same time, such jobs would be recorded as separate jobs due to the limitation of research methodology. Therefore, the number of job opportunities is not equivalent to the number of working population.



# Strategy and Progress

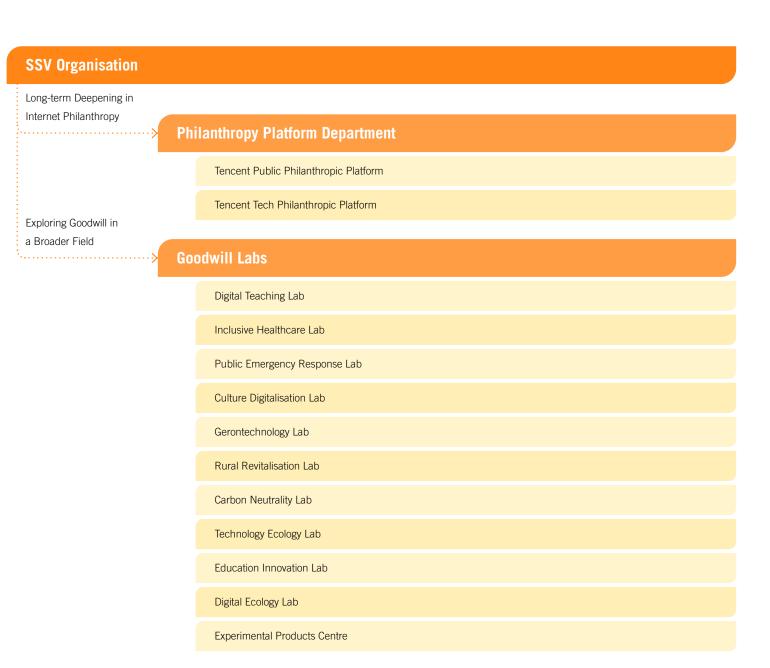
In 2021, Tencent added "promoting Sustainable Social Value (SSV) innovation" into the Company's core development strategy and invested RMB100 billion to fund initiatives in 10 core areas. We believe engaging with a wide range of stakeholders is key to find the best solutions to social problems, and have created an ecosystem where users, industries and the society can collaborate with each other. In addition, Tencent is committed to co-creating greater social value by leveraging its core tech capabilities and funding resources.

We established the Goodwill Labs and Philanthropy Platform Department under SSV Organisation, adopting a systematic management principle and workflow of "approve (before), track (during), evaluate (after)" to track the life cycle of projects tied to SSV's core areas, from preliminary evaluation and review to execution and large-scale rollout, ensuring that SSV initiatives reflect our in-depth understanding of social needs.

- Preliminary project evaluation: Evaluate whether projects are aligned with Tencent's SSV innovation strategy, taking into account internal and external stakeholder expectation;
- Project review: Assess and approve project plans focusing on SSV's 10 core areas, through a professional evaluation and decision-making mechanism;
- Project execution: Establish performance measurement framework, track projects' progress against pre-determined targets through a regularised mechanism to identify and address potential risks in a timely manner;
- Project rollout: Replicate successful pilots at scale, while seeking to continuously refine operating models process as business evolves.

To ensure effective and smooth implementation of our SSV strategy, we manage risks associated with SSV innovation through the "Three Lines of Defence". The Company's risk management and Anti-Fraud Investigation Department seeks to identify and manage SSV-related risks through audits and/or investigations, especially for risks involving business, finance, information security and compliance.

The first line of defence focuses on our operations and daily management. Based upon the systematic management principle and workflow discussed above, SSV Organisation works with internal and external industry experts, as well as functional departments, including finance, legal, tax, and procurement to effectively identify and manage risks relating to strategy, returns on funding, compliance and supply chain management. The second line of defence involves the Company's overall risk management, and the third line of defence involves independent assurance on the Company. Details are disclosed in "Corporate Governance Report" within Tencent's 2022 Annual Report.



Tencent has also set up the Tencent Sustainable Social Value Award to encourage employees from different business and functional lines to participate in SSV projects and embrace our mission, "Tech for Good". In 2022, a total of 16 project teams were awarded for their achievement related to SSV's core areas, including research in basic sciences, carbon neutrality, public health emergency response, tech philanthropy, digitisation of culture, and technologies focused for the needs of elderly users.

In 2022, Tencent allocated RMB5,836 million in the areas related to SSV & CPP (Common Prosperity Programme)<sup>1</sup>, including research in basic sciences, rural revitalisation, and digital philanthropy. Going forward, Tencent will continue to invest in projects that have been vetted and proven to generate social value.

- In 2021, the Group was in early stages of exploring the various SSV areas. After more than a year of careful evaluation and rigorous screening, the Group has identified key areas and increased SSV's resources. From 2022 onwards, the Group's donations to the Tencent Foundation will all be used for the implementation of projects in the field of SSV & CPP and related expenditures will be included in the expenditures under SSV.
- Every user can put forward their personal dream causes, earn "little safflower" tokens through philanthropic actions and donate them to support social causes of their interest, while monitoring project progress at the same time
- From 2022, relevant projects in this field have been integrated into various product business lines as basic capabilities, and will no longer be categorised under SSV.

Research in Basic Sciences

New Cornerstone Investigator Programme: Committed to provide RMB10 billion of research funding over the next 10 years to 200 to 300 outstanding scientists periodically to support their research efforts in frontier or innovative research areas. Launched in 2022, the first cohort of 58 elite scientists received funding from the Programme.

Rural Revitalisation

The "Cultivator" Programme: Provided offline trainings to 23,000 people, and popularised the use of digital tools for rural governance, covering 3,500 villages.

Philanthropy Platform

99 Giving Day: Launched under the "One Flower, One Dream" mechanism, an interactive charity platform<sup>2</sup> tailored for public cause campaigns, approximately 107 million "little safflower" tokens were donated during the 99 Giving Day activity period of 2022.

Carbon Neutrality

**Carbon Inclusive App Development:** 

Launched a simulation game Carbon Island for public education purposes and a Weixin Mini Program Blue Planet, an inclusive carbon platform on which the carbon credits generated by Shenzhen residents were first traded. Please refer to the "Environmental Protection – Contribute to a Low Carbon Development" chapter for more details.

Primary Healthcare

Red Umbrella Programme: Improves health and quality of life for women and children in Central-western China through early diagnosis and treatment of congenital heart disease and hearing impairment in newborns. The first pilot cohort of the programme covered 24 testing centres in two cities of Ningxia, with a screening rate of more than 95%.

Education Innovation

Penguin Teaching: Built a digital aid education platform, which is currently utilised by 25 charity organisation partners, 350 schools nationwide, and 3,371 volunteer teachers to deliver online-to-offline teaching.

Future Scientist Programme: 20 groups of outstanding secondary school students received personal guidance from 24 renowned scientists to deepen their scientific interest, and improve leadership skills.

Assist with Public Emergencies

Tencent Emergency Response Platform: Created an open platform for public emergency response with approximately 10,000 AEDs (Automated External Defibrillator) connected, and nearly 50 pilot implementations in schools, residential and commercial areas; and enabled hearing-impaired users in 48 cities to use TTY (teletypewriter) telephone calls for 120 emergency services.

Gerontechnology

The Invisible Caregiver: The smart home guardian system called the "Invisible Caregiver" was officially upgraded and launched to a homecompatible version, which was adopted by more than 1,000 elderly households.

Barrier-free Technology<sup>3</sup>

Inclusive Text Input Methods: Assistive technology solution with eyeball tracking and voice recognition that enable hearing and visually impaired persons to communicate using smart devices; published an industry-first whitepaper on the topic of "enhancing IT accessibility for people with disability through assistive technology". Please refer to the "Beneficial Technologies – Bridge the Digital Divide" chapter for more details.

Digitisation of Culture

Digital Great Wall: The world's first example of the largest-scale digital restoration of cultural heritage with millimetre-level precision and immersive interaction through cloud game technology.

# Research in Basic Sciences

Tencent provides long-term support to scientists in freely exploring ideas and seeking substantiating evidence for unsolved scientific mysteries, with the goal of achieving breakthrough for the benefit of humanity through cutting-edge scientific research.

# **Xplorer Prize**

In 2018, the Xplorer Prize was established by Tencent, based on the principle of "facing the future, rewarding potentials." and encouraging exploration", supporting young scientists in exploring the uncharted territories of science. By 2022, the first three cohorts of awarded young scientists have produced notable works that have received more than 100 awards. including the Tu Youyou Prize for medical sciences, the Chevalley Prize for mathematics, and the Eugene Mittelmann Achievement Award for industrial electronics, and other internationally recognised awards.

In 2022, the Xplorer Prize added "medical sciences" to its preexisting nine core areas to encourage research in topics that tackle fundamental questions in the field of medical sciences concerning people's life and health. This year, winners of Xplorer Prize come from 35 different institutions across 18 cities and regions, representing an increasingly diverse geographical, institutional and individual talent profile.

By the end of 2022, the Xplorer Prize has supported a total of 200 outstanding young scientists. Each winner will receive a research grant of RMB3 million over a five-year period.

- For young scientists dedicated to research in basic sciences and frontier applications
- Use of awarded funds is at the discretion of the winner, who is also eligible to apply for the New Cornerstone Investigator Programme
- Funding support for ten key scientific disciplines<sup>1</sup>

#### Scientific disciplines covered by Xplorer Prize include mathematics and physics, advanced chemistry, astronomy and geosciences, life sciences, medical sciences, advanced electronics, clean energy, advanced manufacturing, transportation and architecture and interdisciplinary

# **New Cornerstone Investigator Programme**

Tencent launched the New Cornerstone Investigator Programme in 2022, with commitment to provide RMB10 billion of research grants to distinguished scientists over a ten-year period. The programme aims to provide long-term, stable and flexible funding support for outstanding scientists dedicated to achieving "0 to 1" breakthroughs, and encourage them to think adventurously and pursue original research in unchartered territories. We adopt a "people, not projects" approach during the selection process and provide generous support with no specific requirement on research topics, number of published papers, or deadline for delivering results.

