千方科技
CHINA TRANSINFO

2024

Environmental, Social and Governance Report

China TransInfo Technology Co., Ltd.

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About the Report

This is the second Environmental, Social and Governance (ESG) report (hereinafter referred to as the "ESG Report") published by China TransInfo Technology Co., Ltd. The Report provides a comprehensive disclosure of China TransInfo's management initiatives, key practices, and achievements in the areas of environment, society, and governance throughout 2024.

Reporting Period

This Report is an annual report covering the period from January 1, 2024 to December 31, 2024. To ensure the continuity and completeness of information, some content may extend beyond the stated time frame.

Organizational Scope

The Report covers China TransInfo Technology Co., Ltd. and its branches, subsidiaries and directly-affiliated organizations. For ease of reference, "China TransInfo Technology Co., Ltd." is also referred to in this Report as "China TransInfo", "TransInfo", "the Company", or "we".

Preparation Basis

- *GRI Sustainability Reporting Standards* (GRI Standards) by Global Sustainability Standards Board (GSSB)

- *Guidance on Social Responsibility Reporting* (GB/T36001-2015) (a China national standard)

- *Self-regulatory Guidelines No. 1 for Companies Listed on the Shenzhen Stock Exchange - the Standardized Operation of Companies Listed on the Main Board*

- *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainable Development Report (Trial)*

Source of Information

All information and data contained in this Report are derived from official documents, statistical records, financial reports, and publicly available materials of the Company. China TransInfo guarantees that this Report contains no false records, misleading statements, or significant omissions. Amounts in this Report are denominated in RMB unless otherwise stated.

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Chairman's Statement

In 2024, the rapid development of artificial intelligence brought profound changes to the transportation industry. In this year, policies promoted the construction of digital infrastructure, and AI models revolutionized traffic management, and accelerated the large-scale application of vehicle-road collaboration. At the same time, the harmonious co-development between new energy and low-carbon technologies drove innovation in smart infrastructure and accelerated the standardized layout. Under the multidimensional resonance of policies, technologies, and markets, smart transportation accelerated towards a three-dimensional, green, and intelligent direction, ushering in a new development pattern.

At China Transinfo, we have embraced a technology-powered and data-driven approach and adhered to the core concept of "making the world safer, more convenient, and smarter". We have continuously advanced digital technology innovation and application, providing customers with digital transformation services that cover smart transportation, intelligent connectivity, smart IoT, and other fields. We have also built a strategic ecosystem for the whole industry chain, leading the sustainable development of the smart transportation industry.

We advance smart transportation and create a better future with intelligence. We have empowered urban governance and people's livelihood improvement through technological innovation and scenario-based applications. We have taken the lead in developing an integrated solution spanning from the vehicle end to the roadside, and from the product level to system-level cloud-edge-device integration. Besides, we have led the industry trend in the application of the integrated vehicle-road-cloud system. Furthermore, we have adopted digital means, such as a big data platform for transportation operation, to assist in the full upgrading of urban transportation management. We have actively expanded the overseas market of smart transportation and promoted efficient transportation governance. We are committed to building a greener, more low-carbon, and safer travel environment. Our slope stability monitoring solution, launched in 2024, was successfully selected for the Ministry of Transport's "open-competition based project

leader selection" program. In this year, we also introduced the KunChao · Edge Station, a lightweight intelligent intersection edge application product, and innovatively upgraded our smart parking solutions to the integrated parking and charging system to support the green and low-carbon development of urban transportation. Besides, we have worked hand in hand to achieve industry-wide digital and intelligent collaboration. We have explored space-based intelligent computing applications with our ecological partners, and collaborated with the Beijing Institute for General Artificial Intelligence to create a traffic intelligence system, contributing to the construction of a smart city ecosystem.

Innovation drives development and leads transportation transformation. We have continuously improved our technology innovation management system, with a focus on the R&D layout of "three academies, five institutes and nine centers" to integrate R&D resources. We have deepened the industry-university-research collaborative innovation mechanism, and cooperated with top research institutions to continuously enhance our innovation capabilities. In 2024, we achieved multiple innovative results and successfully assisted Air China in completing data decoding for the C919 aircraft model. Our self-developed "Kunchao · Double Intelligent Intersection" new generation urban transportation infrastructure was selected as a typical case of "Artificial Intelligence+" application scenarios. The project titled "Key Technologies and Applications of Vehicle-Road-Cloud Communication and Computing Collaboration" won the First Prize of Science and Technology Award from China Institute of Communications. The Project of "Traffic Management at CBD of Chaoyang District" won the highest award in the municipal engineering industry nationwide. During the strategic cooperation with industry associations and leading enterprises, we established Xiong'an Transinfo Digital City Intelligent Connection Technology Co., Ltd., to assist Xiongan New Area in building a new benchmark of digital roads, intelligent connectivity and intelligent transportation. Besides, we participated extensively in the formulation of industry standards and jointly promoted the sustainable development of the industry.

We empower talent growth with our open, inclusive, and symbiotic philosophy. We have adhered to the principle of putting people first and built a diverse, equal, and inclusive workplace ecosystem on all fronts. We have established a sound occupational health management system. To be specific, we have paid attention to the physical and mental health of employees, and cared for their work and life, for the purpose of continuously improving their sense of happiness and belonging. We have established a comprehensive talent introduction policy and process, with a focus on introducing technical, versatile, and business-oriented middle & senior managers and outstanding talent teams. Besides, we have partnered with multiple key universities to create an integrated talent cultivation ecosystem featuring industry-university-research-application through collaborative laboratories, joint research projects, and internship bases. Furthermore, we have built a comprehensive talent development ecosystem and devoted ourselves to building an empowering organization, providing employees with a broad platform to realize their professional value. In 2024, our total number of employees reached 6,380, with 825 new hires, and our employee training expenses amounted to RMB 1,777,000, with a total training duration of 302,466 hours.

We join hands for win-win cooperation and co-build a smart ecosystem. We have actively participated in community development and dedicated ourselves to areas such as growth education, nature education, life education, and emergency relief & rescue, to help promote social prosperity and development. In 2024, our public welfare investment reached RMB 802,000. We practiced green and low-carbon production and operation methods. We also created green parks, promoted resource recycling, and reduced the impact of our operations on the environment. Besides, we integrated ESG concepts into the full lifecycle management of our supply chain, strengthened supply chain risk management, and worked to create a responsible supply chain. In 2024, we had a total of 13,734 suppliers.

We pursue integrity and steady operation to safeguard our long-term development. We have continuously improved our corporate governance structure and enhanced the level of corporate governance. We have also strengthened the

management on internal control of risks and ensured the stable operation of our business. We have pursued honest operation and abided by business ethics. Besides, we have maintained a "zero tolerance" attitude towards bribery and corruption, attached importance to the development of a clean corporate culture, and strengthened employees' compliance awareness. We have attached great importance to anti-monopoly and anti-unfair competition compliance, recognizing and advocating the value of fair competition. We have also established a multi-level information security protection system to protect information and data security in all aspects.

We sincerely appreciate the trust and support of numerous stakeholders in 2024. Moving forward, we will continue to promote the deep integration of "Artificial Intelligence+" with the transportation field, for the purpose of creating long-term value for customers, partners, and employees through technology and experience. We will continue to promote the coordinated development of economic, social, and environmental benefits, thus contributing our efforts to the field of smart transportation.

Chairman of the Board Xia Shudong

About Us

Company Overview

As a leading digital products and solutions provider in China, China Transinfo is a pioneer and practitioner in the field of digital transportation, an initiator and leader of the technology roadmap of vehicle-road coordination, and a world's fourth-ranked provider of AIoT (Artificial Intelligence of Things) products, solutions, and full-stack capabilities. Embracing a technology-driven approach, we have established a strategic ecosystem that spans the entire industry chain, from key artificial intelligence algorithms to intelligent sensors, and from smart manufacturing to intelligent control hubs, and to cloud-edge-device connections. We actively promote the convergence, integration and application of multi-source heterogeneous data in sectors such as transportation, traffic management, and urban governance. We are dedicated to using digital technologies to accelerate the digital transformation of transportation and the development of digital urban infrastructure.

Founded in the early 2000s in Beijing's Zhongguancun area, China Transinfo began expanding its international business in 2014. In 2015, we became the industry's first to achieve a comprehensive "big transportation" layout covering road, rail, aviation, and water. Currently, we are further extending into emerging fields such as integrated transportation-energy systems. Besides, we have over 6,300 employees. We serve over 2,000 top-tier clients across industries and continue to maintain technological and market leadership in multiple sub-sectors such as smart transportation and smart IoT.

Driven by the vision of "making the world safer, more convenient, and smarter", we continue to pursue innovation. We are recognized as a National Enterprise Technology Center and a National Model Enterprise for Technological Innovation. Our affiliated research platforms have been recognized as the Intelligent Transportation Technology and Equipment Industry R&D Center by the Ministry of Transport of the People's Republic of China, a Key Laboratory for IoT Application Technology by the Ministry of Public Security and a National CNAS Accredited Laboratory. We have filed over 5,400 intellectual property patents and have led or participated in the development of nearly 90 international, national, and industry standards. We also play a leading role in developing autonomous driving evaluation standards in Beijing. This initiative was selected as one of the "Hundred Group Standards Application Demonstration Projects" by the Ministry of Industry and Information Technology and has been recognized as a "Zhongguancun Standard" for nationwide promotion and application. Since China's 13th Five-Year Plan, we have continuously undertaken a number of national science and technology support projects, and received multiple prestigious awards including the Second Prize of the State Technological Invention Award, the Second Prize of the State Scientific and Technological Progress Award, and the China Patent Gold Award.

As of the end of December 2024

We had served more than **2,000** top-tier clients

We had supported over **300** million daily passenger trips

We had employed a total of **6,300+** persons

Our technical professionals had accounted for **50%** of the total

In 2024

Our operating income was RMB **7.249** billion

We paid taxes of RMB **419** million

We had a total asset of RMB **11.706** billion

Business Scenarios

As a practitioner of digital governance of omni-transportation, China Transinfo continues to strengthen its presence in key domains such as smart transportation, intelligent connectivity and smart IoT. We have established a strategic ecosystem that spans the entire industry chain, from key artificial intelligence algorithms to intelligent sensors, and from smart manufacturing to intelligent control hubs, and to cloud-edge-device connections. We actively explore and deliver intelligent solutions and digital products tailored to customer needs.

Smart Transportation

Our operations encompass all major transportation sectors, including road, rail, air, and water transportation. Through a data-driven approach, we drive the digital transformation of the transportation industry, targeting over 1,000 typical business scenarios. Our innovative utilization of data serves as a cornerstone for traffic industry management decisions, public services, transportation safety assurance, operational efficiency enhancement, and the improvement of the public travel experience. With a track record of successfully implementing over 6,500 industry-level programs across various domains such as highway transportation, urban road traffic, civil aviation transport, rail transportation, and city parking, we facilitate convenient travel for over 300 million individuals daily. Furthermore, we consistently provide services for major national events and sports activities, ensuring seamless transportation operations.
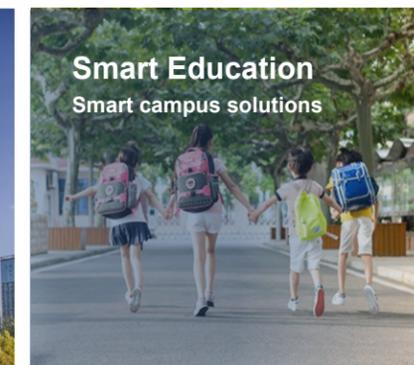
Smart Road Net
Smart expressway solutions

Smart Transportation Operation
Smart transport solutions
Integrated law enforcement solutions

Smart Traffic Management
Integrated management solution for urban traffic congestion
Integrated traffic management solutions for national and provincial expressways and county and township highways
Big-data and think-tank-based solutions for traffic management of public security agencies

Static Traffic
Integrated management solutions for urban static traffic
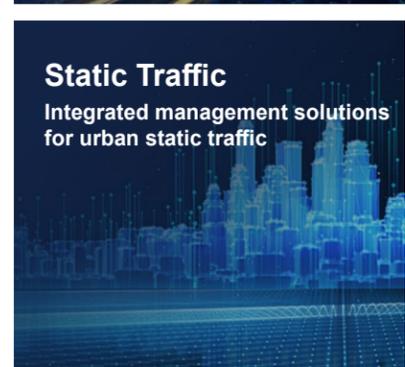
Smart Transportation
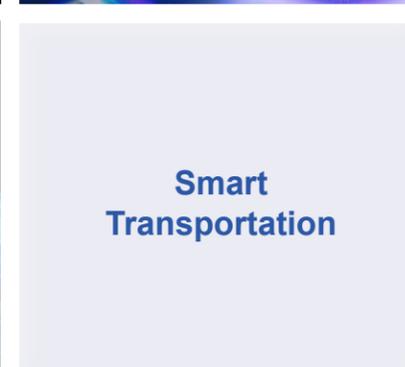
Smart Rail Transportation
Smart rail transportation solutions
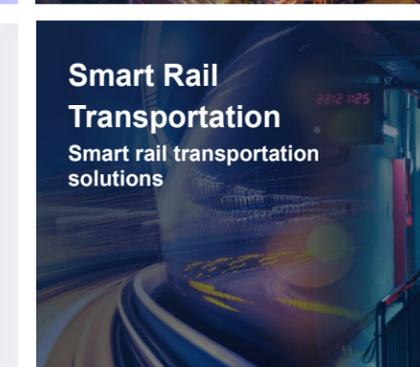
ETC
ETC urban extension solutions