- Focused on supporting scientists dedicated to research in basic sciences
- The funding is earmarked for research purposes, and winners may not apply for Xplorer Prize
- Funding support for two key fields: (i) mathematics and physical sciences; and (ii) biology and medical sciences

新基石研究员项目

**INVESTIGAT** COGRAM

Programme attracted 991 applicants, of which 759 were independent applicants. The Scientific Evaluation Committee invited world-class scientists to conduct multiple rounds of evaluation on approximately one thousand applications. It is based on the principle of "rather lack than excess" and three criteria - originality, significance, and breakthrough potential - to identify the applicants with the boldest ideas via a fair and objective process. At the same time, we put in place strict recusal mechanism to prevent conflict of interest, under the supervision of the Supervisory Committee. After thorough reviews by our judges, 58 scientists were selected for the programme, of whom 30 are in the field of mathematics and physics, and 28 in biology and medical sciences.

While there are large corporations and wealthy individuals in China that provide financial supports to scientific research projects in the past, none has come nearly as far as New Cornerstone Investigator Programme, in terms of both scale and breadth. By putting funding decisions in the hands of our nation's top scientists from diverse disciplines, to support the cutting-edge research by the best scientists of our generation, this programme is a truly first-of-its-kind, remarkable achievement.

#### - Shi Yigong

Member of the Chinese Academy of Science (CAS), President of Westlake University. Chair of Scientific Evaluation Committee of the New Cornerstone Investigator Programme

# In 2022, the first cohort of the New Cornerstone Investigator

## **Promote Exchanges in Frontier** Scientific Research

Tencent has been hosting the annual Way to Evolve (WE) Summit since 2013. Over the past decade, more than 80 top scientists from around the world have shared their latest scientific discoveries, promoting the spirit of open sharing and scientific exploration. In 2022, the WE Summit invited distinguished scientists who have devoted lifelong passion in frontier research, ranging from astrophysics, life sciences, to deep-sea research and other topics. The line-up includes Nobel laureates John C. Mather and Tomas Robert Lindahl, as well as renowned scientists including Li Jiangang and Ye Cong.

Since 2021, Tencent has been hosting the annual "Young Scientists 50<sup>2</sup> Forum", a platform that promotes crossborder exchanges of innovative achievements among young scientists. The theme in 2022 was "Focus on Originality and Break Boundaries", encouraging young scientists to cut across disciplinary boundaries, advocate cross-border integration, and accelerate innovation.

# Rural Revitalisation

Tencent is leveraging its digital prowess to support on-going improvement in rural governance, modernisation of agricultural sector, and training for professional and vocational talents in rural governance and agricultural business management, with the vision to promote the digitalisation of agriculture and sustainable development in rural areas.

## **The "Cultivator" Programme**

Tencent has earmarked RMB500 million of funding support to kick-start the "Cultivator" programme to train talents with skill sets in rural governance and modern agriculture. The programme aims to provide free trainings for 1 million people online and 100,000 people offline, guided by the concept of "train a person, drive a village", and is endorsed by the Ministry of Agriculture and Rural Affairs (MARA) of China for nationwide implementation. By end of 2022, the project has been rolled out in 28 provinces, municipalities and autonomous regions, with more than 23,000 people having attended trainings offline; and the Cultivator learning platform has delivered online trainings to more than 150,000 people with an interest in rural revitalisation.

In addition to organising and receiving training, Tencent's "Cultivator" team has helped an increasing number of village officials and villagers automate administrative tasks through digital tools.



Developed a "point-based system" that tracks performance of rural governance – the "Village Affairs Management Platform" and "Yue Zhi Mei" have been widely used in more than 3,500 villages across 29 provinces, municipalities and autonomous regions, covering more than 970,000 villagers.



 Launched an Al-powered crop protection tool, which enables fast and accurate recognition of crop diseases and pests, thereby helping prevent crop yield reduction and pesticide over use.



Established a knowledge-sharing platform for Cultivators to share rural revitalisation policies, agricultural business management, farming techniques and offline educational resources, and a "FAQs on Rural Revitalisation" channel to facilitate communication and knowledge exchange among more than 600,000 grassroot leaders.

## **Rural CEO Programme**

In search for solutions to address rural managerial talent scarcity in underdeveloped rural areas, Tencent collaborated with China Agricultural University to launch the Rural CEO Programme, a structured 9-month course that combines classroom teaching, hands-on practicum and on-the-job training, with a first cohort of 55 participants from 10 provinces and 20 prefecture-level cities across China, of which 46 have completed the programme. We also developed a streamlined process for the placement of Rural CEO talents who participated in the programme, and provide them with subsequent team building support, from recruiting to on-job training for employees, developing a normative system for cultivation process of Rural CEO talents.

In our pilot project in Hejiayan Village, Youyang County, Chongqing City, we helped our Rural CEO alumni build a team, who successfully adapted Tencent's open-platform digital tools, including Weixin Official Accounts, Weixin Video Accounts and WeCom, for the development of rural tourism. Given this successful proof of concept, we have implemented other similar pilots in 12 villages across the Yunnan and Guangxi provinces.

# Philanthropy Platform

Tencent operates our self-developed online donation platform to assist philanthropy organisations in reaching out to hundreds of millions of users in China, facilitating matching and donation across a number of projects. We seek to expand the synergistic outcome via collaboration and use digital technologies to enhance transparency, openness and efficiency in the public philanthropic sector.

# **Tech-driven Partnership**

Tencent created a tech philanthropy platform with the goal to empower charity organisations in finding innovative solutions for social problems and ensure their long-term sustainability to serve society.

Leveraging our technical, financial and human resources, Tencent supports charity organisations in improving their operational efficiency and processes, helping them scale and promote successful pilots with proven concept. We launched the "Tencent Tech-driven Social Venture" programme, with seven focus areas including rural revitalisation, care for underserved groups, emergency and disaster relief, ecological protection, cultural preservation, youth development and volunteerism. In addition, we provide charity organisations with a free digital toolkit and pro-bono consulting services to help them take advantage of the convenience of technology, and implement a more efficient charity operating model.

# **Innovative Philanthropy**

In 2022, we were the first to call on charity organisations to convene "donor general meetings", inviting donors to participate through Tencent Meeting or Weixin Video Accounts, to understand the project progress and the use of donated funds. In 2022, we held 118 donor general meetings, with total online views of 37.3 million.

On the "99 Giving Day" of 2022, Tencent launched a new interactive feature tailored for public cause campaigns called "One Flower, One Dream", where users can donate "Little Safflower" tokens collected from certain charitable activities to designated causes, including "free museum tours for 1,000 children from rural communities" and "free hearing screening test for 10,000 elderly people in rural communities". We carefully selected the right charity organisations to be the executing agencies for these projects, and provided regular feedback to donors regarding their progress. Tencent employees also contributed to this initiative by leading the charity campaign to "support 1,000 outstanding high school students from underprivileged background" and donated "little safflower" tokens to education causes.

We continue to upgrade our philanthropy models and expand our philanthropic influence, building on our initial success with "99 Giving Day."

- Based on different timing and location, organised multiple "Little Safflower Day" events to enhance public awareness for a variety of charity-related topics;
- Leverage Tencent's digital capability to promote locationtargeted philanthropic campaigns to link public sentiments with certain regions, allowing the public to participate in charitable activities in their hometowns with more personal reasons, clearer goals, and smoother channels.

## **Volunteer Work**

Since April 2012, our employees have been granted one full day of paid leave per year to participate in volunteering activities. Additionally, a new matching donation programme took effect on January 1, 2022, where for every donation our employee makes, Tencent will match for the same amount. For every hour of volunteering work our employee serves, Tencent will donate RMB100 correspondingly. In 2022, Tencent made matching donation of over RMB4.2 million for nearly 10,000 employees.

In 2022, Tencent Volunteers Association organised various charitable activities, with a focus on serving underserved groups. We developed courses on the topic of youth protection and development, and provided pro-bono coaching for contestants of the National Youth Programming and Artificial Intelligence Programme. As for the silver generation, we hosted community-based "Silver Hair Guardian" training workshops for caretakers, and provided free hearing screening test offered by the Gerontechnology Lab for the elderly. In addition, we established a unique "Little Safflower Emergency Response Squad" to provide technical support for charity organisations engaged in emergency response; employees may participate in volunteering activities on tech philanthropic platform, and capable staff may serve as advisor for participants of our Rural CEO Programme.



During the 99 Giving Day activity period of 2022

Total participants exceeded

00 million

of public donation received

of "little safflower" tokens were donated

RMB 3.3 billion 58.16 million

Volunteer activity counts:

Volunteer participant counts:

6.588

Total hours of volunteering activities:

36,879 hours

# Assist with Public Emergencies

We utilise our strength to create an open platform for emergency response, and establish a socialised mutual aid network for different emergency scenarios through the popularisation of first aid knowledge, coverage of emergency equipment, volunteer mobilisation, and improvement of dispatching capabilities. In addition, we provide long-term systematic support for the cultivation of public health.

## **Enable Grassroot Response**

Tencent leverages its own technical capabilities to build an open platform that enables effective matching of supplies and human resources to where first aid resources are needed the

Tencent's open emergency response platform connects help seekers, volunteers, and emergency equipments. The platform enables first-aiders to quickly identify the caller's location and respond in real-time through access management of basic information, application development and visual presentation. Tencent's Emergency Response Platform is able to connect first aider to the nearest automated external defibrillator (AED), allowing lives to be saved within the international standard of four minutes in the incident of a heart cardiac arrest, which is one of the most critical emergency response scenarios. In 2022. Tencent and Red Cross Society of China jointly developed public health emergency response system, Red Cross Ji Jiu Bao. In addition, we are actively pushing for the piloting and implementation of Tencent's emergency response capability in more scenarios.

Tencent established "A Practical Guide to Emergency Response", a Tencent Docs online depositary of educational resources on first aid and emergency response. The online resources cover a full range of scenarios from at-home, outdoor, on-campus, which can be readily accessed and shared by our extensive network of users, helping users master emergency responses and self-help skills. Launched in 2018, Tencent's "WeLight" initiative offers online mental health consulting and clinical guidance for individuals suffering from depression. This has helped users to better identify signs or symptoms of a mental health issue, recognise and respond appropriately to mental health issues. By further expanding the online help-seeking channels, we extended the helping network to people suffering from depression or at risk of suicidal thoughts and attempts.



#### Campus

Together with the Chinese Red Cross Foundation, Tencent has donated 1,649 all-in-one first aid kits to various schools and universities in Beijing; and in partnership with the China Education Development Foundation, Tencent kicked off the "Student Health Programme - Campus Emergency Response Capacity Building Project", which has been implemented in Nanjing University, Beijing Normal University, Jinan University, Shenzhen University and other tertiary education institutions.

#### Community

Tencent assisted the city of Zhengzhou in building a community-centric emergency response system, enabling interaction and resource-sharing between "120" public emergency system and volunteer first aiders, in particular a senior-friendly "one-click" emergency call function that enables community-based mutual aid and rapid response from the helpers; in Shenzhen, the emergency response open platform has connected more than 7,000 AEDs.

#### Commercial district

Tencent is cooperating a large commercial and office complex in Shenzhen to implement a comprehensive districtwide emergency response system that covers emergency system deployment, volunteer trainings, awareness campaign and public education.

# **Public Health Responses**

In 2022, Tencent launched the "Public Health Talent Drive" initiative and donated RMB100 million to provide long-term systematic training and career development support for public health workers, including disease control experts, young professionals, frontline clinician, administrative staff, and rural doctors, enhancing public health research and practical capabilities. Most notably, the "Rural Doctor Capacity Building" Programme" aims at improving theoretical knowledge and practical skills of rural doctors, and increasing examination pass rate of assistant physicians' qualification examination in rural areas. In the inaugural cohort of the Programme, a total of 48 online live training sessions were held, with more than 30.000 rural doctors from across 12 provinces having participated in the online training; an additional 250 rural doctors (out of five cohorts) from three provinces have participated in the offline practical training and theory sessions.

At the end of 2022, the sudden outbreak of COVID-19 caused an acute shortage of non-prescriptive drugs. Tencent quickly responded and developed a peer sharing Weixin Mini Program called Public Charity and Mutual Aid to Fight against the COVID-19, connecting those who were in urgent needs for drugs to those with unused stock. At the same time, we have put in place a verification mechanism and privacy setting to help ensure drug safety and that the personal information of users are protected.

From December 2022 to January 2023, Tencent actively contributed to anti-pandemic initiatives in rural areas and donated RMB150 million to 19,778 senior nursing homes in 160 counties across 30 provinces. Among them, RMB100 million is earmarked for oxygen concentrators destined for rural nursing homes, and RMB50 million for antipyretics. cough medicine, disinfectant and online consultation for key impacted areas; and 458 Tencent volunteers participated in supporting the anti-pandemic capacity building of rural nursing homes. Also, Tencent has distributed 30,000 "COVIDresponse kits" across the country, in particular Ningxia, Jilin and Guizhou, and provided medical aids to more than 20,000 in-need families through cooperating with various local charity and pharmacy partners. In addition to large-scale assistance to rural areas across the country, we had 1,044 volunteers who returned to their hometowns with the "Little Safflower Spring Festival anti-pandemic Pack" to monitor blood oxygen and distribute anti-pandemic materials to the villagers; and nearly 200 Tencent volunteers participated in blood donation to alleviate the emergency situation of the blood bank.





# Gerontechnology

Tencent strives to solve the challenges of an aging population through the innovative use of technology. We continue to improve barrier-free technologies so that seniors can adapt easily to the digital world. We launched elderly-oriented modes and barrier-free features, enhanced anti-fraud function and set up an elderly-centric service hotline. We also seek to safeguard the physical health and cybersecurity of our elderly users through our product and technical capabilities.

## **Health and Safety**

To minimise health impact on seniors from accidental falls, especially for those who live alone, Tencent has launched a smart home guardian system called the "Invisible Caregiver". Powered by cloud computing and IoT (Internet of Things) technology, it is capable of recognising the occurrence of such accidents and issuing automatic alerts to caretakers to provide timely follow-up assistance. We continue to upgrade the product to Multimodal Recognition Mode, such that it can understand and automatically respond to seniors' calling for help through the capturing of key words, with its better security monitoring and protection functions, safeguarding the health and safety of seniors. As of the end of 2022, the "Invisible Caregiver" system has been deployed in Shenzhen Pension Nursing Hospital for three years, and the household version of "Invisible Caregiver" has been adopted by more than 1,000 elderly households.

To raise public awareness of Alzheimer's disease that plagues more than 15 million elderly people in China, we launched a Weixin Mini Program called Silver Brain Power that educates users on topics related to Alzheimer's disease to help people better understand its implication. The Weixin Mini Program also provides cognitive test questionnaires that help them better understand the risk of diagnosis for themselves, as well as loved ones. Tencent also launched a Weixin Mini Program called Silver Hearing Health, China's first integrated hearing-centric product that combines diagnostic hearing test for elderly, knowledge sharing on hearing health, and hearing impairment simulation tool to promote understanding and empathy among people with normal hearing capability. In addition, we initiated the "Ginkgo Friendship Programme" with our partners, which seeks to enhance health and wellness for seniors through conducting early hearing and cognitive test, promoting volunteering service and organising charity drive for seniors.

## **Cybersecurity**

Given the general weak awareness and ability around antifraud and cybersecurity among senior and middle-aged users, Tencent released the first version of the Weixin Mini Program called Silver Generation Assistant to address these challenges, through the "online services + safety reminders + knowledge learning" approach. In 2022, we undertook the first National Elderly User Anti-Fraud Knowledge Contest to strengthen risk prevention awareness of elderly users through online trivia games, and worked with charity organisations to launch offline "Silver Hair Guardian" courses to enhance elderly users' ability to recognise and prevent cyber fraud.



# Digitisation of Culture

Using digital tools to help preserve cultural heritage has always been a subject of interest for Tencent. We continue to innovate and explore digital heritage preservation and cultural heritage, and enrich the manifestations of cultural heritage.

### **Preserve Cultural Heritage**

### **Digital Central Axis**

To support the City of Beijing's quest for the Central Axis of Beijing to become a UNESCO World Heritage Site, Tencent has cooperated with the Cultural Relics Bureau of Beijing to launch the "Digital Central Axis" project, which is comprised of a digital twin of the Central Axis built using Tencent's highresolution game graphic modelling technique, along with a virtual museum and a cultural heritage index system. We created "Beijing Swifts", the digital mascot for the Central Axis' UNESCO application, and released an NFT (non-fungible token) collection of the Chinese character "中" written by more than 10,000 people to explore innovative ways to revitalise and preserve cultural heritage.

### **Root-Finding Project**

To explore innovative ways to preserve and revitalise cultural heritage, Tencent launched the "Root-Finding Project" with other research institution partners. The project aims to utilise novel "Frontier Technology + Cultural Heritage" approach to solicit innovative cases, application scenarios and solutions with industry foresight and social value; it also selected the Top 10 "Root-Finding" cases to promote multi-subject sharing, setting a new trend in cultural heritage protection and revitalisation.

### **Digital Great Wall**

The "Digital Great Wall" is the world's first attempt by Tencent in using cloud game technology to achieve millimetre-level digital restoration of a large-scale cultural heritage site. creating an immersive interactive experience for the audience. Users can play a virtual visit to the remote Xifengkou West Panjiakou section of the Great Wall from their mobile devices, and play with interactive functions including "Climb the Great Wall" and "Repair the Great Wall" online. At the same time, we allow users to contribute to cultural heritage preservation through participating in trivia games and donating "little safflower" tokens to the project. Please refer to the "Beneficial Technologies - Promote an Enriched Digital Life" chapter for more details.

### **Museum Curators Speak**

To promote knowledge and interest in Chinese traditional culture, Tencent organised a first-of-its-kind video streaming event under the theme of "Museum Curators Speak", where about 50 museum curators introduced more than 300 artifacts and its historical backgrounds on Weixin. In addition, we launched a dedicated live streaming program "Cultural Relics and Museums Exploration" under "A Quarter Past Eight", an education-focused channel on Weixin Video Accounts. to spread historical and cultural knowledge in novel live broadcast method.