Smart Civil Aviation
Digital solutions for airports
Big-data-based fuel saving platform solutions for airlines
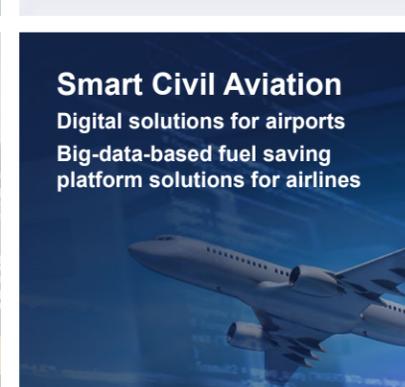
Intelligent Connectivity
Intelligent connectivity application solutions
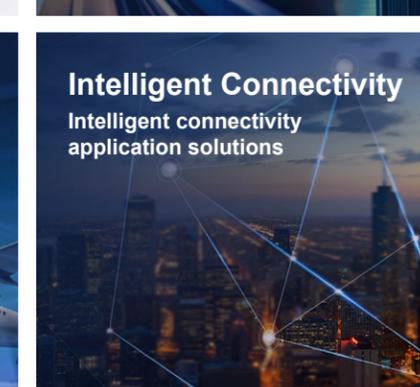
Intelligent Connectivity

Based on technologies such as IoT perception, big data, and artificial intelligence, China TransInfo is at the forefront of pioneering comprehensive solutions in the field of vehicle-road coordination. We have achieved remarkable success in developing integrated solutions spanning from the vehicle end to the roadside, and from the product level to the integrated vehicle-road-cloud system. Our endeavors extend from autonomous driving demonstration areas and test sites to the establishment of smart intercity transportation systems, reflecting our commitment to comprehensive exploration and practical implementation. As one of the leading innovators in China's vehicle-road coordination and autonomous driving technology, our solutions and products have made significant impacts in various locations including Beijing, Xiong'an, Dali, Changsha, Hebei, and Jilin.

Smart IoT

With "ABCI" (AI Artificial Intelligence, Big Data, Cloud Computing, IoT) technologies at its core, the Company has established a complete business system encompassing design, R&D, manufacturing, sales, and after-sales service. We have a global smart manufacturing base in Tongxiang, Zhejiang Province, providing AIoT products, solutions, and full-stack capabilities to assist various industries in building a digital foundation. Through our services, we empower government clients in digital governance, assist customers in digital transformation endeavors, and enhance the lives of consumers through smart living solutions. By the end of 2024, we had participated in the development of over 570 smart cities and served more than 600 large enterprises.

Social Governance
Omni social governance platform solutions

Smart Education
Smart campus solutions

Smart Tourism
Smart scenic area solutions

Smart Complex
Smart complex solutions
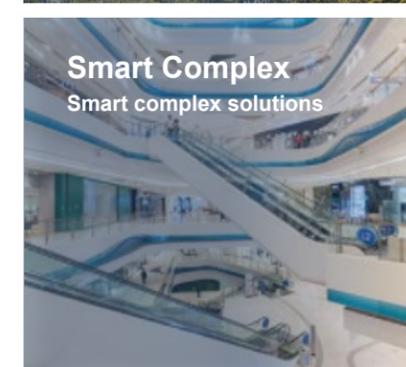
Smart IoT
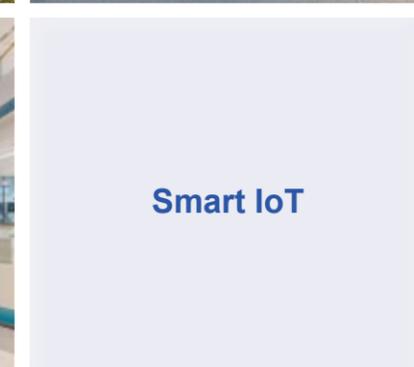
Digital Energy
Construction of smart parks of petrol and petrochemical companies

Digital and Intelligent Hospitals
Digital and intelligent hospital solutions

Smart Industry
Professional management of smart plants

Smart Physical Education
AI physical education solution

History

2000
- On October 30, 2000, Beijing PKU ChinaFront High Technology Co., Ltd. was officially established.

2003
- The Embedded Geographic Information System (GIS) - GeoPad received the certificate of the Torch Program of China.
- The company developed the SARS 2009 decision- making support system for Beijing's Chaoyang District and Hefei and explored the prototype of the "urban brain".

2008
- The company served several Olympic events and was honored with the Special Award for Traffic Information Service and Assurance in Beijing Olympics.

2009
- China TransInfo was established and the group-based operation started.
- It built a whole intelligent transportation industrial chain that covered intelligent urban transportation, intelligent expressway transportation, and integrated traffic information services.
- It provided real-time traffic information service, key commercial vehicle monitoring service, and visitor flow monitoring products to the Shanghai Expo.

2013
- China TransInfo led the construction of China's first national Internet of Vehicles (IoV) industrial center in Beijing.
- It was acknowledged as the transportation industry research and development (R&D) center for intelligent transportation technologies and equipment by the Ministry of Transport.
- It undertook the first IoV research project under the national 863 Program of the Ministry of Science and Technology.

2014
- China TransInfo was listed on the Shenzhen Stock Exchange, coded 002373.
- It was the first to raise and implement a comprehensive transportation industry deployment that covered urban transportation, highway transportation, rail transportation, and civil aviation.
- It was named the key hi-tech enterprise under the Torch Program.

2016
- In its deployment of the autonomous driving sector, the Company took the lead in the model application of intelligent vehicle and smart transportation launched by the Ministry of Industry and Information Technology, initiating innovative R&D of vehicle-road coordination and autonomous driving.

2017
- China TransInfo was been relocated to the TransInfo Building in Zhongguancun Software Park, Beijing.
- It invested in Zhejiang Uniview Technologies Co., Ltd. ("Uniview" for short) for future AIoT business development.
- It established an urban transportation business unit and invested in operation services.
- It received the second prize of the State Technological Innovation Award 2016.
- Breakthroughs were made in the construction of the National (Beijing-Hebei) Demonstration Zone for Intelligent Vehicles and Smart Transportation.

2019
- China TransInfo founded the subsidiary to fully empower smart transportation through panoramic AI.
- It collaborated with the Road Net Center of the Ministry of Transport to speed up smart road net construction.
- It set up a branch office in Xiong'an as a representative of hi-tech enterprises in Zhongguancun, Beijing, to support the coordinated development in Beijing-Tianjin-Hebei region.
- It developed a whole series of intelligent and connected vehicle-road coordination products independently, and it was the first in China to pass the V2X connectivity test.

2020
- China TransInfo launched the Omni Transportation Solution for the AIoT era.
- It launched the industry's first edge computing unit and constructed the next-generation transportation system based on the cloud-edge-device technical framework.
- It was selected as a National Model Enterprise for Technological Innovation and one of the Top 100 Leading Enterprises for New Infrastructure.
- It was awarded with the "Case of Outstanding Contribution to Society" for enabling industry development with digitalization.

2021
- China TransInfo strategically invested in Unicom Continental Intelligent Transportation Technology (UCIT), allowing it to expand its business deployment beyond roads to key areas of intelligent connectivity, such as roads plus vehicles.
- The IT Benchmarking Improvement and Management Project of Jilin Provincial Expressway Group Co., Ltd., which engaged China TransInfo in its construction, was chosen as a benchmark project by the State-owned Assets Supervision and Administration Commission of the State Council.
- It collaborated with the Dali Prefecture Government in Yunnan Province to create a smart city.
- It formed a strategic alliance with the People's Public Security University of China to build an integrated industry-academia-research development platform.

2022
- China TransInfo safeguarded the Beijing Olympic Winter Games by providing technological support in a number of aspects including transportation, arrival and departure as well as safety.
- The *Passenger Transportation Information and Data Exchange of Integrated Transportation Monitoring* that we co-formulated was officially issued by the Ministry of Transport.
- It was awarded with the "Second Prize of Scientific and Technological Progress" and the "Second Prize of Technical Invention" by China Intelligent Transportation System Association in 2022.
- It won the Grand Prize of Science and Technology by China Highway& Transportation Society.
- It launched self-developed AI signal controller and "Kunchao·Dual - Smart Intersection", the new generation of urban transportation infrastructure.
- It launched smart expressway solutions, digital security solution for smart airports and the new generation of urban solution TOCC 3.0.

2023
- China TransInfo won the first prize in the Science and Technology Advancement Award of the Ministry of Education.
- It was ranked among the 2023 Top 100 Enterprises in Beijing and Top 100 Private Enterprises in Beijing.
- It created the Universiade Intelligent Transportation Security System, providing security for the Chengdu Universiade.
- The first phase of the Dhaka Airport Elevated Expressway project in Bangladesh, one of its overseas projects, was completed and opened to traffic; and the new Luanda International Airport was delivered and put into operation.
- It joined hands with Aliyun to build a large model (LM) of transportation to empowers China TransInfo Cloud Police to innovate and upgrade.
- It launched China TransInfo Kunchao - Intelligent Intersection Cloud Control Platform and China TransInfo Kunchao - Security Guard.

2024
- China TransInfo jointly established Xiong'an Transinfo Digital City Intelligent Connection Technology Co., Ltd., a joint venture with China Xiong'an Group - marking the first public-private joint venture under the Group.

Recognitions and Awards

First Prize of Science and Technology Award from China Institute of Communications in 2024

China Institute of Communications

2024 Top 100 Most Competitive Enterprises in Software and Information Technology Services

China Federation of Electronics and Information Industry

Top 100 Enterprises 2024 in Beijing

Beijing Enterprise Confederation
Beijing Entrepreneurs Association

Top 100 Enterprises in Comprehensive Strength in Beijing's Software and Information Service Industry

Beijing Software and Information Service Industry Association

Top 100 Private Enterprises 2024 in Beijing

Beijing Federation of Industry and Commerce

An entrant in the *List of Projects Passing the Highest Level of Quality Evaluation for Municipal Engineering in 2024*

China Municipal Engineering Association

First Prize of Xiong'an International Next-Generation Network Technology (IPv6) Application Competition

Collection of Future City in Xiong'an

Second Prize of Xiong'an Intelligent Connected Charging Technology Application Competition

Collection of Future City in Xiong'an

2024北京企业百强
北京千方科技股份有限公司
第 85 名

2024年度软件和信息技术服务竞争力
百强企业
中国电子信息行业联合会

China Transinfo is selected as one of the Top 100 Enterprises 2024 in Beijing

China Transinfo is selected as one of the Top 100 Enterprises in Comprehensive Strength in Beijing's Software and Information Service Industry

ESG Management

China Transinfo is committed to continuously integrating ESG principles into its business operations. It has established and refined its ESG management mechanisms, clearly defined responsibilities at all organizational levels, and worked to enhance ESG governance capabilities. By proactively addressing the expectations and concerns of stakeholders, it aims to achieve long-term sustainable development.

ESG Governance Structure

China Transinfo has put in place a well-defined ESG governance structure with clearly assigned responsibilities at each level. The Board of Directors serves as the highest decision-making body for ESG matters. The Management is responsible for overseeing ESG implementation, while working groups are tasked with executing ESG initiatives, ensuring effective and efficient integration across all operations.

Board of Directors

As the highest decision-making body for ESG matters, the Board of Directors is responsible for overseeing and making decisions related to the Company's ESG affairs. This includes supervising the Company's ESG goals, strategies, and management practices, as well as reviewing the annual ESG report.

The Management

The Management is responsible for overseeing the Company's ESG management, including the development of ESG strategies, policies, and reporting. It is responsible for identifying ESG and climate-related risks, defining key ESG issues, and clearly outlining the roles and responsibilities of department heads in ESG matters. It is also responsible for formulating ESG training plans, and driving the implementation of ESG-related initiatives by providing the necessary resources and support.

Working Groups

Functional departments, branches and subsidiaries of the Company are responsible for the centralized management of specific ESG topics, driving progress toward ESG goals. They are also tasked with regularly reporting ESG-related information and updates on work progress.

ESG governance structure of China Transinfo

ESG Risk Management

We have integrated ESG risk management into our overall risk management framework to ensure that the pursuit of sustainable development is aligned with the effective identification, assessment, and mitigation of ESG-related risks. We have established a comprehensive ESG risk management framework that covers three core areas, i.e., environmental risks, social responsibility risks, and corporate governance risks. We have kept enhancing our ESG risk management capabilities with the following measures:

- **Risk Identification and Assessment:** ESG risk identification and assessment are conducted regularly, with industry characteristics, policy changes, and stakeholder expectations taken into consideration. Potential ESG risks are systematically reviewed and analyzed using a combination of quantitative and qualitative methods to evaluate both the likelihood and potential impact of each risk. Corresponding risk mitigation strategies are then developed and implemented.