### **Empower Archaeological** Research

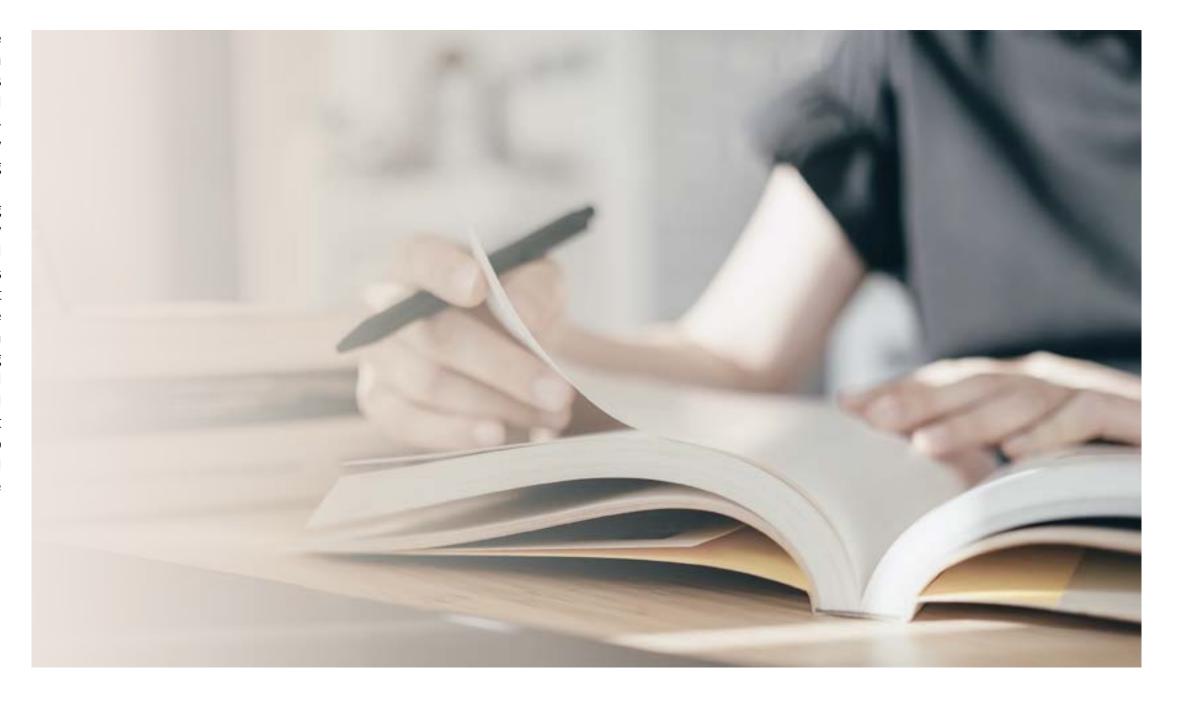
In 2022, Tencent collaborated with the Sichuan Provincial Bureau of Cultural Relics to assist archaeologists' excavation and research work at the ancient site of Sanxingdui by developing digital tools and an archaeological database. As the excavation work at the ancient site progresses, we help Sanxingdui Museum present the latest exciting discoveries to the public in an interactive and educative way by leveraging Tencent's digital and creative capabilities. For example, an interactive H5 mobile webpage called "Discover the Artifacts of Ancient Shu", allows users to experience the rich ancient culture of Shu and gain virtual live access to the excavation site of Sanxingdui.





# Our Approach

We are committed to building a sustainable business ecosystem with our partners. Based on our "Prevention First" approach, Tencent has continuously improved its risk prevention and management protocol in the areas of anti-fraud, antimonopoly and anti-money laundering by constantly perfecting its organisational structure, implementing management policies, optimising processes, refining guidelines, and promoting training. During the process of promoting sustainable supply chain management, we ensure compliance and incorporate sustainability-related requirements through continuously improving our management systems and processes. In 2022, we formulated the Environmental Protection Management Policy, which stipulates requirements for suppliers regarding environmental permits, energy conservation and decarbonisation measures. We have also developed internal guidelines for prioritising green procurement principles. Furthermore, we require suppliers to strictly abide by all local laws and regulations, and encourage them to adopt ESG standards to enhance their capabilities to reach sustainability.



# Adhere to Integrity Behaviour

Tencent's value of integrity is reflected in its zero-tolerance approach to fraud and has made it a non-negotiable principle that must be upheld in our operations. We strictly comply with the requirements of the Criminal Law of PRC, the Anti-unfair Competition Law of the PRC and other legal regulations, and view anti-fraud management as an important component of the Company's culture and values. Tencent has set up an Anti-Fraud Investigation Department and formulated the *Tencent Sunshine Code of Conduct* (the "Sunshine Code") to monitor, prevent and take actions on suspected fraudulent behaviours. The Anti-Fraud Investigation Department reports directly to the Audit Committee and the Internal Audit Committee, and operates with a high degree of independence.

### **Sunshine Code of Conduct**

The Sunshine Code clarifies the handling process pertaining to the six "Red Line" behaviours, including fraudulent conduct, commercial bribery, information leakage, improper competition, conflicts of interest and other violations of laws and regulations. Promoting integrity and opposing corruption as well as other fraudulent behaviours has ensured a strong alignment between our corporate culture and actions of our employees. All Tencent employees must strictly abide by the Sunshine Code and complete required learnings.

Tencent conducts an annual review of its anti-fraud policy and makes necessary revisions based on any updates of laws and regulations, business conditions and results from risk assessments. In 2022, the Sunshine Code was amended for the tenth time, with updates being primarily made on the handling of violation.

Sunshine Code of Conduct - Tencent

## **Integrity Awareness**

Tencent takes ethics training seriously and is committed to instilling "integrity" in every employee's mind. We conduct annual anti-fraud education to promote employees' integrity awareness through video campaigns, graphic promotions, cultural activities, online courses and face-to-face training to emphasise the importance of anti-fraud and anti-corruption.

- All executive directors and members of Audit Committee received training on the Sunshine Code through online training courses, Audit Committee Meetings, Internal Audit Committee Meetings and other internal meetings, to learn about the Company's antifraud policies.
- Required all employees (including employees, interns and consultants) to take the Sunshine Code compulsory training and exam, achieving 100% in participation rate.
- Conducted 53 anti-fraud training sessions for more than 6,500 employees in sensitive positions from various business groups.
- Created over 10 promotional videos and over 20 articles on the topic of anti-fraud.
- Organised numerous online and offline events on the topic of antifraud, with a cumulative participating staff count of more than 15,000.
- Conducted "Sunshine Tencent Perception Survey" to assess employees' understanding on the anti-fraud policy and consequences of violation, behavioural tendencies and feedback on the Company's efforts to build a culture of anti-fraud.

## **Anti-Fraud Investigation and Management**

To improve our anti-fraud management and identify fraud risks effectively, we identify evidence of fraud through internal and external whistleblowing, reports from Internal Audit and Internal Control, and other departments. The independent investigations have been conducted by the Anti-Fraud Investigation Department.

Tencent has established *Anti-Fraud Whistleblowing Policy* with multiple whistleblowing channels, which include email, mailbox, hotlines and Weixin Official Account tencentsunshine. Tencent encourages all employees, suppliers and other business partners to report any corruption or fraud cases where Tencent employees may be potentially involved.

Anonymous reports are also accepted. We encourage informants to leave their contact information so that effective follow-up investigations could be conducted and to provide them with updates if necessary. Reports will be handled in a serious manner and with the highest level of confidentiality.

### **Whistleblowing Channels**

- Email Address: jubao@tencent.com
- Telephone: +86-755-86013470 (voicemail)
- Mailing Address: Tencent Binhai Towers, No. 33 Haitian 2nd
   Road, Nanshan District, Shenzhen, Guangdong Province, PRC
- Weixin Official Account: Tencent Sunshine (tencentsunshine)

We have established an internal anti-fraud consulting channel to respond to employee inquiries concerning our anti-fraud system and compliance regarding personal conduct.

In 2022, we strengthened our capability in detecting fraud through the use of big data technology to screen for common types of cases and identify fraud clues. Business departments were required to implement rectification plans accordingly to prevent fraudulent cases from occurring.

- We published the Tencent Anti-Fraud Announcement on an annual basis. In 2022, the Anti-Fraud Investigation Department detected and handled more than 70 cases in violation of "Red Line", resulting in the dismissal of over 100 people.
- During the reporting period, Tencent received the results of six corruption-related criminal cases that were referred by us to relevant government authorities in accordance with the law (including cases referred in previous years).

For job positions with high-risk duties, Tencent has formulated the *Management Policy for Sensitive Positions* to mitigate risks through regular staff rotation, separation of duties and specialised training for employees in key sensitive positions. At the same time, our Internal Audit Department reserves the right to audit all sensitive personnel positions and may conduct audits on current or former personnel in sensitive positions at any time.

Going forward, we will continue to optimise the preventive management of anti-fraud, strengthen ethics training, refine management standards, and foster an integrity culture of selfcompliance.

# Promote Fair Competition

Tencent is committed to operating in accordance with relevant legal and compliance policies in its operations, respects local laws on anti-monopoly and fair competition in regions where we operate, continuously improves the Company's compliance management, and works with other market players to maintain a fair and competitive market environment.

We have established an Anti-Monopoly Compliance Department (AMCD) that directly reports to the senior management on regular basis. The AMCD is mainly responsible for providing anti-monopoly regulatory compliance advice on daily business operation, improving the compliance management system, strengthening scenario-based compliance guidance, establishing the compliance mechanism that covers the entire business process, and conducting compliance-related training.

## **Strengthen Policies and Guidelines**

Tencent attaches great importance to enhancing compliance management related to anti-monopoly regulatory requirements, and have formulated and issued a number of internal policies and guideline documents related to anti-monopoly law compliance. With regular updates in policies, coupled with adequate training and awareness promotion activities, Tencent actively engages with all employees to help them understand and comply with the principles of fair competition while running our day-to-day operations and provides guidelines for the legal and compliant conduct of business activities.

The year of 2022 was an important year for anti-monopoly law compliance in China. The Anti-Monopoly Law of the PRC was amended for the first time since its implementation in 2008. As one of the first companies in the tech industry to establish a specialised Anti-Monopoly Compliance Department, Tencent studies in depth and follows closely the latest regulatory requirements. In 2022, we established and optimised our anti-monopoly compliance system from the overall Group level to each specific business group level through updating our policies and guidelines, and continuously enhanced our compliance management ability.

- Formulated Tencent Group Anti-Monopoly Compliance Process Management Policy and set up the Group's antimonopoly compliance management mechanism, including clarifying the responsibilities of different departments in the process of compliance management, improving compliance risk assessment process, and strengthening internal audit capability.
- Updated the Tencent Group Anti-Monopoly Compliance Guidelines in accordance with the newly revised Anti-Monopoly Law of the PRC; introduced, interpreted and promoted requirements of the newly revised Anti-Monopoly Law of the PRC, formulated compliance and behavioral guidelines accordingly; and issued training and policy interpretation for all employees regarding the new version of the Guidelines.
- Formulated Anti-Monopoly Compliance Guidelines (including relevant merger filling requirements, merger control process, and consequence of gum-jumping) for investment and M&A to ensure strict implementation of latest requirements of the Anti-Monopoly Law of the PRC.
- Customised scenario-based anti-monopoly compliance manuals with specific scenarios for key business lines and product groups to provide more practical and targeted guidance by taking into account characteristics of different business scenarios.

Tencent Music Entertainment Group adopts and upgrades competition compliance policies and programs, and establishes non-exclusive cooperation with upstream copyright owners, to make sure commercial behaviours are in compliance with anti-monopoly laws and relevant regulations.

## **Refine Compliance Mechanism**

In addition to improving our compliance management system, we also continue to optimise our compliance management mechanism by improving our process management and clarifying responsibilities of various departments and business groups. Our compliance processes and management mechanisms cover the entire business process and product lifecycle, and we adopt the Appraise-Control-Do (ACD) mechanism to promote effective compliance management.

We regularly conduct compliance related studies and provide compliance guidance and interpretation regarding latest domestic or foreign laws and policies, high-profile cases and incidents.

## **Foster Compliance Culture**

We emphasise on raising awareness on fair competition by carrying out internal awareness campaign, and regular antimonopoly compliance training.

In 2022, we have conducted more than 30 anti-monopoly compliance trainings programmes, which include introductions on prohibited behaviours under Anti-monopoly Laws of PRC, compliance guidelines for business operation, anti-monopoly notification and review process for M&A transactions, and typical anti-monopoly case studies.

In addition, we have conducted multi-channel awareness campaigns through knowledge contests, video tutorials, posters and other forms of promotion, to attract employees' attention towards anti-monopoly compliance.

### A – Appraise

- Conduct compliance risk assessment on daily operations;
- Conduct pre-appraisal for antimonopoly risk prior to business cooperation with different subjects;
- Establish anti-monopoly compliance mechanism covering the whole investment and M&A process.

### C – Control

 Put in place compliance risk mechanism, including alerts and suggested measures for identified risk item.

### D - Do

- Follow up on the implementation of recommended compliance measures;
- Implement anti-monopoly related declaration requirements for relevant M&A transactions.

# Anti-Money Laundering

Tencent takes a risk-based approach in enhancing Anti-Money Laundering (AML) and sanctions compliance management to respond to the ever-evolving environment. Tencent strictly complies with all applicable AML and counter-terrorist financing (CTF) laws in regions where we operate, and fully implements its domestic and foreign financing obligations. including the AML Law of the PRC and the Guidelines for Managing AML and CTF by Financial Institutions.

At the same time, Tencent closely follows latest development and interpretation of laws and regulations, conduct gap analysis and training for staff on the latest AML developments around the world. We also engage external consultants to effectively implement AML and CTF measures in compliance with regulatory requirements.

### Well-Established Structure

We have developed a comprehensive money laundering and sanctions risk governance model, comprised of a group level AML and Sanctions Management Committee, licensed financial institutions AML committees, as well as designated compliance officers.

### Responsibilities of Tencent's AML and Sanctions Management Committee

- Guide and supervise the Group's AML, CTF and sanctions compliance efforts and promote a culture of AML and sanctions compliance excellence;
- Authorise the formulation of the Group's AML, CTF and sanctions compliance strategies, policies and processes, and empower relevant departments and personnel to perform necessary duties;
- Review and approve significant AML, CTF and sanctions compliance-related decisions;
- Guide and supervise the work of AML. CTF and sanctions compliance of Tencent's subsidiaries;
- Provide strategic direction for the AML and Sanctions Compliance Department.

We have established an AML and Sanctions Compliance Department which is primarily responsible for coordinating and managing different business groups' AML and sanctions risks in different regions, fulfilling the regulatory requirements for AML and sanctions compliance; managing and following up on the implementation of AML and sanctions within the Group.

## **Refined Management Mechanism**

Tencent promptly responds to latest updates and developments in AML regulations, dynamically benchmarks itself against Chinese and international regulatory requirements, and regularly refine internal process to ensure compliance with relevant AML and sanctions requirements. We have published the Tencent Anti-Money Laundering Policy Statement and the Tencent Sanctions Policy Statement on our official website. We uphold the Tencent Group's Minimum Standards for Anti-Money Laundering and Sanctions Compliance and continually update and improve the AML system and processes of the Group and its licensed financial institution, thereby further strengthening the core foundation of Tencent's AML management.

In 2022, we conducted 23 AML-related training sessions for senior management, new hires, and employees from different departments and licensed financial institution, covering a wide range of topics, including basic knowledge of AML, interpretation of the latest regulatory policies, and AML compliance requirement.

## **Normalised and Systematic** Management

Tencent has promoted regular and ongoing AML and sanctions compliance management to be conducted in an orderly manner, meeting regulatory requirements while pursuing innovative practices for key areas, and continuously improving the management of AML and sanctions compliance.

- Anti-fraud research: Carry out anti-fraud awareness campaigns, enhance customers' understanding of fraud risks, promote fraud-related risk management, and ensure fund safety for customers.
- Wildlife protection: Established a whistleblowing channel on Weixin and QQ for users to report and help fight suspicious AML activities associated with illegal wildlife trading.
- Large and suspicious transaction: Deploy big data, machine learning, and other technology to monitor and enhance money laundering risk management for large and suspicious transactions.
- Offshore AML and sanctions compliance platform: Established an AML and sanctions compliance platform covering offshore regulated activities to enhance the Group's AML and sanctions management capabilities overseas.

# Sustainable Supply Chain

We have formulated the Tencent Supplier Management Policy to clarify the management standards for all suppliers, including qualification and review, selection and engagement, and performance evaluation.

We pay attention to the impact of suppliers on the environment and society, and integrate ESG concepts into our supplier management. Based on the Responsible Business Alliance (RBA) Code of Conduct, we discuss with suppliers the basic tenets of ESG for operations, including labour rights protection, safeguarding occupational health and safety, environmental protection, ethical management, and other areas. We encourage suppliers to adopt internationally or industry-recognised best practices to strengthen ESG management and enhance self-improvement capabilities.

## Qualification and Review

During the supplier selection process, we assess whether suppliers possess the valid qualifications or required service capabilities. We also take into account suppliers' track record and their performance in terms of business ethics, environment and social responsibility, etc. We require relevant departments to strengthen the verification of supplier compliance during the qualification process to avoid admitting blacklisted suppliers. In addition, we strengthen supplier qualification and reviewing management through regular upkeep of supplier information database.

- We require suppliers to sign the Anti-Commercial Bribery Declaration which clarifies Tencent's requirements for supplier ethics management.
- We formulated the Guidelines for Supplier Blacklist Management, which clearly states that suppliers will be terminated and blacklisted, in case of violation related to commercial bribery and conflicts of interest.

In 2022, the number of suppliers by geographic region

The Mainland of China Hong Kong, Macao, and Taiwan 28,905 1,947

Other countries and regions 6,241

### **Selection and Engagement**

During the supplier selection and engagement stage, differentiated selection methods are determined based on different business and product types. We seek to ensure fair competition among suppliers and that our risk control process follows the due procedure; we also clearly define "employee-related suppliers", for which certain management protocol is followed.

- During the qualification stage of supplier selection, we evaluate for potential conflicts of interest. The awarding of contracts to suppliers with related interest to Tencent employees must comply with the Sunshine Code. Suppliers with related interests to current or former employees of Tencent must declare as such accordingly, and those who fail to truthfully declare related interests will be immediately terminated and blacklisted.
- Regarding green procurement, the Environmental Protection Management Policy clearly sets out the requirements for suppliers to obtain environmental permits, conserve energy and reduce carbon emission; the degree of environmental friendliness will also count as bonus points towards the suppliers' evaluation.
- We include the Corporate Social Responsibility Commitment in our supplier contracts to clearly convey Tencent's commitment to exercising social responsibility business ethics in supply chain management, including environmental protection, labour rights protection, and workplace health and safety.

### **Performance Evaluation**

In accordance with the Tencent Supplier Management Policy, the Company's supplier management department must conduct evaluation work at least once every six months, in order to strengthen the regular management of suppliers. We evaluate suppliers from the angle of product quality, service capability, and track record of partnership and deliverables, to wholistically assess their comprehensive performance.

Tencent regularly reviews supplier's performance, whose assessment records are maintained and shared through the Company's supplier management system to assist relevant departments in strengthening supplier management. We adjust the performance ratings of suppliers according to the results of assessments. When suppliers are assessed to perform poorly, subject to compliance with applicable contractual arrangements, we may (a) discuss with them the necessary remedial measures; (b) reduce order volume; (c) terminate cooperation; (d) impose penalties; or (e) suspend payments. In addition, we established a coaching and exit mechanism for suppliers who consistently perform poorly in evaluations.

We work with suppliers to jointly promote energy conservation and carbon reduction. In 2022, we initiated GHG Scope 3 emission reduction projects with suppliers to assess the carbon reduction potential of procurement and downstream leasing, and to develop and implement emission reduction measures.

# Appendix

## **About This Report**

This report is prepared in accordance with the Hong Kong Stock Exchange's (HKEx) ESG Reporting Guide, while referencing the GRI Standards and the SASB Standards. It also references to HKEx's Guidance on Climate Disclosures with regards to climate-related disclosure in accordance with Task Force on Climate-Related Financial Disclosures (TCFD) recommendation.

PricewaterhouseCoopers has been commissioned by the Company to conduct a limited assurance on the selected ESG KPIs in accordance with the International Standard on Assurance Engagements – Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE) 3000 (Revised). For more details regarding the level, scope, assurance process and the complete assurance report, please refer to the "Assurance Report" in the Appendix.