- **Data Monitoring and Disclosure:** ESG-related data are regularly collected, analyzed, and disclosed to ensure transparency and accuracy. Through the publication of ESG reports and other channels, we communicate the progress and effectiveness of ESG risk management to stakeholders, thereby building greater external trust.

- **Training and Awareness Improvement:** ESG-related training is conducted on a regular basis to enhance all employees' awareness and capability in identifying and managing ESG risks. Case studies, policy briefings, and practical guidance are shared to ensure employees can effectively recognize and address ESG risks in their day-to-day work.

- **Continuous Improvement and Innovation:** We actively monitor ESG trends and best practices both domestically and internationally, and continuously optimize our ESG risk management system.
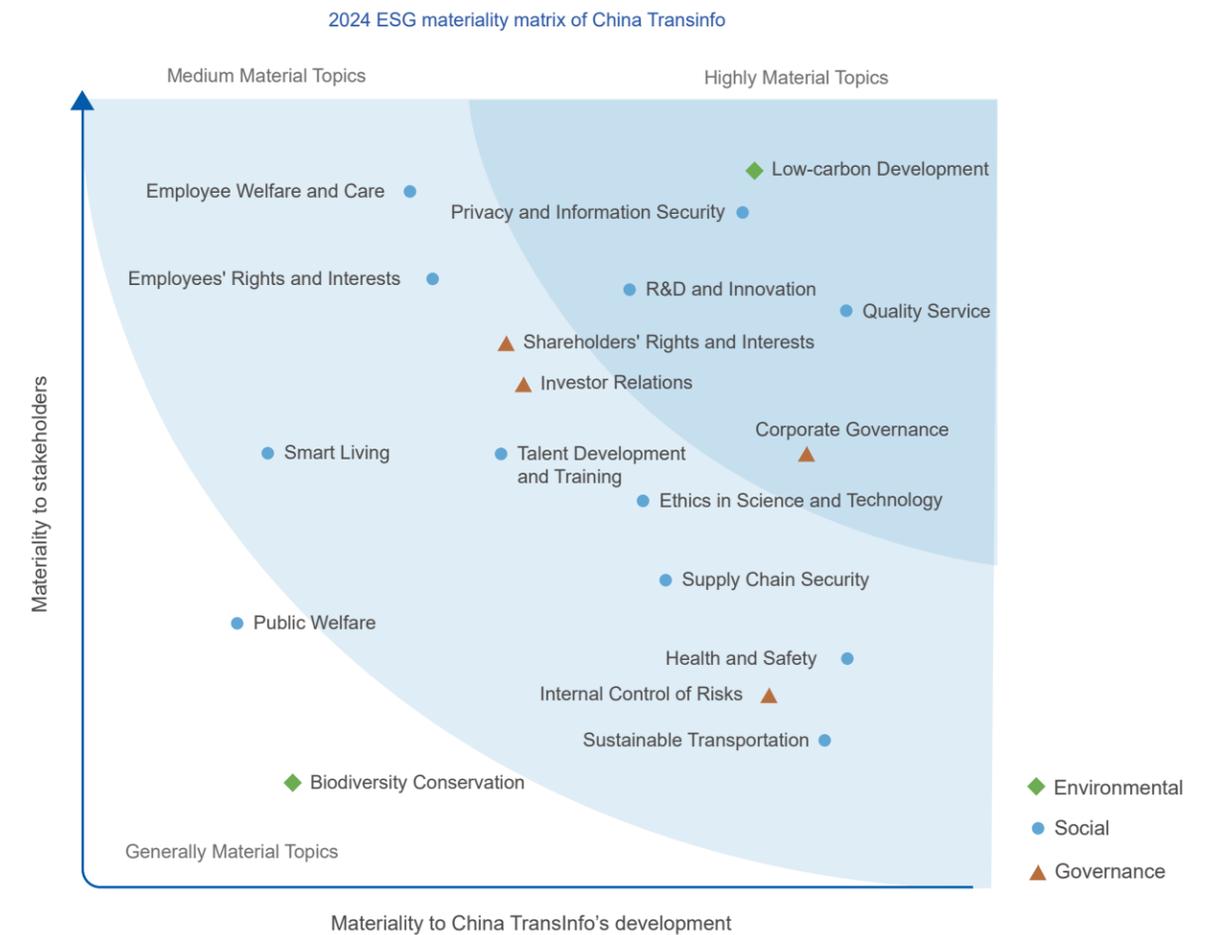
Stakeholder Engagement and Participation

China Transinfo is committed to building a diverse and inclusive stakeholder dialogue mechanism. Through the establishment of systematic communication platforms and multi-dimensional engagement channels, it aims to accurately identify and effectively respond to stakeholder concerns, thereby better meeting their expectations and needs.

Stakeholders	Expectations and Concerns	Engagement and Response Mechanisms
Governments	Compliant operation Tax payment according to law Business ethics and anti-corruption Scientific and technological innovation Support for socioeconomic development	Compliance management Taking the initiative to pay taxes Regular disclosure of business information Communication and reporting On-site inspections and supervision
Shareholders/Investors	Compliant operation Stable and sustainable returns Risk management Corporate governance Transparent information disclosure	General Meeting of Shareholders Regular reports and announcements Multiple investor communication channels
Employees	Safeguarding basic rights and interests of employees Occupational health and safety Fair opportunities for promotion and development Smooth communication Welfare and employee care	Well-structured compensation system Fair promotion channels Enhanced training programs Employee care initiatives
Customers	Product quality assurance Provision of high-quality services Customer relationship management Responsible marketing	Quality monitoring systems Inspections and supervision Customer satisfaction surveys
Partners	Commitment fulfillment Open, fair, and just procurement Win-win cooperation Intellectual property protection	Contract compliance Transparent procurement processes Technical exchanges Protecting intellectual property
Communities and the Public	Support for social development Care for disadvantaged groups Energy conservation and emission reduction	Public welfare and charitable activities Promotion of green transportation

Assessment of Material Topics

Based on national policy directions, industry development trends, regulatory requirements, and stakeholder concerns, we conducted an assessment of material topics grounded in our strategic development realities. By benchmarking against industry peers and gathering input from both internal and external stakeholders, we evaluated ESG topics along two key dimensions - their importance to China Transinfo's development and their importance to stakeholders. This process led to the development of China Transinfo's 2024 ESG Materiality Matrix.

2024 ESG materiality matrix of China Transinfo

Highly Material Topics	Medium Material Topics	Generally Material Topics
Low-carbon Development, Privacy and Information Security, Quality Service, R&D and Innovation, Corporate Governance	Employee Welfare and Care, Employees' Rights and Interests, Shareholders' Rights and Interests, Investor Relations, Ethics in Science and Technology, Talent Development and Training, Health and Safety, Smart Living, Internal Control of Risks, Sustainable Transportation, Supply Chain Security	Public Welfare, Biodiversity Conservation

01

Enabling a Smarter, Better World

As a practitioner and driver in the field of digital transportation, China Transinfo continues to advance and explore new frontiers while staying true to its core philosophy of "making the world safer, smarter, and more convenient". We have established a strategic ecosystem that spans the entire industry chain, from key artificial intelligence algorithms to intelligent sensors, and from smart manufacturing to intelligent control hubs, and to cloud-edge-device connections. Through continuous technological innovation and scenario-based applications, we effectively empower urban governance, improve the quality of life for citizens, and drive the transformation toward a green, low-carbon, and highly intelligent society, contributing to the development of a sustainable smart city ecosystem.

Our Actions

- Efficient traffic management
- Guarantee of safe mobility
- Low-carbon and eco-friendly solutions

- Smart and livable communities
- Industry-wide digital and intelligent collaboration

3 GOOD HEALTH AND WELL-BEING

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

Our Achievements

Our slope stability monitoring solution was selected as part of the "open-competition based project leader selection" program of the Ministry of Transport.

We successfully entered the Central Asian market by undertaking the Smart Transportation Project of A380 Highway in Uzbekistan.

We supported the Guizhou Provincial Transportation Emergency Command Center Platform in ensuring smooth and efficient transport during the Spring Festival.

We developed a full-stack "Air-Ground-Cloud-Network" solution system.

Enabling a Smarter, Better World | Creating a Highland for Industrial Innovation | Enabling Employees to Grow and Achieve Their Potential | Joining Hands to Build a Harmonious Ecosystem | Achieving Stable Operation of the Business

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Efficient Traffic Management

Amid the fast-paced evolution of technological and industrial revolutions, the transportation industry is entering the era of data intelligence. By leveraging real-time traffic monitoring, traffic flow prediction, and optimized signal control, the intelligent, data-driven transportation system can improve the transportation efficiency and reduce traffic congestion. Drawing on years of experience and cutting-edge technology, China Transinfo integrates AI and big data technology to support the establishment of a safe, efficient, intelligent, and eco-friendly multimodal transportation network, thus improving the travel experience for the public.

Integrated Vehicle-Road-Cloud System Drives Smart City Development

As one of the pioneers in vehicle-road collaboration and autonomous driving technology in China, China Transinfo has taken the lead in developing an integrated solution spanning from the vehicle end to the roadside, and from the product level to system-level cloud-edge-device integration. At the same time, the Company actively conducts testing and pilot applications of intelligent connected vehicle-road collaboration.

As China is accelerating the nationwide pilot application of the integrated vehicle-road-cloud system in intelligent connected vehicles, China Transinfo has provided customized, region-specific solutions for pilot cities of the integrated vehicle-road-cloud system. Leveraging its expertise in big data application and management, we integrate both dynamic and static urban information, break down data silos across departments and industries, and achieve trans-department, multi-industry, and cross-regional data sharing and centralized management, laying a solid foundation for the advancement of intelligent urban transportation and management. By eliminating data silos, we ensure that "smart roads" effectively support "intelligent vehicles". At the same time, by focusing on the development of autonomous driving functions for public service vehicles (such as buses and street sweepers), we have introduced a range of safety and efficiency services, including networked safety warnings for smart bus intersections and stations, vehicle collision warnings, pedestrian collision warnings, blind spot warnings, curve warnings, and signal priority. Additionally, we have enhanced regional parking efficiency with intelligent connected Automated Valet Parking (AVP) technology and added streamlined retrofitting of standard vehicles to support assisted driving and AVP functions. By integrating vehicle-road collaboration and other cutting-edge technologies into diverse urban environments, we have set a new benchmark for the intelligent connected transportation industry.

Ningbo, selected as a pilot city for the Smart Vehicle Infrastructure and Mechanism Construction Project by the Ministry of Housing and Urban-Rural Development, has successfully developed a 15.3-km open-road testing route for intelligent vehicle in the Hangzhou Bay New Area. The city has deployed 10 vehicles equipped with autonomous driving and driver assistance functions, and established a regional intelligent connected cloud control platform to support various applications, including autonomous driving testing, smart buses, automated parking, and smart parking lots. This initiative has laid the groundwork for the development of smart vehicle infrastructure and system mechanisms, and preliminarily established an integrated vehicle-road-cloud application system. In 2024, China Transinfo helped the pilot areas in Ningbo develop intelligent road infrastructure and a smart mobility platform. It conducted demonstrations of various applications, such as AVP, AVP parking lot testing, and open-road trials for smart vehicles and smart mobility solutions, gaining replicable and scalable experience. It drove the integration of dynamic (traffic, mobility, etc.) and static (buildings, roads, etc.) urban data, and improved the city's intelligent infrastructure and management capabilities, thus laying a strong foundation for the development of digital cities.
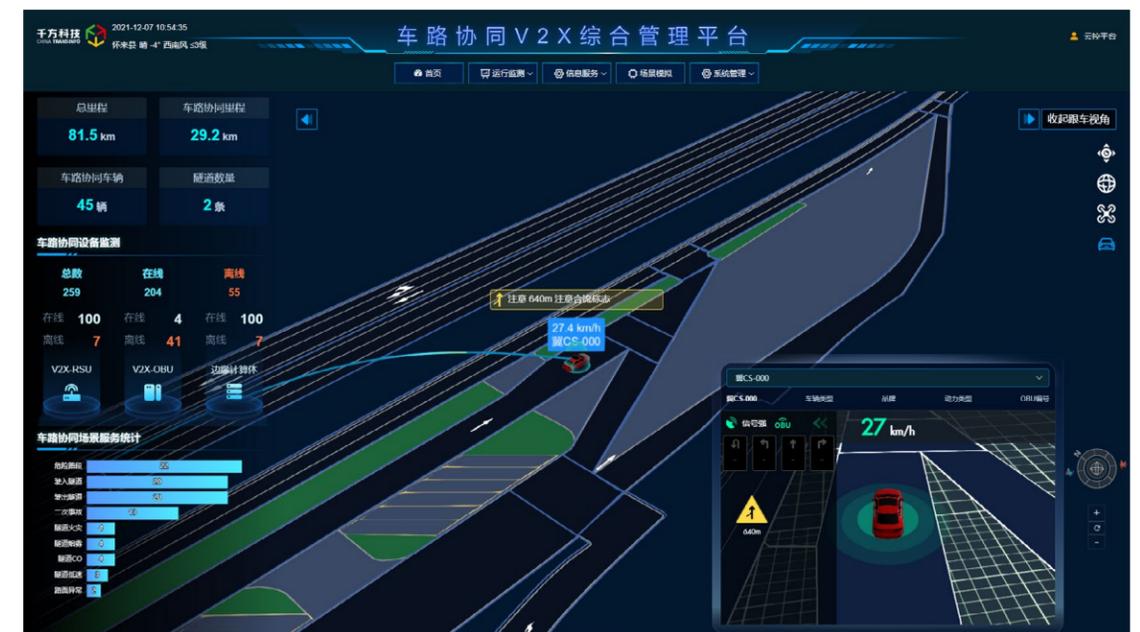
Case

China Transinfo Builds A Standard Model Roads for Smart Highways

The Yanqing-Chongli Expressway, a key part of the northwest highway corridor in the Beijing-Tianjin-Hebei transportation integration project, served not only as the main route for transporting athletes and staff between Beijing and Zhangjiakou during the Winter Olympics but also as a convenient travel link between Beijing and the northeastern part of Zhangjiakou. It plays a significant role in improving the highway network in Hebei Province, promoting the coordinated development in Beijing-Tianjin-Hebei region, and driving tourism and economic and social development along the route.