For better presentation and readability, "the Company" refers to "Tencent Holdings Limited", and "the Group" refers to "the Company and its subsidiaries".

This report is prepared in alignment with the reporting principles of "materiality", "quantitative", "balance" and "consistency" with further details set out below.

### Materiality:

We have conducted a detailed materiality assessment to identify and evaluate key ESG issues that are most important to our business as well as our internal and external stakeholders. The information gathered from the materiality assessment was then used to determine the disclosure content of this report. For details of the materiality assessment, please refer to the "ESG Governance – ESG Materiality Assessment" section of this report.

### Quantitative:

We disclose measurable environmental and social KPIs and set quantitative performance targets where applicable. The measurement standards, methodologies, assumptions and/or calculation tools of the KPIs in this report, as well as the source of the conversion factors used, have been explained in the corresponding context (where applicable). During the process of identifying the scope of the ESG report, we ensure that it reflects our ESG impact and performance. Unless otherwise specified, the report covers the ESG performance of the business activities directly operated and managed by the Company during the reporting period from 1 January 2022 to 31 December 2022. In addition, this year we conducted research on the reporting scope, and performed an analysis of the consolidated companies based on the factors including operational control, local regulations and financial materiality. As a result, we included listed subsidiaries Tencent Music Entertainment Group and China Literature Limited in the reporting scope for the first time.

This report should be read together with Tencent's 2022 Annual Report, the "Corporate Governance Report" of the 2022 Annual Report, and the ESG page of our Company's official website.

Should you have any questions, please contact us at ESG@tencent.com

### Balance:

This report aims to provide a balanced representation of the Group's ESG efforts around the environment, our people, operating principles and practices, product responsibility and community.

### Consistency

This year's report has been prepared with the same method used in previous years. Changes that may affect a meaningful comparison with previous reports have been explained in the corresponding section

## **ESG Key Performance Tables**

### **Environmental Performance**

Indicators		As of 31 December 2022	As of 31 December 2021
Greenhouse gases	Total GHG emissions (Scopes 1, 2, 3) (tCO <sub>2</sub> e) <sup>12</sup>	5,739,723.7	5,871,780.7
	Total GHG emissions per unit of revenue (tCO <sub>2</sub> e/RMB million)	10.4	10.5
	Scope 1 emissions (tCO <sub>2</sub> e) <sup>3</sup>	172,137.9	18,797.8
	Scope 2 emissions (tCO <sub>2</sub> e) <sup>4</sup>	2,650,073.3	2,471,041.1
	Scope 3 emissions (tCO <sub>2</sub> e) <sup>5</sup>	2,917,512.5	3,381,941.8
Energy	Total energy consumption (MWh) <sup>6</sup>	5,046,045.1	4,452,650.1
	Total energy consumption per unit of revenue (MWh/RMB million) <sup>6</sup>	9.1	7.9
	Direct energy consumption (MWh)	35,054.9	66,293.4
	Gasoline (L)	44,623.7	34,160.0
	Diesel (L)	1,458,596.4	3,261,447.6
	Natural gas (m³)	1,867,442.0	3,111,654.3
	Indirect energy consumption (MWh) <sup>7</sup>	5,010,990.2	4,386,356.7
	Purchased electricity (MWh)	4,638,840.1	4,308,960.2
	Other indirect energy consumption (MWh) <sup>8</sup>	13,860.6	12,062.0
	Renewable energy purchased (MWh)	336,419.5	63,000.0
	On-site renewable energy (MWh)	21,870.0	2,334.5
	Percentage of renewable energy (%)	7.2	1.5
	Installed capacity of on-site renewable energy facility (MW)	19.6	_
	Average PUE in data centre <sup>9</sup>	1.298	1.317
Resources	Water consumption (tonnes) <sup>10</sup>	8,152,481.9	6,201,651.6
	Water consumption per unit of revenue (tonnes/RMB million) <sup>10</sup>	14.7	11.1
Waste	Hazardous waste (tonnes) <sup>11</sup>	1,051.0	323.7
	Hazardous waste per unit of revenue (kg/RMB million) <sup>11</sup>	1.9	0.6
	Non-hazardous waste (tonnes) <sup>12</sup>	33,062.4	29,849.9
	Non-hazardous waste per unit of revenue (kg/RMB million) <sup>12</sup>	59.6	53.3
	Reusing amount of electronic equipment (tonnes) <sup>13</sup>	2,740.6	_
	Recycling amount of electronic waste (tonnes) <sup>14</sup>	166.0	=
Green building	Green building certified office space (10,000 m²)	154	154
	Cumulative number of green and low-carbon related certificates received by data centres	25	22

### Note

- The material air emissions of the Company are GHG emissions, arising from fuels and purchased electricity produced from fossil fuels.
- Since 2022, GHG emissions has been calculated in accordance with GHG Protocol Corporate Standard, SBTi guidance for ICT companies and ISO 14064-1:2018. 2021 data has been restated retroactively. GHG emissions (Scope 1, 2, 3) have received verification by a third party.
- Since 2022, fugitive emissions (including fire extinguishers and methane) have been added into our Scope 1 calculation, which is in line with the requirements outlined in the SBTi guidance and can improve the completeness of emissions reporting. We didn't restate comparatives due to a lack of historical data. If we apply the 2021 reporting scope, our Scope 1 emissions for 2022 would be 9,711 tonnes.
- Since 2022, electricity emissions in China have been calculated using the latest National Grid Emission Factors published by the Chinese Ministry of Ecology and Environment. 2021 data has been restated to conform with the new emission factors.
- Since 2022, we have added two more categories "fuel and energy related activities" and "for downstream leased assets" into our Scope 3 emissions in order to comply with the SBTi guidance for ICT companies. Scope 3 emissions for 2022 covered 9 categories compared to 7 categories in 2021. 2021 data has been restated retroactively.
- Total energy consumption is calculated in reference to the coefficients in the National Standards of the PRC General Principles for Calculation of the Comprehensive Energy Consumption (GB/T 2589-2020). The increase in energy consumption was mainly due to more indirect energy consumption driven by higher utilisation rates in the data centres.
- The increase in indirect energy consumption was mainly driven by higher utilisation rate in the data centres. Renewable energy as a percentage of our indirect energy sources increased from 1.5% in 2021 to 7.2% in 2022.
- 8. Other indirect energy consumption includes purchased heat.

- To align with international industry best practices, we further expanded the coverage of PUE calculation to include all data centres within our operational control that have operated for more than 12 months across all levels of utilisation rates. For comparison purposes, if we apply the 2021 reporting scope, PUE for 2022 would be 1.290.
- Water supply mainly comes from the municipal water supply and there is no issue in sourcing water. The increase in water consumption was mainly driven by higher utilisation rates in data centres. In 2022, we strengthened the management of our water resources and improved the completeness of our data. We did not restate comparatives due to a lack of historical data.
- Hazardous wastes produced at office buildings mainly include waste toner cartridges and waste ink cartridges from our printers. Hazardous wastes produced by data centres mainly include waste lead-acid accumulators and destroyed hard drive components. The increase in hazardous wastes was mainly due to a surge in disposed lead-acid batteries, the life cycle of which is approximately five years. 100% of our hazardous wastes have been handed over to qualified third parties for proper disposal.
- Since 2022, we have added "food waste" into the "non-hazardous waste" to make our disclosure more complete. We didn't restate comparatives due to the lack of historical data. If we apply the 2021 reporting scope, our non-hazardous waste disposal in 2022 would be 26,912.9 tonnes.
- Reusing amount of electronic equipment includes used electronic equipment including old servers, computers, monitors, etc. We up-cycling used servers and other electronic equipment, their lifespans are extended and can be put back into operation.
- Recycling Resourcing amount of electronic waste includes hard drive crushing particles. Waste hard drives are degaussed, crushed and processed to produce resourceful hard drive crushing particles for recycling by qualified recycling institutions under the premise of ensuring information security
- Data regarding packaging materials are not applicable to the Company.

## **ESG Key Performance Tables**

### **Employment Performance**

Indicators		As of 31 December 2022	As of 31 December 2021
Total number of employees <sup>1</sup>		61,328 <sup>2</sup>	68,226
Number of ampleyees by ampleyment type3	Permanent employees	60,135	65,109
Number of employees by employment type <sup>3</sup>	Other categories	1,193	3,117
	Under 30	22,675	28,608
Number of employees by age group	30 to 50	38,400	39,420
	Over 50	253	198
Number of availables by wander	Male	43,693	48,406
Number of employees by gender	Female	17,635	19,820
Ni wahay of awalayaa hu waayaa saasad layal	Management	6,535	6,119
Number of employees by management level	Non-management	54,793	62,107
N	The Mainland of China	59,644	66,906
Number of employees by geographic region	Others	1,684	1,320
Employee turnover			
Total turnover rate <sup>5</sup>		21.7%	12.4%
	Under 30	23.6%	14.6%
Employee turnover rate by age group	30 to 50	20.5%	10.9%
	Over 50	20.5%	19.4%
Fundamental was a superior with the superior	Male	21.7%	11.9%
Employee turnover rate by gender		21.8%	13.5%
For all the second seco	The Mainland of China	21.6%	12.3%
Employee turnover rate by geographic region	Others	28.2%	15.1%

### Notes:

The total number of employees in this report covers the Company's permanent employees, as well as consultants and interns who are directly employee by the Company, excluding employees of subsidiaries and consolidated investee companies, as a reference for the disclosure of employee breakdown by employment type, age and gender. The total number of employees in the Group's results announcement and annual report was 108,436, including employees of the Company, subsidiaries and consolidated investee companies.

In 2022, amidst challenging macroeconomic conditions and structural changes in the industry, we embraced the changes and pursued long-term sustainable development by optimising organisational structures, consolidating resources, and focusing on core strategic areas. On one hand, we shut down or rationalised several loss-making non-core businesses, optimised investments in labour and capital demanding businesses, optimised the allocation and deployment of our human resources, and controlled new hires. On the other hand, we enhanced operational efficiency and achieved value creation through a series of measures, including controlling marketing expenses, reducing operating costs, and strengthening process management to improve the return on investment. Nevertheless, we continue to increase investment in human and financial resources for research and development (R&D) and core areas that will sustain our long-term competitiveness, as well as improve the processes and mechanisms that support talent retention. In tackling these challenges, senior management was proactive in communicating the Company's strategic direction and progress to our employees, during all-hands meetings, internal strategy conference, strategy briefings, and senior management interviews, and in advising employees to stay focused, confident amid this difficult period. The Company has implemented measures to minimise the impact on employees through various supportive measures, including providing transition periods, internal transfer opportunities and appropriate compensation for those who were impacted.

Employment type: other categories refer to consultants and interns directly employed by the Company.

Employee turnover rate = (Number of permanent employees who left the Company during the reporting year/Average number of permanent employees during the reporting year) × 100%. Employee turnover reflects the number of permanent employees who have left (due to voluntary resignations, dismissals, retirement).

## **ESG Key Performance Tables**

## **Employment Performance**

### Health and Safety<sup>1</sup>

Indicators	2022	2021	2020	
Number of work-related fatalities <sup>2</sup>	1	0	0	
Work-related fatality rate (number of fatalities/millions of hours worked) <sup>3</sup>	0.01	0.00	0.00	
Number of work-related injuries	11	32	28	
Work-related injury rate (number of injuries/millions of hours worked) <sup>4</sup>	0.09	0.25	0.27	
Working days lost due to work-related injuries	322	480	281	

### Training and Development<sup>5</sup>

Indicators		As of 31 December 2022	As of 31 December 2021
Percentage of employees who received training	Male	99.4%	99.6%
(by gender)	Female	99.6%	99.6%
Percentage of employees who received training	Management	99.7%	99.8%
(by management level)	Non-management	99.4%	99.6%
Average hours of training received by employees	Male	35.4	39.7
(by gender)	Female	38.5	44.1
Average hours of training received by employees	Management	50.5	55.5
(by management level)	Non-management	34.6	39.5

### Notes:

- 1. The data refers to the work-related deaths and injuries from accidents reported by Tencent's Human Resources team and verified by relevant local government authorities. In the Mainland of China, such cases, if any, are reported to the Human Resources Department and verified by the Human Resources and Social Security
- The fatality occurred outside the workplace. We assisted the family members concerned with reporting the case to the authority for processing the statutory subsidy for work-related decease. Besides offering our condolences and administrative support, we made a bereavement payment to assist the family members concerned.
- Work-related injury rate = (Number of recorded work-related injuries/Number of hours worked)  $\times$  1,000,000.
- Work-related fatality rate = (Number of work-related fatalities/Number of hours worked)  $\times$  1,000,000.
- 5. Training refers to in-person and online courses we provided to employees.

## **Analysis of the Impact of Climate-related Risks and Opportunities**

Physical Risk Cat		Impact of Potential Risks		Level of Potential Impact		
			Baseline	2030	2050	
Extreme heat	Acute	<ul> <li>Shortage of power supply due to extreme heat may affect the continuous operation of power-using facilities, potentially impacting revenue</li> <li>Extreme heat increases the cooling demand of facilities, and the corresponding increase in cooling energy consumption which may lead to increased operating costs</li> <li>Extreme heat poses potential safety and health risks to employees</li> </ul>	Low	Moderate	High	
Extreme cold		<ul> <li>Increased energy demand for heating during extreme cold conditions may bring additional operating cost and pose safety and health risks to employees</li> <li>Icing and blizzard affect the continuity of facility operations and may impact revenues</li> </ul>	Low	Low	Limited	
Flooding (including river, coastal and extreme rainfall)		<ul> <li>Flooding may damage data centres potentially resulting in data loss and safety risks to employees</li> <li>Flooding may affect the continuous operation of the facility and may impact revenue</li> </ul>	Moderate	Moderate	High	
Tropical cyclones		<ul> <li>Extreme wind and flooding caused by tropical cyclones may damage the infrastructure and pose safety risks to employees</li> <li>Temporary closure of assets due to tropical cyclones may lead to business interruption, potentially impacting revenue</li> </ul>	Moderate	High	High	
Rainfall-induced landslides		Landslides may damage the infrastructure and facilities, resulting business interruption, potentially impacting revenue, and may pose safety risks to employees	Low	Low	Low	
Wildfires		Wildfires may damage facilities and affect the continuous operation of facilities, potentially impacting revenue and posing safety risks to employees	Moderate	Moderate	High	
Water stress and drought	Chronic	<ul> <li>Lack of cooling water for data centres due to water shortages may affect the continuity of operations and impact revenue</li> <li>In the event of shortage of common water, this may result in increased operating costs for backup water procurement</li> </ul>	Moderate	High	High	

## **Analysis of the Impact of Climate-related Risks and Opportunities**

Transition Risk	Category Impact of Potential Risks				Level of Potential Impact					
				2030	2040	2050				
Enhanced regulatory requirements of energy efficiency standards		•	Increased capital and operating costs for improving energy efficiency in compliance with regulatory requirements	Low	Low	Low				
Increased requirements on climate change action and disclosure	Policy & Leg	gal •	Increased operating costs associated with climate response measures, management and information disclosure enhancement due to climate-related policies	Low	Moderate	Moderate				
Implementation of carbon emission reduction policies		•	Increased capital and operating costs due to the potential purchase of carbon emission allowance and emission reduction activities  Increased operating costs due to higher prices of carbon emission allowance or carbon credits	High	High	High				
Uncertainty around the procurement of renewable energy		•	Increased operating costs due to fluctuation of renewable energy supply market  Increased income due to the increase of green electricity price	Low	Low	Low				
Electricity price fluctuations	Market	Market	Market	Market	Market	•	Increased operating costs due to increased electricity prices resulting from power supply issues	Low	Limited	Limited
Shift in market preference towards low-carbon products			Potential loss of market share as customers shift to low carbon products and services to meet their own carbon reduction targets		Moderate	Moderate				
Potential greenwashing risk	Reputation • Inconsistency between climate-related disclosure and standards/guidelines, leading to questions about exaggerated performance and greenwashing		Low	Low	Low					
Transition Opportunity	Category	Pote	ential Opportunities		Opportunity Level					
				2030	2040	2050				
Onsite renewable energy generation	_	•	Adoption of renewable energy facilities may reduce operating costs	Low	Low	Moderate				
Adoption of energy-efficiency measures	Energy	•	Reduced operating costs due to application of energy efficiency measures to reduce energy consumption	Low	Low	Low				
Climate investment and financing in renewable energy and low carbon solutions	Market	•	Increased revenue from the external sale of renewable energy generated	Low	Low	Low				
Opportunity to sell low-carbon products	Products and Services	d •	Increased market share by offering low carbon products aligned with customer preferences and carbon neutrality targets  Increased revenue arising from providing solutions for a low carbon digitalisation shift in the economy	Low	Moderate	High				

# **Key Climate Risks and Opportunities Response Measures**

Key Climate Risks and Opportunities	Category	Response
Extreme heat	Acute Physical Risks	Considering climate resilience in the design and construction process to enhance the ability of facilities to withstand extreme weather. For example, put servers, air conditioners, and other equipment above
Flooding (including river, coastal and extreme rainfall)		the flood design level or wind resistance levels.
Tropical cyclones		Developing and implementing contingency plans to cope with extreme weather.
• Wildfires		Building and maintaining facilities to cope with extreme weather. For example, flood gates, shade facilities.
		Preparing and maintaining materials to cope with extreme weather. For example, back-up power, flood sandbags.
Water stress and drought	Chronic Physical Risks	Improving the efficiency of water use through facility management improvements.
		Installing water reuse facilities to increase water recycling.
		Considering the availability of alternative water sources in case of water shortage, and preparing backup water facilities (e.g., backup water trucks).
Implementation of carbon emission reduction policies	Policy & Legal Risks	Using renewable energy and improving energy efficiency. For example, exploring green power trading mechanisms, applying energy-saving technologies to reduce PUE.
Increased requirements on climate change action and		Implementing a carbon allocation system in accordance with operational site requirements and exploring carbon trading mechanisms.
disclosure		Disclosing climate-related information in accordance with applicable standards/frameworks, including TCFD.
Shift in market preference towards low-carbon products	Market Transition Risks & Product	Reducing the carbon footprint of our products and services, providing low carbon choices to customers.
Opportunity to sell low-carbon products	and Service Opportunities	Providing digital low-carbon transition solutions for customers, including digital upgrades in the energy industry, to support the low-carbon digital transition of different sectors.

### **Assurance Report**



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### Independent practitioner's limited assurance report To the board of directors of Tencent Holdings Limited

We have undertaken a limited assurance engagement in respect of the selected Environmental, Social and Governance ("ESG") information of Tencent Holdings Limited (the "Company") listed below in the Company's ESG report for the year ended 31 December 2022 ("the 2022 ESG report ") (the "Selected ESG Information").