In the Project of Smart Highway System for Hebei Section of Yanqing-Chongli Expressway, China Transinfo has achieved several innovative achievements in the development of the "Integrated Road and Traffic Collaboration System". In accordance with the requirements for vehicle-road collaboration pilot project of the Ministry of Transport and the specific demands of the Beijing Winter Olympics, we conducted a thorough analysis of the complex terrain, dense network of bridges and tunnels, elevation changes, and unusual climate changes along the Hebei section of Yanqing-Chongli Expressway. By using cutting-edge technologies such as radar sensing and 3D measurable real-world imagery, we achieved precise sensing and collection of traffic data along the Hebei section of Yanqing-Chongli Expressway, as well as full-track target tracking and positioning. In addition, we applied technologies such as vehicle-road information exchange, risk monitoring and early warning, as well as traffic flow monitoring and analysis, providing real-time, accurate road and traffic information to passing vehicles.

On certain sections of the tunnel, based on the existing sensing equipment, we further collected various types of sensory data inside the tunnel, including gas concentrations, light conditions, weather conditions, road surface status, smoke, flames, and real-time traffic flow. After processing and analyzing the data on the vehicle-road collaboration platform, we sent warning messages to connected vehicles via RSUs, thereby effectively validating the application of vehicle-road collaboration in highway tunnel scenarios. In the future, this section will support Level 4 autonomous driving at a speed of up to 80 km/h, as well as vehicle-road collaboration testing based on the cellular network technology. It will also carry out demonstrations of autonomous vehicle platooning, providing a smarter and more reliable environment for long-distance testing and operation and paving a way for the commercialization of autonomous driving.

The smart highway construction project for the Hebei section of the Yanqing-Chongli Expressway successfully established a "standard model road for smart highways" characterized by full coverage of IoT monitoring, vehicle-road collaboration on open road sections, intelligent guidance for extra-long tunnels along the whole route, and full coverage of Beidou satellite signals.

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The Traffic Operation Center Platform Empowers Digital Urban Traffic Management

By building a big data infrastructure platform, China Transinfo has integrated data resources from the transportation industry and established standards for clock synchronization, unified coordinate systems, and the aggregation of various data. This process achieves spatiotemporal data fusion and analysis, supporting comprehensive road network monitoring, all-around intelligent early warning, full-process command coordination, and holistic smart traffic management. With digital technologies, it has significantly enhanced urban traffic management and service levels.

Guizhou Provincial Transportation Emergency Command Center Platform

With the overarching goal of establishing a comprehensive transportation operation command center characterized by business integration, intelligent collaboration, high-quality services, and distinctive features, a new "three-in-one" framework which comprises the Guizhou Transportation Information Hub, the Industry Service Center, and the Collaborative Response Center was established as part of the project of Guizhou Provincial Transportation Emergency Command Center Platform. This framework is designed to provide comprehensive services for management decision-making, industry operations, and public travel while enabling the aggregation, connectivity, and utilization of transportation information resources in the whole province, thus fully promoting the integration of emerging technologies such as big data, artificial intelligence, and edge computing with the transportation sector, and providing strong support for Guizhou's contribution to national transportation development.
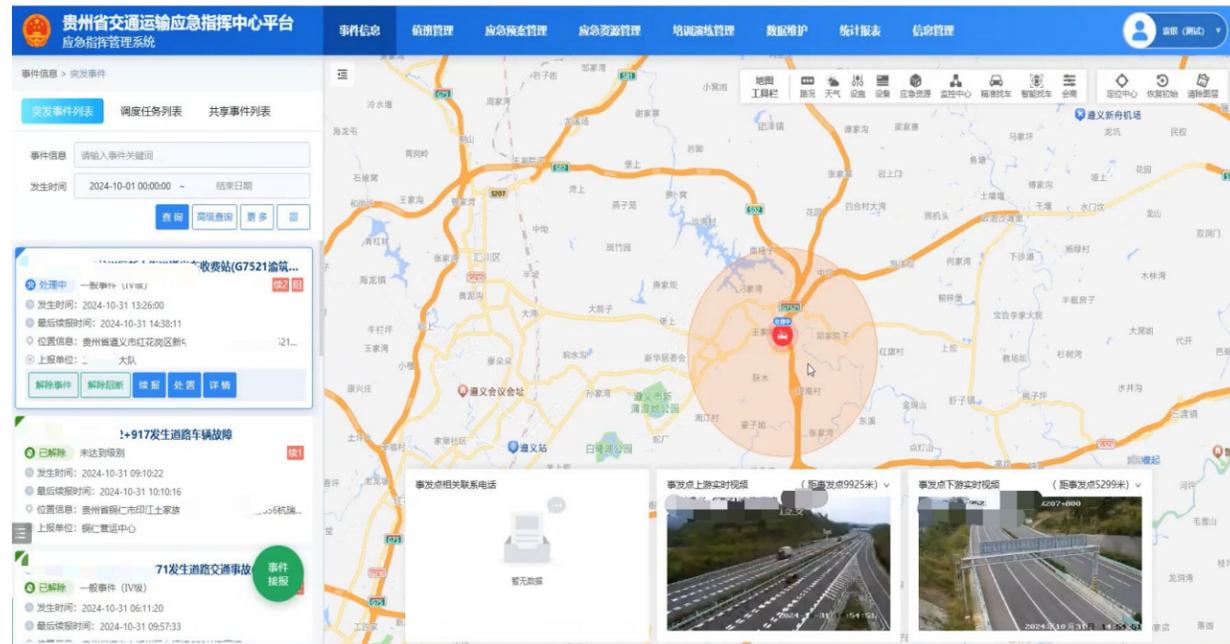
Screenshot of the emergency response system at Guizhou Provincial Transportation Emergency Command Center Platform

Integrating Resources to Build a Provincial-level Transportation Data Hub

Based on its big data platform technology, China Transinfo has built a provincial-level transportation data hub, and achieved the aggregation of multi-source data from the transportation industry, covering over 10 business domains, including highway network, road transport, and water transport. It has integrated multi-source data through the spatiotemporal fusion algorithm and built a "one-map" provincial transportation resource exchange hub, which supported one-click retrieval and visual display.

Focusing on Needs to Improve the Comprehensive Service Capabilities of the Transportation Industry

China Transinfo has strengthened the refined monitoring of weather, meteorological conditions, and road events according to the unique terrain and climate of Guizhou. Through multi-dimensional data fusion and analysis, it has established a data-driven comprehensive decision-making service system for the industry, providing all-around information support for management departments. It has also integrated and upgraded the 12328 system to disseminate traffic conditions, weather information and other information through multiple channels, providing the public with accurate information and smart services. Besides, it has developed a "Sunshine Rescue" mini-program to improve rescue efficiency and transparency, thus enhancing the safety and service levels of highway travel.

Following the Business-oriented Principle to Integrate a Multi-level Emergency Command Management System

Based on the emergency management system of Guizhou province, China Transinfo has established an integrated reporting system that combines incident reporting, roadblock management, and control, and integrated multi-dimensional information, such as emergency rescue teams and resources, to enhance emergency command and dispatch capabilities. By virtue of Guizhou Provincial Transportation Emergency Command Center Platform, the Company has streamlined the emergency response team's reporting channels through the unified reporting system. It allowed for direct dispatch of personnel from the Provincial Emergency Command Center to the frontlines, thereby reducing the response time for emergencies and enhancing the overall emergency response capabilities.

Creating Innovative Scenarios to Fully Explore the Value of Data and Develop Digital Productivity

With a business-driven approach, China Transinfo has promoted deep integration of new technologies and established a data-driven intelligent production model. By building integrated transportation and tourism analysis scenarios, it has streamlined cultural and tourism flow data, providing decision support for road network operation management. It has also created a precise vehicle location system for highways, achieving one-click replay of vehicle trajectories and improving work efficiency. By establishing key vehicle monitoring scenarios, it has accurately analyzed the traffic flow to strengthen the fine management of key vehicles and enhance safety supervision effectiveness.

As of the end of December 2024, over 28 billion structured data entries had been accumulated for this project, covering more than 10 business domains including highway networks and road transportation. This fully streamlined the emergency response reporting channels for over 400 emergency teams, totaling approximately 8,000 personnel, covering grassroots communities, districts, cities, and provinces, and reduced the time for handling emergency events, from initial reporting to command center review and dispatch, to within 3 minutes. Through the integration and analysis of data from meteorological observation points, road network GIS, and other sources, the project improved the emergency response speed under severe weather conditions.

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Wuhan Comprehensive Transportation Operation Center Platform

As the only pilot provincial capital city for the building of the nation's strengths in transport, Wuhan urgently needs to build a digital transportation system. Following the principles of "user-centered approach, principle of moderate advancement, overall planning, and phased implementation", the project of Wuhan Comprehensive Transportation Operation Center Platform established a "1+5+N" framework which consists of 1 transportation operation management platform and 5 core business areas (i.e., infrastructure, transportation services, industry governance, traffic enforcement, and safety & emergency response). It also developed four typical application scenarios (i.e., optimization of urban public transportation network, urban green freight distribution, taxi industry management, and dual prevention and supervision of work safety), all aimed at promoting the development of digital transportation in Wuhan.

Aggregating Cross-regional Transportation Data and Viewing the World from the Perspective of Wuhan

By integrating multi-source cross-regional data, a comprehensive transportation operation monitoring system has been established. This system introduces analytical indicators across four levels, namely, global, national, metropolitan, and municipal levels from the aspects of infrastructure connectivity, passenger and freight transport activity, etc. to assess the transportation and economic links between Wuhan and the world, the country, the metropolitan area, and the city.

Improving the Coordinated Handling Capability in the Industry Based on a Transportation Operation Management Platform

Internally, the platform integrates existing business systems to achieve coordinated handling of various incidents within the transportation system. Externally, it connects with the urban transportation center to facilitate coordinated response to transportation-related incidents across government departments, thereby improving the monitoring, early warning, and incident management capabilities of the industry.

Optimizing the Layout of Urban Delivery Infrastructure to Promote the Green Development of Urban Delivery

By integrating data from green freight delivery companies and vehicles, the platform calculates actual vehicle operating mileage, thus achieving the digital and intelligent calculation of awards and subsidies. It analyzes the vehicle travel patterns, delivery times, and other factors to assist transportation authorities in issuing electronic access permits for enterprises to operation in downtown areas, and takes multi-pronged measures to advance the green development of urban delivery.

Optimizing the Layout of Public Transit Facilities via Multi-source Data Analysis

By analyzing data from multiple sources, the platform evaluates the integration of bus, subway, and other transportation facilities and networks. Based on this analysis, it applies a "station-specific strategy" to optimize the connecting bus routes, station layouts, and operational plans, and identifies the blind spots of public transit coverage to improve the overall efficiency and service quality of the public transit system.

Improving the Taxi Service Quality Through AI Analysis and Recognition

The platform uses AI to detect taxi drivers' improper behaviors, such as smoking or using mobile phones while driving, establishes a closed-loop handling system for online warning information, and integrates management means such as service quality assessments to effectively improve the overall service quality of the taxi industry.

Establishing a Prevention and Supervision System for Effective Control of Risks and Hazards

A dual prevention and supervision system/mechanism for work safety is set up to standardize the business processes of risk management, hazard mitigation, and inspections in Wuhan. A standardized digital checklist is created for each business sector to improve the efficiency of risk and hazard identification.

Wuhan Comprehensive Transportation Operation Center Platform has made significant progress in advancing digital transportation, improving the coordinated handling capability of the industry, optimizing urban delivery and public transit infrastructure, and improving the service quality of the taxi industry in Wuhan, providing strong support for the sustainable development of the transportation industry in Wuhan.

Screenshot of the regional transportation system of Wuhan Comprehensive Transportation Operation Command Center

Screenshot of the municipal central land-sea corridor system of Wuhan Comprehensive Transportation Operation Command Center

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Transportation Operation Management Platform of Weiyuan County

By integrating the five key businesses of the transportation system in Weiyuan County, namely "engineering construction, road property and right-of-way, road maintenance, transportation operations, and dispatch management", China Transinfo has set up an integrated transportation operation management platform. This platform deeply taps into the value of transportation data resources based on four core applications, i.e., transportation operations, incident center, comprehensive inquiry, and information reporting. In doing so, it helps rapidly establish a comprehensive transportation decision-making and service system which is driven by data and based on scientific analysis.