Selected ESG Information

The Selected ESG Information for the year ended 31 December 2022 is summarised below:

### Environmental

- Total energy consumption (MWh)
- · Total energy consumption per unit of revenue (MWh/RMB Million)
- · Direct energy consumption (MWh)
  - Gasoline (L)
  - Diesel (L)
  - Natural gas (m3)
- Indirect energy consumption (MWh)
  - Purchased electricity (MWh)
  - Other indirect energy consumption (MWh)
  - Renewable energy purchased (MWh)
  - On-site renewable energy (MWh)
  - Percentage of renewable energy (%)
  - Installed capacity of on-site renewable energy facility (MW)
- · Average PUE in data centre
- · Water consumption (tonnes)
- · Water consumption per unit of revenue (tonnes/RMB Million)
- · Hazardous waste (tonnes)
- · Hazardous waste per unit of revenue (kg/RMB Million)
- Non-hazardous waste (tonnes)
- · Non-hazardous waste per unit of revenue (kg/RMB Million)
- · Reusing amount of electronic equipment (tonnes)
- · Recycling amount of electronic waste (tonnes)
- Green building certified office space (10,000 m2)
- · Cumulative number of green and lowcarbon related certificates received by data centres

### **Employment**

- Other categories
- · Number of employees by age group
- · Number of employees by gender
- Male
- Female
- level
  - Management

### Employee Turnover

- · Total turnover rate
- 30 to 50
- Over 50
- · Employee turnover rate by gender

### **Employment**

- Total number of employees
- · Number of employees by employment
  - Permanent employees

  - Under 30
  - 30 to 50
- Over 50

- Number of employees by management

  - Non-management
- · Number of employees by geographic
  - The Mainland of China
  - Others

- · Employee turnover rate by age group
  - Under 30
- Male
- Female

PricewaterhouseCoopers, 22/F Prince's Building, Central, Hong Kong SAR, China T: +852 2289 8888, F: +852 2810 9888, www.pwchk.com



羅兵咸永道

### Sustainable Supply Chain

- Number of suppliers by geographic region
   The Mainland of China
- Hong Kong, Macao, and Taiwan
- Other countries and regions

**Customer Communication and Services** 

· Number of consumer internet customer

· Number of industrial internet customer

· Number of results of corruption-related

· Tencent's disbursement on projects related

to SSV and the "Common Prosperity"

service complaints received

service complaints received

Anti-Fraud Investigation and

Management

cases received

**Creating Social Values** 

initiative (RMB Million)

### Health and Safety

Others

- · Number of work-related fatalities
- · Work-related fatality rate (number of fatalities / millions of hours worked)

· Employee turnover rate by geographic

- The Mainland of China

- Number of work-related injuries
- · Work-related injury rate (number of injuries / millions of hours worked)
- · Working days lost due to work-related injuries

### Training and Development

- · Percentage of employees who received training (by gender)
- Male
- Female
- · Percentage of employees who received training (by management level)
  - Management
  - Non-management
- Average hours of training received by employees (by gender)

  - Male - Female
- · Average hours of training received by employees (by management level)
- Management
- Non-management

Our assurance was with respect to the year ended 31 December 2022 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the 2022 ESG report and, therefore, do not express any conclusion thereon.

### Criteria

The criteria used by the Company to prepare the Selected ESG Information is set out in the section headed "About This Report" in the 2022 ESG report (the "Criteria").

The Company's Responsibility for the Selected ESG Information

The Company is responsible for the preparation of the Selected ESG Information in accordance with the Criteria. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Selected ESG Information that is free from material misstatement, whether due to fraud or error.

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### **Assurance Report**



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### Inherent limitations

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

### Our Independence and Quality Management

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

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

### Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Selected ESG Information based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements other than Auditor or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. That standard requires that we plan and perform this engagement to obtain limited assurance about whether the Selected ESG Information is free from material misstatement.

A limited assurance engagement involves assessing the suitability in the circumstances of the Company's use of the Criteria as the basis for the preparation of the Selected ESG Information, assessing the risks of material misstatement of the Selected ESG Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Selected ESG Information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

Given the circumstances of the engagement, in performing the procedures listed above we:

- obtained an understanding of the ESG governance structure, ESG strategy and stakeholder engagement process;
- made inquiries of the personnel involved in the preparation of the ESG report regarding the
  preparation process and the internal control system relating to this process;

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- understood the process for collecting and reporting the Selected ESG Information. This
  included visiting the Company's corporate head office in Shenzhen, two office buildings and
  two data centres, understanding the key data collection processes and controls at the selected
  sites and analysing the relevant data collected;
- performed limited substantive testing on a selective basis and analytical procedures of the Selected ESG Information at the selected sites to substantiate the data is appropriately measured, recorded, collated and reported; and
- considered the disclosure and presentation of the ESG report prepared in accordance with underlying records and the ESG Reporting Guide, Appendix 27 to the Main Board Listing Rules by the Stock Exchange of Hong Kong Limited.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether the Company's Selected ESG Information has been prepared, in all material respects, in accordance with the Criteria.

### Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Company's Selected ESG Information for the year ended December 31, 2022 is not prepared, in all material respects, in accordance with the Criteria.

Our report has been prepared for and only for the board of directors of the Company and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the content of this report.

PricewaterhouseCoopers Certified Public Accountants

Hong Kong, 4 April, 2023

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### **Greenhouse Gas Verification Statement**



SGS has been contracted by Tencent Holdings Limited (hereinafter referred to as "CLIENT"), for the verification of direct and indirect Greenhouse Gas emissions in accordance with

as provided by Tencent Holdings Limited (hereinafter referred to as "RESPONSIBLE PARTY"), in the Greenhouse Gas (GHG) Assertion in the form of GHG Report covering GHG emissions of the period 1 Jan. 2022 to 31 Dec. 2022 (hereinafter referred to as "REPORT PERIOD").

The management of the RESPONSIBLE PARTY is responsible for the organization's GHG interinsingement or the RESPONSIBLE PART I is responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions. It is SGS's responsibility to express an independent GHG verification opinion on the GHG

statement as provided by the RESPONSIBLE PARTY for the REPORT PERIOD.

According to ISO 14084-3:2019, SGS has conducted a third-party verification of the provided GHG statement by RESPONSIBLE PARTY against the requirements of ISO 14084-1:2018 in the period 20 - 21 Feb. 2023. The verification is based on the verification scope, objectives and criteria as agreed between the CLIENT and SGS on 20 Feb. 2023.

Level of Assurance
The level of assurance agreed is that of Reasonable assurance.

The CLIENT has commissioned an independent verification by SGS in according to ISO 14084-3:2019 to assure the reported GHG emissions of RESPONSIBLE PARTY, in conformance with ISO 14084-1:2018 requirements within the scope of the verification as outlined below. The data and information supporting the GHG statement is historical in nature.

This engagement covers verification of emission from anthropogenic sources of greenhouse gases included within the organization's boundary:

- · The organizational boundary is established following Operational control approach . Location/boundary of the activities: detail boundary information has been listed in
- Physical infrastructure, activities, technologies and processes: Communication and Social, Digital Content, Games, Online Advertising, FinTech, Cloud and Other Business Services.
- GHG sources, sinks and/or reservoirs included: GHG sources as presented in the GHG inventory and report of the RESPONSIBLE PARTY
- Types of GHGs included: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub>
- GHG information for the following period was verified: 1 Jan. 2022 to 31 Dec. 2022
  GWP adopted: IPCC 6 Assessment Report.
  Intended user of the verification statement: Stakeholders information request

The purposes of this verification exercise are, by review of objective evidence, to

. Whether the GHG emissions are as declared by the organization's GHG statement



. The data reported are accurate, complete, consistent, transparent and free of

Criteria against which the verification assessment is undertaken are the requirements of ISO

The materiality required of the verification is considered by SGS to 5%, based on the needs of

### Verification approach

SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions information and the controls in place to mitigate these. Our examination includes assessment of evidence relevant to the amounts and disclosures in relation to the organization's reported GHG emissions

We plan and perform our work to obtain the information, explanations and evidence that we considered necessary to provide a reasonable level of assurance that the GHG emissions for the REPORT PERIOD are fairly stated.

We conduct our verification with regard to the GHG statement of GHG Report of the RESPONSIBLE PARTY which includes assessment of GHG information system and reporting plan/protocol. This assessment includes the collection of evidence supporting the reported data, and checking whether the provisions of the protocol reference, are consistently and

Verification opinion conclusion
The RESPONSIBLE PARTY provided the GHG statement based on the requirements of ISO 14084-1:2018 that total emission 5,739,723.65 tonnes of CO<sub>2</sub>e in the organization boundary

The verification opinion as below is issued by SGS after an independent verification for RESPONSIBLE PARTY's GHG statement base on agreed Reasonable assurance:

☑ Unmodified The GHG statement submitted by RESPONSIBLE PARTY is prepared in accordance with ISO 14064-1:2018 on GHG quantification and reporting, is a fair representation materially, the GHG data and information in statement are explicit and supported by adequacy and separatiate evidence.

The GHG statement submitted by RESPONSIBLE PARTY has no material misstatement however has some deficiencies which will prevent the issuance of unmodified verification

The GHG statement submitted by RESPONSIBLE PARTY:
- has no material misstatement or

- there is insufficient or inappropriate evidence to support an unmodified or modified opinion.

☐ Disclaiming the issuance of an opinion
It is unable to obtain sufficient and appropriate objective evidence to form an opinion as to whether the GHG statement submitted is presented fairly in accordance with ISO 14064-1:2018



This statement shall be interpreted with the GHG statement of GHG Report of the RESPONSIBLE PARTY as a whole. 
RESPONSIBLE PARTY as a whole. 
Note: This Statement is assued by 505-CSTC Standards Technical Services Co. Ltd. ("505") under as General Conditions for Greenhouse Case Validation & Verification Services. The findings and the supporting GHD Assertion may be consulted from REPONSIBLE PARTY. This Statement does not relever Client from compliance with any by laws, fideral, national or rejoinal acts and congulations or with any publicious issued pursuant to such regulations or with any publicious in 505 and 505 and 505 and 1500 an

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Note: "KPI A2.5 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit products sold or shipped subject to recalls for safety and health reasons" and "KPI B6.4 Recall procedures", are not closely relevant to the Company's main businesses and are therefore classified as insignificant. Regarding "KPI B4.2 Description of steps taken to eliminate such practices when discovered", there were no instances of non-compliance during the reporting period.