Deep Integration of "Smart" Technologies with Transportation to Improve the Quality and Efficiency of Traffic Law Enforcement

By establishing a digital, intelligent, network-based, and systematic closed-loop law enforcement management model which features "precise information identification, efficient data processing, evidence reconstruction and analysis, and cross-regional, cross-departmental collaboration", the platform effectively addresses key issues in county-level overload control, including comprehensive overload monitoring, joint enforcement by the transportation management department and the traffic police department, targeted crackdown against violations, case handling efficiency, and overload management information services, shifting frontline law enforcement officers from indiscriminate patrols to targeted enforcement inspections.

Integration of "Systems + Platforms" to Effectively Enhance Regulatory Capabilities

By deeply integrating the new generation information technology with the transportation industry, the platform can enhance the decision-making and comprehensive analysis capabilities of the industry by means of data empowerment, problem checklist, separation of dynamic data from static data, and coordinated handling. This can create a more convenient travel environment for the public and increase their sense of well-being. It can also meet their personalized and diverse transportation needs, and encourage green, low-carbon mobility, thereby promoting the optimization and adjustment of the transportation structure.

### A "Traffic Brain" Improves the Level of Data Application Significantly

With the goal of "unified development and shared use, data empowerment, and scenario-driven growth", the platform establishes a county-level "Traffic Brain", which drives the transformation of management resources from fragmented, chimney-style development to systematic, standardized, and unified development and shared use. This, in turn, helps drive the transition of transportation from traditional factor-driven models to digitally innovation-driven models, from serving a single industry to serving the integrated transportation industry, and from merely supporting industry management to upgrading services for the public, benefiting enterprises, supporting grassroots, and improving governance efficiency.
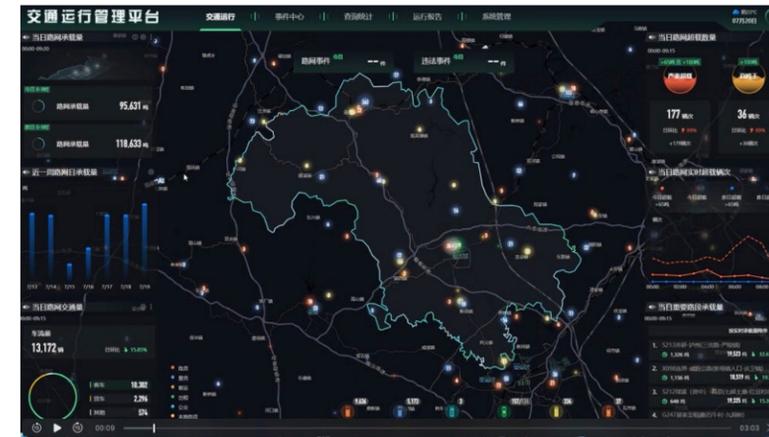
Screenshot of the transportation operation system at the Transportation Operation Management Platform of Weiyuan County

Screenshot of the overload warning image system of Traffic Incident Analysis Center of Weiyuan County
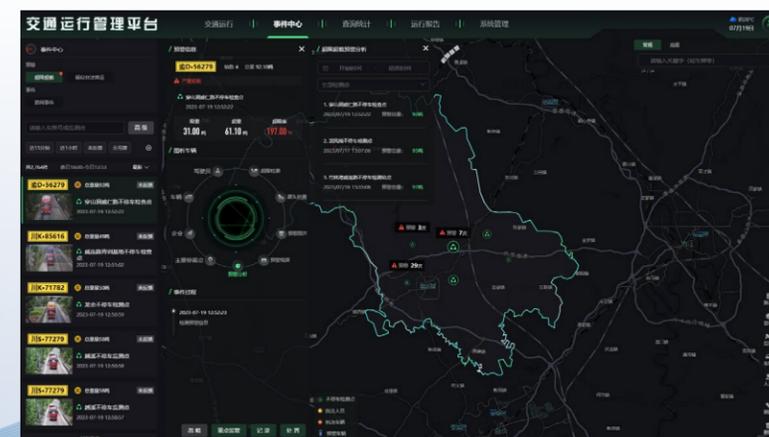
Screenshot of the overload warning analysis system of Traffic Incident Analysis Center of Weiyuan County

By the end of December 2024

the Transportation Operation Management Platform of Weiyuan County had recorded an average daily vehicle detection of over

51,000

Since the platform was launched, the truck overload rate has decreased by

22.03%

It has detected more than

30 road network incidents

generated over

200 early warnings

and helped traffic police track down violators

12 times using smart technology
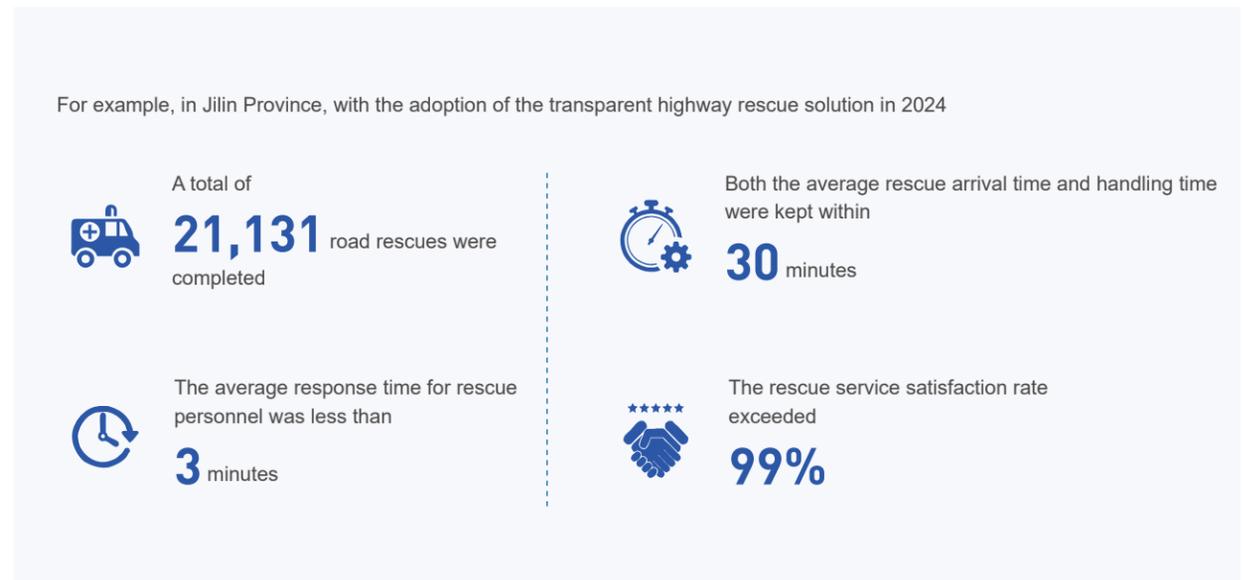
Additionally, the newly developed smart law enforcement APP, "Qionglongxing", has 7 key functions, including vehicle model and contour recognition via scanning, online simulation of driving routes, and license plate obstruction analysis. These innovations have significantly improved the traffic law enforcement efficiency and strengthened the regulatory capabilities of Weiyuan County.

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Safeguarding the Safety and Smooth Operation of Highways

The core objectives of highway development are safety, efficiency, and high-quality service. To improve the carrying capacity of highway networks and ensure all-weather mobility, the smart highway technology has become a development focus. Via advanced information technologies, including meteorological monitoring and analysis, coordinated management and control, and real-time information dissemination, China Transinfo has significantly improved its highway management and response capabilities under adverse weather conditions. This can prevent and mitigate the impact of severe weather hazards on highway safety to the greatest extent, thus ensuring all-weather accessibility of highways.

In addition, the transparent emergency rescue solution for highway introduced by China Transinfo has effectively overcome the difficulties in highway obstacle clearance. With a variety of measures and tools such as basic rescue data management, public service management, rescue work order management, user evaluation management, statistical analysis, and a solo rescuer APP, the information about highway rescue services has become more transparent, rescue calls more convenient, and rescue coordination more efficient. This provides the public with a transparent, convenient, and efficient highway vehicle rescue service, further guaranteeing the safe and smooth travel for the people.

For example, in Jilin Province, with the adoption of the transparent highway rescue solution in 2024

A total of
21,131 road rescues were completed

Both the average rescue arrival time and handling time were kept within
30 minutes

The average response time for rescue personnel was less than
3 minutes

The rescue service satisfaction rate exceeded
99%

Exploring New Markets in the Low-altitude Business Sector

Leveraging its extensive technical expertise and rich service experience in air transportation and general aviation, China Transinfo has actively expanded into the low-altitude economy sector. Focusing on the manufacturing of medium and large unmanned aerial vehicles (UAVs), as well as the development and production of counter-UAV equipment and key components, the Company has created a full-stack "air-ground-cloud-network" solution system. This system targets industries such as transportation, emergency services, firefighting, and logistics, providing integrated solutions ranging from airspace planning and infrastructure development to aviation operations. Its business scope includes low-altitude flight operations, ground infrastructure construction, AI cloud platform development, and the establishment of service assurance networks.

Expanding into the Global Smart Transportation Market

As one of the first private enterprises in China to get into highway digitalization, China Transinfo is now actively expanding into global markets with its top-notch in-house design and R&D capabilities, rich experience in project delivery, and a full lineup of mature products and services covering the entire lifecycle of highways, including construction, management, maintenance, operations, and services. As of December 2024, China Transinfo has participated in the construction of several major transportation projects in South Asia, Central and Eastern Europe, and Africa, including the Dhaka Elevated Expressway Project in Bangladesh, the Banja Luka-Prijedor Highway Project in Bosnia and Herzegovina, the Danubian Corridor Expressway Project in Serbia, the Valjevo Expressway Project in Serbia, and the New Luanda International Airport Project in Angola.

Case

Smart Transportation Project of A380 Highway in Uzbekistan

In February 2024, China Transinfo, in collaboration with China Machinery Engineering Corporation (CMEC), signed a cooperation agreement with the Road Committee of the Ministry of Transport of Uzbekistan for the Smart Transportation Project of A380 Highway in Uzbekistan. This marks China Transinfo's first venture into the Central Asian market, representing a significant step forward in its global expansion strategy.

The A380 Highway runs through Kungrad district of Uzbekistan and is currently the country's highest-standard road under construction. As a key part of the Central Asian economic corridor, the A380 Highway not only serves as a major route connecting Uzbekistan's urban areas with rural areas but also functions as an international passage linking the country to Kazakhstan and the Caspian Sea region. This corridor stretches across Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, and China, playing a vital role in boosting the economic growth in the region.

China Transinfo, in collaboration with CMEC, was jointly responsible for the comprehensive planning and design, software development, operation, and maintenance, as well as hardware supply and installation for the smart transportation system for A380 Highway. The introduction of China Transinfo's advanced smart transportation products and services will greatly improve the information technology-based management level, traffic safety index, and traffic flow of A380 Highway, laying a solid foundation for the overall improvements of local transportation conditions.

China Transinfo signs the cooperation agreement with the Road Committee of the Ministry of Transport of Uzbekistan

Case

Valjevo Expressway Project in Serbia

The Serbia Valjevo Expressway stretches about 18.3 km, with a design speed of 100 km per hour. Upon completion, the travel time from Valjevo to Belgrade, the capital of Serbia, will be reduced to under an hour, significantly improving the connectivity and promoting balanced development between the cities and regions in Serbia. This project lays a solid foundation for Serbia to become a major logistics and transportation center in Southeastern Europe.

The Serbia Valjevo Expressway is constructed according to the highest European standards. Throughout the construction process, China

The President of Serbia inspects the Valjevo Expressway constructed with the involvement of China Transinfo

Transinfo successfully overcame the differences in technical standards and cultural environments. The core systems, including smart lighting and smart power supply that China Transinfo participated in building, have successfully completed electrical testing and grid connection on key sections, providing strong support for the full connectivity of the expressway.

In addition, the smart video management system developed by China Transinfo has been successfully deployed and put into use at the camp and construction sites of the Danubian Corridor Expressway in Serbia. The system integrates multiple functions, including camp site video management, construction site video management, video storage, and video switching, designed to fully meet the security management needs of the camp. Additionally, it supports remote wireless real-time monitoring and data transmission at construction sites, effectively improving the level of intelligent management and digital construction.

The smart camp site of Danubian Corridor Expressway constructed with the involvement of China Transinfo

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Guarantee of Safe Mobility

China Transinfo continues to introduce innovative solutions, establishes a smarter, more eco-friendly, and safer travel environment with digital technology, and guarantees road safety on all fronts with comprehensive digital intelligence support across all scenarios and the entire process.

The slope stability monitoring solution launched by the Company in 2024 was selected as part of the "open-competition based project leader selection" program of the Ministry of Transport. This solution, which is based on the fiber optic sensing technology and BeiDou technology, has established a sound slope safety monitoring system, significantly improving the ability to detect, predict, and respond to highway slope disaster risks. At the 14th China International Road Traffic Security Products Expo, the Company showcased its "Cloud Platform for Safety Supervision of Heavy-Duty Freight Vehicles" which can enable real-time monitoring of safety hazards and refined management of operating enterprises, providing strong support for the "reducing incidents and controlling major risks" initiative in traffic safety. At the same time, the AI intelligent road patrol system developed by China Transinfo utilizes the automated inspection technology, which can significantly improve the efficiency and accuracy of road defect detection while effectively ensuring public travel safety.

Case

China Transinfo, in Collaboration with Changchun University of Science and Technology, Develops the "Octopus Optical Fiber Probe & BeiDou" Slope Stability Monitoring Solution

China Transinfo and the School of Optoelectronic Engineering of Changchun University of Science and Technology conducted in-depth cooperation, both leveraging their respective technical strengths. Changchun University of Science and Technology provided its independently developed distributed optical fiber micro-nano sensing and early warning technology and BeiDou GNSS & optical fiber probe sensing equipment, while China Transinfo developed an alarm and early warning software system tailored for slope stability monitoring based on its experience in building smart transportation software systems. Ultimately, both parties jointly developed the "Octopus Optical Fiber Probe & BeiDou" slope stability monitoring solution, achieving a mutually beneficial partnership.
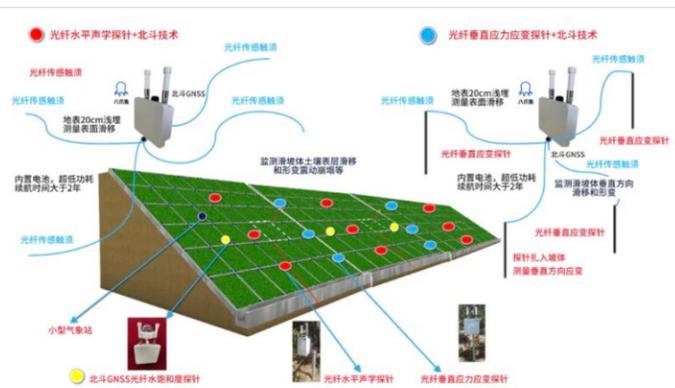
The "Octopus Optical Fiber Probe & BeiDou" slope stability monitoring solution integrates the optical fiber sensing technology and BeiDou technology, forming a sound slope safety monitoring system. By deploying optical fiber sensors, the system can achieve comprehensive, multi-level monitoring, detect slope deformations in real time and issue early warnings. At the same time, with BeiDou technology, it provides high-precision positioning and integrates with roadside cameras, allowing people to view road conditions in the affected area in real time. This can improve the accuracy and efficiency of slope monitoring, reduce the manual inspection costs, and strengthen the early warning and management efficiency for highway slope hazards. The solution was successfully selected as one of the first 31 nationwide application demonstration projects. It received high scores in the application evaluation and passed the expert review. It was invited to participate in the National Highway Monitoring and Early Warning Application Technology Exhibition held in Dunhuang, providing valuable experience and insights for highway slope monitoring and early warning.

The "Octopus Optical Fiber Probe & BeiDou" slope stability monitoring solution of China Transinfo has been applied as a demonstration project for slope health monitoring on some selected sections of the G12 Hunchun-Ulanhot Expressway. As of December 31, 2024, it had generated 23 million monitoring data entries, providing support for slope stability analysis and assessment while helping to ensure road and traffic safety along this section.

Case

The Cloud Platform for Safety Supervision of Heavy-Duty Freight Vehicles of China Transinfo

The Cloud Platform for Safety Supervision of Heavy-Duty Freight Vehicles of China Transinfo can receive data services sent by the National Public Supervision and Service Platform for Roads and Freight Vehicles in real time and provide dynamic location data of heavy-duty trucks within its monitored area. Based on the dynamic location information of heavy-duty trucks, the platform can establish standardized data models and automated data processing workflows to identify various violations when the truck is in motion. It can analyze and detect real-time violations within designated areas, including speeding, fatigued driving, excessive speed, abnormal parking on highways, low-speed driving on highways, road restrictions in urban areas, and illegal parking in urban areas. The platform has played a crucial role in ensuring road traffic safety, reducing traffic accidents, and improving the safety of drivers and pedestrians.

Case

AI Intelligent Road Patrol System of China Transinfo

The AI intelligent road patrol system developed by China Transinfo uses its vehicle-mounted terminal to collect road surface image data and performs AI image analysis through edge computing. It can accurately and efficiently identify and detect road safety risks and defects, and upload the data to the cloud via 5G/4G/Wi-Fi communication networks. By combining high-precision positioning and defect analysis data, it can carry out road defect detection and visualize the results with mapping displays. The system is designed to promptly detect and provide early warnings for road surface defects such as transverse cracks, longitudinal cracks, block cracks, crocodile cracking, potholes, loosened surfaces, and road subsidence, offering science-based decision-making support to road management authorities, improving road maintenance efficiency, and ensuring the public travel safety.

Case

Railway Safety Protection in Qingdao Railway Inspection Project

Vertical take-off drones featuring high-endurance were used in Qingdao Railway Inspection Project, which can achieve 2-hour, 80-km beyond-visual-line-of-sight continuous operations. Equipped with a millimeter-wave radar and a visible light fusion detection system, the drones can autonomously identify debris, floating objects, and other anomalies up to 500m from the tracks using AI technology, and automatically generate inspection reports, significantly improving the inspection efficiency and ensuring the safe operation of the railway.

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Case

China Transinfo Undertakes the Project of Phase II Model for Safety Risk Quantification of Flight Test of Commercial Aircraft Corporation of China (COMAC)

The Civil Aircraft Flight Test Center (referred to as the "Flight Test Center") of COMAC is the only professional verification institution for civil aircraft flight test in China. It primarily undertakes the flight tests for scientific research, certification, production and delivery for the aircraft developed by COMAC, a key central state-owned enterprise engaged in the development of domestically produced large aircraft. As the scale development of domestically produced large aircraft enters a new phase, a corresponding assessment system for flight test safety risk needs to be established to comprehensively identify and quantitatively assess safety risks with the help of information technology, thus ensuring the safe and efficient completion of flight test missions.

With the flight test system as the research subject, it utilizes big data mining technology and an expert knowledge base to comprehensively analyze the risk factors across the entire flight test business chain. It also conducts quantitative analysis of safety risks from four dimensions (i.e., flight test personnel, test environment, test subjects, and the aircraft being tested), generates risk indices dynamically and produces risk warning solutions to assist the Flight Test Center in evaluating flight test safety risks on all fronts.

Once the model is launched, it will assist the Flight Test Center in achieving two major applications, i.e., pre-flight risk assessment and post-flight quality analysis. Before the flight, it can provide flight risk value queries, detailed flight risk information queries, flight risk trend predictions, and other functions to intelligently decide whether the flight is suitable for departure. After the flight, it can provide safety personnel with records of risk mitigation measures, historical data records with regular comparisons, manual modification of risk factor thresholds, and other functions, offering effective support for flight quality monitoring.

Case

Project for Building a Vehicle-mounted Drone Airport on Guangdong Highway

The Project for Building a Vehicle-mounted Drone Airport on Guangdong Highway will establish an innovative mobile aerial operation system. It deeply integrates 5G communication and intelligent equipment technologies, deploying customized vehicle-mounted battery exchange airports, cloud control platforms, and command systems to achieve automatic drone takeoff and landing, fast battery swapping, and remote precise control. The equipment is connected to the Group's unified management & control platform, which can improve operational efficiency and quality, enhance emergency response capabilities, and promote the application of drone technology in areas such as inspections and emergency rescue.

Low-carbon and Eco-friendly Solutions

China Transinfo consistently practices the concept of green and low-carbon development. It drives the low-carbon transition of the transportation industry through digital technology innovation, builds an intelligent and efficient green travel system, and continuously contributes to the fulfillment of the "dual carbon" goals. In the low-carbon field, it innovatively upgraded its smart parking solutions to the integrated parking and charging system, launched solutions such as charging stations for new energy vehicles and wireless charging for two-wheeled vehicles, and provided whole industry chain services from investment and financing to construction and operation. At the same time, it established a joint venture with SEPCO Electric Power Construction Corporation (hereinafter referred to as "SEPCO"), and deepened their cooperation in parking and charging/swapping, promoting the integration of transportation and energy. In terms of ecological protection, it utilized smart monitoring technology to assess and protect the ecological environment and wildlife in the real time, establishing a new ecological conservation system empowered by science and technology.

Case

Integrated Parking and Charging Solution for New Energy Vehicles

In the era of new energy, the integration of parking and charging has become an essential requirement for urban infrastructure development. With a focus on parking planning and management as well as charging network development, China Transinfo has upgraded its original city-level smart parking solution to the "Integrated Parking and Charging Solution for New Energy Vehicles of China Transinfo", thus providing whole industry chain services, including investment and financing, products, construction, and operations. This solution enables China Transinfo to tailor the optimal development model for the parking and charging industry based on the differentiated needs of each city, optimize urban parking management, and improve the allocation of urban charging infrastructure resources.

Following a "cloud-edge-device" technology approach, China Transinfo has independently developed a comprehensive management cloud platform, edge computing units, various parking terminal products, and a full range of charging pile products. The license plate recognition cameras and AI charging pile products launched by Uniview can detect the color of license plate to control the raising and lowering of parking locks, preventing fuel vehicles from occupying charging spots and improving the turnover rate of charging points. These products can perform temperature monitoring using infrared thermal imaging cameras or provide smoke and fire alarms through a common camera combined with an AI edge intelligence analysis unit, providing support for fire safety protection. The common camera combined with an AI edge intelligence analysis unit can also detect and disperse crowd gatherings, identify and alert for exposed trash in the area, and monitor and alert for vehicle congestion in lanes. This can help charging station operators achieve unmanned site management, improving the user experience and operational efficiency.

Leveraging its city-level parking cloud platform, China Transinfo can provide application services in the field of urban digital operations for parking fee management, municipal transportation, safety supervision, and urban appearance and landscape management. At the same time, leveraging its standardized operational management capabilities and ecosystem advantages, China Transinfo can provide intelligent parking and charging fee management services, as well as aftermarket services, and establish a holistic "People · Vehicle · Life" parking operation and management ecosystem for charging stations to add value to operational management.

Case

Innovating A Wireless Charging Model for Urban Electric Bicycles, Driving the City's Green Development

China Transinfo has developed a wireless charging solution for electric bicycles based on weak electromagnetic resonance technology. This model is currently being tested in cities like Yichun of Jiangxi, and Hohhot of Inner Mongolia, with plans for gradual rollout. In the pilot program in Yichun (Jiangxi Province), 17 sets with 170 charging points were deployed, while in Hohhot (Inner Mongolia Autonomous Region), 10 sets with 100 charging points were set up. The monthly reuse rate among users reached 80%. In the future, 4,000 charging points will be set up nationwide, with an estimated 250 million charging services provided per year.

The wireless charging system for urban electric bicycles can fundamentally address the safety hazard in charging electric bicycles. With a unified network for charging services, standardized management, and resource integration, it has built a firewall for urban safety. This system can ensure that citizens have access to safe and convenient charging, lower both the charging cost for users and the operational expense for enterprises and improve the operational efficiency, playing a positive role in promoting the green development of cities.

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Case

Promoting the Electrification of Heavy-duty Trucks with Green Energy

China Transinfo has actively responded to the national strategy for green transport and the integration of transportation and energy. It has built one-stop charging and battery swapping infrastructure for heavy-duty trucks in locations such as mines, port terminals, and logistics parks, providing one-step services covering the whole process such as solar energy storage, charging and battery swapping, battery leasing, transportation capacity support, and intelligent scheduling. On the concentrated limestone transportation route for the alkali industry in Delingha City, western Qinghai Province, 1 battery swapping station has been completed, with plans to construct 12 more. The model of vehicle-to-battery separation and charging during off-peak hours can greatly reduce the energy cost, help logistics companies lower costs and improve efficiency. They can also advance the electrification of heavy-duty trucks, promote the development of green transportation infrastructure, and boost regional economic growth.

Case

China Transinfo Cooperates with SEPCO, Jointly Boosting the Green and Integrated Development of Traffic and Energy

In December 2024, China Transinfo signed the *Investment Cooperation Framework Agreement* with SEPCO Electric Power Construction Corporation ("SEPCO" for short). According to the agreement, both parties will collaborate closely in areas such as capital, technology, and business, and establish a joint venture for investment, construction, and operation businesses in the field of new energy parking, charging and swapping infrastructure, jointly boosting the green, integrated, and high-quality development of transportation and energy. According to the agreement, both parties will fully collaborate on auxiliary integrated service facilities, including charging piles/stations, heavy-duty truck charging and battery swapping, urban parking, electric bicycle charging, and related vehicle (charging) aftermarket services.

SEPCO and China Transinfo sign a cooperation agreement

Case

Protection of Fish in the Yangtze River, Ten-year Fishing Ban in the Chishui River Basin

Chishui River is the only large river with a natural watershed in the upper reaches of the Yangtze River. As part of the ten-year fishing ban program in the Yangtze River, Chishui River became the first river in the Yangtze River basin to implement a comprehensive fishing ban. Uniview provided over 200 starlight laser PTZ cameras, a comprehensive management platform, storage systems, and LED display systems for the command center, along with technical capabilities such as algorithm development to actively support the fishing ban work in Chishui River, protect the national natural reserve for rare and endemic fish species in the upper reaches of the Yangtze River (Chishui River section), and safeguard endemic fish species such as Yangtze sturgeon, Myxocyprinus asiaticus, and Procypris rabaudi.

Case

Protecting the Tibetan Plateau

Detecting forest fires and protecting the green homeland with intelligent means. In the northeastern part of the Tibetan Plateau, the forests in Hainan Prefecture span millions of acres, with numerous mountains extending endlessly, lush and vibrant. More than 110 species of wild birds inhabit this area. Uniview provided a complete set of thermal imaging PTZ camera systems and forest fire visual command and dispatch systems for 32 forest areas in 5 counties and cities in Hainan Prefecture, helping with forest fire prevention through science and technology and protecting the birds. Since then, the desert has turned into a forest, and the national first-class protected animal, Felis bieti, has been discovered. The dual-spectrum, high-precision PTZ camera can accurately identify and locate high-temperature heat sources. The backend forest fire prevention platform can send real-time warning information, and together with the indoor large screen and mobile APP, they establish real-time coordination between the command center, search personnel, and firefighting teams to ensure timely response to fire incidents and help prevent potential fire threats. In Yunnan, Inner Mongolia, Shaanxi, Guizhou, Jilin, and many other mountainous and forested areas across the country, the forest fire prevention solution developed by Uniview is playing a great role. It has been deployed in over 200 locations, intelligently monitoring forest fires and protecting the birds in the mountains.

The national first-class protected animal, Felis bieti, is spotted in Tongde County, Hainan Prefecture

Senior Vice President and Global Director of Communications of IFAW personally visit Uniview to express their thanks to the engineers of Uniview for their contributions to wildlife protection

Smart and Livable Communities

China Transinfo is committed to building a harmonious and livable urban environment. It strengthens the refined management of cities and drives the development of smart cities leveraging its technological strengths. In 2024, China Transinfo introduced the KunChao · Edge Station, a lightweight intelligent intersection edge application product, achieving the unified coordination and optimized control of traffic signal controllers of various brands. In the "KunChao" product series, the KunChao · Intelligent Intersection, which focuses on the comprehensive management of intersections, has been upgraded from "Intelligent Connectivity + Smart Transportation" to the 3.0 version of "Intelligent Connectivity + Smart City". This upgrade introduces new functions such as non-local license plate analysis and delivery vehicle monitoring and analysis to meet the smart city development needs such as public safety management. At the same time, Uniview's smart parking cloud platform has effectively addressed the parking issues arising during rapid urban development.

Case

KunChao· Edge Station Improves the Efficiency of Comprehensive Traffic Management

KunChao· Edge Station is a lightweight edge application product launched by China Transinfo for intelligent intersection design. It features low cost and high integration, a compact size, cloud-edge collaboration, strong environmental adaptability, and easy deployment and maintenance. By utilizing existing signal controllers and traffic enforcement cameras, it can seamlessly integrate AI algorithms to establish a closed-loop work flow for intersection perception, evaluation, optimization, and control. It also supports the coordinated and optimized control of multi-brand traffic signal controllers under a unified algorithm and protocol, which significantly reduces the maintenance costs and improves the urban traffic management efficiency.

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Case

Uniview's Smart Parking Cloud Platform Helps with Efficient Emission Reduction

With the rapid development of cities, parking has become a significant challenge for both residents and administrators. Uniview's smart parking cloud platform has introduced four new business functions, including cloud-based playback for smooth event review, intelligent identification of vehicle detention and turns to ensure fair charging, ETC contactless payment for fast exit, and LCD advertising for additional revenue generation. The platform has effectively met the core needs of reducing costs, improving efficiency, and increasing revenue. These functions have not only increased the owners' willingness to adopt new technologies, but also brought convenience to the society by ensuring quick vehicle entry and exit, reducing the waiting time, and decreasing low-speed motions, which effectively lowers exhaust emissions and promotes the sustainable development of urban environments.

Industry-wide Digital and Intelligent Collaboration

Based on specific scenarios, China Transinfo has accelerated the exploration and application of AI technology, driven the development of computational infrastructure and established an integrated system of "data + algorithms + computing power", which have expanded the application scenarios of intelligent computing on all fronts. At the 2024 World Internet Conference Wuzhen Summit, China Transinfo, as an enabler in the "big transportation" scenario, explored the application of space-based intelligent computing in collaboration with its ecosystem partners. At the same time, China Transinfo, in collaboration with leading domestic manufacturers, established a foundational platform for domestic intelligent computing and provided strong support for clients in this industry through its application platform.

China Transinfo, in collaboration with Beijing Institute for General Artificial Intelligence, has established a traffic intelligence system with strong cognitive abilities and multimodal interaction based on its large model of transportation. This system achieves the analysis, perception, and decision-making management of all traffic elements, thereby improving the safety, efficiency, and intelligence level of road services.

Uniview has upgraded its AIoT large model-based industry model "Wutong" to version 2.0, which further enhanced its inference capabilities. Leveraging its extensive experience in serving over 700 universities in the campus security field, Uniview has expanded its businesses into the education and sports sectors. It has launched products and solutions such as the AI Physical Fitness Screen and AI Running Screen based on the "Wutong 2.0" model for five key areas, including teaching, exercise, testing & training, matches, and assessment. These products and solutions have been implemented in nearly 500 schools across the country, assisting in the intelligent upgrade of physical education teaching.

China Transinfo, along with its ecosystem partners, explores the application of space-based intelligent computing during the World Internet Conference Wuzhen Summit in November 2024

Case

China Transinfo's Large Model-based Traffic Application Development Platform

The large model-based traffic application development platform is a comprehensive and customizable platform for intelligent dialogue solutions based on the large model technology. It establishes a comprehensive system that integrates backend management, service delivery, logic processing, model switching, and data management using cutting-edge technologies such as deep learning, natural language processing, and big data analysis, allowing users to create diverse dialogue projects based on specific needs. Each project can independently configure resources, basic knowledge, sensitive word libraries, example questions, and knowledge bases, ensuring the accuracy and relevance of the dialogue content. The platform has an intuitive and user-friendly interface, supporting users to easily obtain the information they need through natural language dialogues, which can greatly improve the information retrieval efficiency and user experience. It can help enterprises or individuals quickly build and optimize intelligent dialogue systems for various topics, achieving efficient and accurate information exchange and knowledge services.

Case

AI Digital Human Technology of China Transinfo

AI digital human technology deeply integrates artificial intelligence technology with multi-scenario applications to drive intelligent interactions and collaborative innovation. Using technologies such as natural language processing, computer vision, and deep learning, the AI digital human can provide highly realistic interactive experiences, breaking the limitations of traditional service models. At the same time, the AI digital human can continuously adapt to new scenarios and demands through ongoing learning and self-evolution. It has become a key driving force for digital transformation and intelligent upgrades, bringing new innovation opportunities and value growth points to various sectors.

The AI digital human has been applied in smart transportation service scenarios, where it can serve as a travel companion, providing drivers with real-time traffic information, route planning, weather alerts, and other services to improve the travel convenience. As an intelligent customer service representative, the AI digital human can answer user inquiries, handle payment issues, and even provide multilingual support at toll stations or service areas, catering to diverse needs. This can not only improve the management efficiency and service quality of operations management organizations but also promote the comprehensive development of smart transportation. With the continuous advancement of technology, the AI digital human will play an even greater role in more specialized scenarios, providing ongoing momentum for the digital transformation and intelligent upgrading of smart transportation.

Case

Large Model "Wutong 2.0" of Uniview

The large model "Wutong 2.0" developed by Uniview is an industry-level large model designed for the AIoT field. It integrates various industry models, including computer vision (CV), multimodal interaction, and natural language processing (NLP). Compared to version 1.0, version 2.0 has a more powerful general foundation, which can significantly improve the accuracy of algorithms in the AIoT field. We have optimized the product development architecture in key areas such as data processing, model training and inference, testing, and issuance on all fronts, resulting in the improvements in several crucial aspects, including image quality, algorithm accuracy, algorithm production efficiency, service efficiency, and user experience.

In addition, we have also promoted updates and performance improvements to the entire technical architecture, covering multiple aspects such as the data platform, training and inference platform, and testing and issuance platform. This upgrade has already demonstrated its strong application potential in multiple fields, providing more possibilities of innovation for enterprises and developers.

02

Creating a Highland for Industrial Innovation

Science and technology constitute the primary productive force. China TransInfo has given full play to its pioneering and leading role and continuously improved its technological innovation management system. It has also consolidated the foundation for scientific research, deeply explored digital technology, and promoted the digital development of the industry. Besides, it has devoted itself to promoting industry transformation in the fields such as intelligent transportation, intelligent connectivity and smart IoT economy through cutting-edge technologies.

Our Actions

⊘ Consolidating the foundation for scientific research

⊘ Promoting the development of the industry

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Our Achievements

Our R&D investment was RMB 1.134 billion

We had 2,583 R&D employees

Our R&D employees accounted for 40.49% of the total employees

We owned 5,583 intellectual property rights
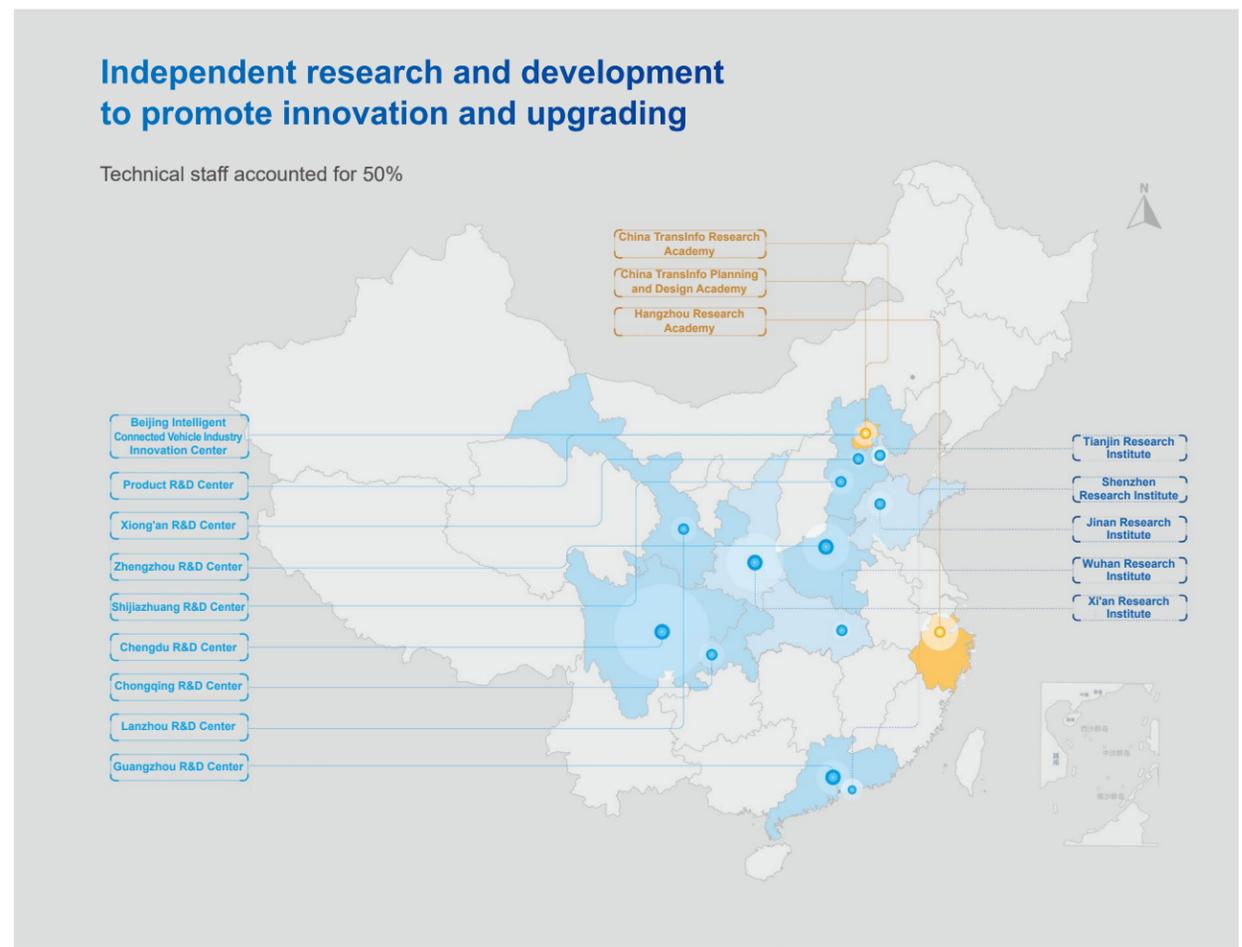
We obtained 3,208 authorized patents

We acquired 1,822 software copyrights

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Consolidating the Foundation for Scientific Research

Innovation is the core driving force for China TransInfo to achieve sustainable development. At China TransInfo, we continue to increase investment in R&D, and rely on the R&D layout of "three academies, five institutes and nine centers" to constantly break through technological boundaries and lead industry innovation. Meanwhile, we actively cooperate with research institutes, industry associations and leading enterprises, participate in the formulation of industry standards, and jointly promote industrial transformation and upgrading. In addition, we attach great importance to intellectual property protection and system construction, accelerate the transformation of innovative achievements, and ensure that technological advantages can be transformed into market competitiveness.
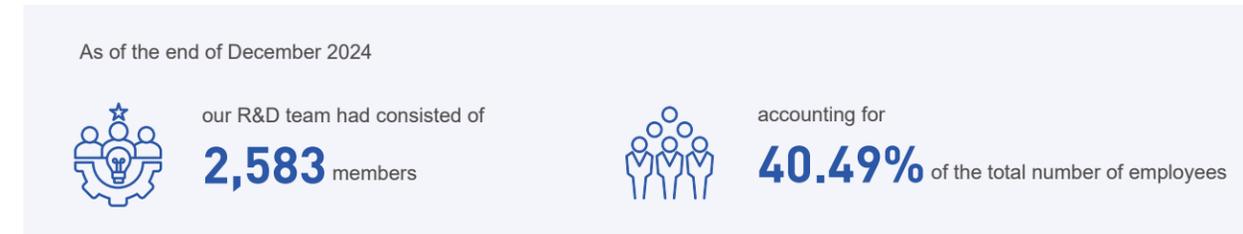
Scientific Research Innovation Management

China TransInfo continues to improve its innovation management system. To be specific, it has formulated and implemented the *Measures for Management of Scientific Research Projects* and the *Qualification Management Measures* to standardize the management process of scientific research projects and ensure efficient and orderly progress of R&D activities. It has established the R&D layout centered on "three academies, five institutes and nine centers", integrated innovative resources such as China TransInfo Research Academy, China TransInfo Planning and Design Academy, Hangzhou Research Academy and regional research institutes, continuously expanded the team of professional talents, and continuously improved R&D innovation capabilities. As a powerful proof of innovation strength, China TransInfo has R&D centers at national and ministerial levels such as the National Enterprise Technology Center and the "Intelligent Transportation Technology and Equipment" Industry R&D Center of the Ministry of Transport, as well as national laboratories accredited by CNAS.

Independent research and development to promote innovation and upgrading

Technical staff accounted for 50%

China TransInfo Research Academy
China TransInfo Planning and Design Academy
Hangzhou Research Academy

Beijing Intelligent Connected Vehicle Industry Innovation Center
Product R&D Center
Xiong'an R&D Center
Zhengzhou R&D Center
Shijiazhuang R&D Center
Chengdu R&D Center
Chongqing R&D Center
Lanzhou R&D Center
Guangzhou R&D Center

Tianjin Research Institute
Shenzhen Research Institute
Jinan Research Institute
Wuhan Research Institute
Xi'an Research Institute

Stimulating the Vitality of Innovation

China TransInfo continues to increase its efforts in R&D innovation, and comprehensively enhances its scientific research capabilities with systematic measures. At China TransInfo, we have established a comprehensive R&D talent training system, formulated management systems such as the *Incentive Measures for Employees' Professional Qualifications and Titles*, and fully stimulated the innovation vitality of R&D staff through multi-dimensional incentive mechanisms. We encourage employees to actively explore cutting-edge technologies such as artificial intelligence and vehicle-road coordination, laying a talent foundation for the continuous improvement of independent innovation capabilities. In 2024, our R&D investment reached RMB 1.134 billion, accounting for 15.64% of its operating revenue. As of the end of December 2024, our R&D team had consisted of 2,583 members, accounting for 40.49% of the total number of employees. A technology R&D team with excellent professional quality and outstanding innovation ability has taken shape, providing a solid guarantee for our continuous innovation in next-generation information technology, intelligent transportation and other fields.

We continue to deepen the industry-university-research collaborative innovation mechanism, and establish cooperative relationships with top research institutions such as Beijing Institute for General Artificial Intelligence and Changchun University of Science and Technology to jointly carry out cutting-edge technology research and development in the field of transportation. With a focus on key areas, we have achieved multiple ground-breaking research and development results through resource sharing and complementarity of each other's advantages. With our efforts, we have accelerated the transformation of innovative achievements and injected new momentum into the industry's technological upgrading and innovative development.

As of the end of December 2024

our R&D team had consisted of **2,583** members

accounting for **40.49%** of the total number of employees

Case

China TransInfo Works with BIGAI and Tongzhi Technology to Jointly Create a Universal Model in the Transportation Field and Build the AI + Traffic Intelligence System

In May 2024, China TransInfo signed a strategic cooperation agreement with Beijing Institute for General Artificial Intelligence (hereinafter referred to as "BIGAI") and its subsidiary Tongzhi Artificial Intelligence Technology (Beijing) Co., Ltd. (referred to as "Tongzhi Technology"). According to the agreement, the three parties will conduct in-depth cooperation on technology research and development, product innovation and scenario implementation, and jointly create a universal model in the transportation field. They will develop core products of AI + traffic intelligence system, explore innovative AI + transportation solutions, and push forward AI + transportation pilot projects, promoting the integration of artificial intelligence and transportation, and injecting new momentum into the development of intelligent transportation.

China TransInfo signs a cooperation agreement with BIGAI and Tongzhi Technology

The traffic intelligence system is an innovative form that integrates cutting-edge technologies such as artificial intelligence, IoT, big data and cloud computing. It has become a key vehicle for achieving such goals as intelligent transportation, smart mobility and efficient logistics. At the technical level, the three parties will integrate their respective advantages, jointly develop a universal model in the field of transportation, and build an AI + urban traffic intelligence system based on the "1+1+N" architecture. They are committed to utilizing abilities such as scenario understanding, cognitive reasoning and task planning to provide support for research and judgment analysis, illegal situations, congestion causes and safety warnings, etc., achieving the whole process analysis of transportation scenarios, and improving the safety, efficiency and intelligence of road services. At the business level, the three parties will jointly plan and implement traffic intelligence system projects with demonstration effects based on AI + transportation solutions, and enhance brand influence by creating industry benchmark cases.

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R&D Innovation Achievements

China TransInfo continues to promote the transformation and application of innovative achievements, injecting new momentum into industrial upgrading and economic development. In 2024, the Company made remarkable breakthroughs in multiple fields. In the field of aviation, we successfully assisted Air China in completing data decoding for the C919 aircraft model. In the field of intelligent transportation, the self-developed "Kunchao- Double Intelligent Intersection" new generation urban transportation infrastructure was selected as a typical case of "Artificial Intelligence+" application scenarios. Meanwhile, the "Chaoyang District CBD (Central Business District) Regional Traffic Comprehensive Management" project won the highest award in the municipal engineering industry nationwide. In terms of technological innovation, the project titled "Key Technologies and Applications of Vehicle-Road-Cloud Communication and Computing Collaboration" won the First Prize of Science and Technology Award from China Institute of Communications in 2024.

Thanks to its outstanding performance and continuous innovation capability in the field of information technology, China TransInfo has won multiple awards. In 2024, the Company was selected for both the Beijing General AI Industry Innovation Partnership Program and the "2024 Top 100 Competitive Software & IT Services Enterprises" list. It was also recognized as one of the "Top 100 Comprehensive Strength Enterprises in Beijing's Software and Information Services Industry."

Case

China TransInfo Assists Air China in Completing Data Decoding for the C919 Aircraft Model

Air China Limited (hereinafter referred to as "Air China") has received its first C919 aircraft, which marks that homemade large aircraft will enter a new stage of multi-user operation. China TransInfo has successfully completed data decoding of the Quick Access Recorder (QAR) for this aircraft model, providing key data support for the business application, analysis and decision-making of homemade large aircraft.

QAR, as a standard configuration component of aircraft, truly records a large number of operating parameters such as crew operation, aircraft condition, engine operation and fuel consumption. These parameters must be professionally decoded before they can be converted into usable information. As a mainline civil aircraft independently developed by China, the C919 aircraft has over 4,000 parameters compared with the Boeing 737 and Airbus A320. Parameters of the same type have multiple similar names, and many parameters occupy two bits for storage. So the QAR data parsing for this aircraft faces unique challenges. To address the long-standing problems of foreign technology blockade and low efficiency of domestic solutions in the QAR decoding field, Beijing Aero-com Information Technology Co., Ltd., a subsidiary of China TransInfo, has successfully overcome the decoding difficulties of the C919 aircraft model with its self-developed flight data decoding platform. Through key processes such as rigorous testing of parameter configuration and business data parsing, China TransInfo has built a complete flight information database for the C919 aircraft. This achievement will assist Air China in achieving refined operations such as flight plan optimization and aircraft health monitoring, marking an important breakthrough in China's independent processing capability of airline data and providing a solid data foundation for the safe operation and continuous improvement of homemade large aircraft.

Case

The New Generation Urban Transportation Infrastructure of China TransInfo Is Selected as A Typical Case of "Artificial Intelligence+" Application Scenarios

The 2024 Beijing Artificial Intelligence Ecosystem Conference, hosted by Beijing Municipal Commission of Development and Reform, Beijing Association for Science and Technology and Haidian District People's Government of Beijing Municipality, was grandly held in August 2024. The conference released the first batch of typical cases of "Artificial Intelligence+" application scenarios in Beijing. The "Kunchao- Double Intelligent Intersection" new generation urban transportation infrastructure developed by China TransInfo stood out from the application cases of more than 300 enterprises to be successfully selected into the first batch of typical cases of "Artificial Intelligence+" application scenarios in Beijing. It represents the latest achievements and application practices of the current artificial intelligence technology, and its successful experience will provide valuable inspiration and reference for more enterprises, and further stimulate the widespread application and in-depth exploration of artificial intelligence technology in various fields.

Case

Project of Traffic Management at CBD of Chaoyang District Participated by China TransInfo Wins the Highest Award in the Municipal Engineering Industry Nationwide

The Project of Traffic Management at CBD of Chaoyang District participated by China TransInfo successfully passed the acceptance in 2021. Based on core technologies such as big data and artificial intelligence, the Company has built a batch of high-tech application systems covering multiple aspects, including enhanced traffic perception, intelligent signal networking and control, humanized parking management and 5G technology application, further improving the regional intelligent transportation and traffic control efficiency in the CBD, and contributing to the formation of a new urban traffic pattern that "people enjoy their travel and vehicles move smoothly".

In July 2024, this project was included in the *List of Projects Passing the Highest Level of Quality Evaluation for Municipal Engineering in 2024* by the China Municipal Engineering Association. This award is the highest honor for engineering quality in China's municipal engineering industry, aiming to promote the comprehensive improvement of municipal engineering quality and technological innovation. The selected projects must reach the domestically advanced level in engineering quality, technological innovation, green and low-carbon development in the same period of the industry, while serving as exemplary models with significant industry-wide impact.

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Case

China TransInfo Is Successfully Included in the Beijing General Artificial Intelligence Industry Innovation Partner Program

In July 2024, China TransInfo, relying on its industry model development strength and innovative application achievements in key scenarios such as transportation, IoT and urban governance, was successfully included in the Beijing General Artificial Intelligence Industry Innovation Partner Program as a "Model Partner". This successful inclusion marks that the Company, as a representative of solution providers in the transportation industry, has developed industry models based on the general large model under typical industry scenarios, bridged the last mile of model-as-a-service, and contributed to the technical iteration of the general large model through back-feeding. The Partner Program is jointly initiated by the Beijing Municipal Bureau of Economy and Information Technology, Beijing Municipal Science & Technology Commission, Administrative Commission of Zhongguancun Science Park and Beijing Municipal Commission of Development and Reform, aiming to build an open cooperation platform for large AI models and establish a collaborative mechanism. So far, leading technology companies such as Huawei, Alibaba and Baidu have been included in the list of Model Partners.

Case

China TransInfo Wins the First Prize of Science and Technology Award from China Institute of Communications in 2024

In December 2024, the project titled "Key Technologies and Applications of Vehicle-Road-Cloud Communication and Computing Collaboration" led by Beijing University of Aeronautics and Astronautics and deeply participated by China TransInfo won the First Prize of Science and Technology Award from China Institute of Communications in 2024.

As a project under the national science and technology program in the field of transportation, "Key Technologies and Applications of Vehicle-Road-Cloud Communication and Computing Collaboration" has yielded significant achievements, including 63 granted invention patents, the establishment of 17 standards, and registration of 22 software copyrights. This project made major breakthroughs in three key technologies, namely lossless compression of high-dimensional data streams, on-demand networking and link adaptation, and collaborative scheduling of communication and computing resources. The research outcomes include a suite of proprietary supporting equipment and an intelligent connected cloud control platform, which have been successfully demonstrated and implemented in practical applications, generating substantial economic and social benefits.

Case

China TransInfo is Included in the List of the "2024 Top 100 Most Competitive Enterprises in Software and Information Technology Services"

China TransInfo, relying on its outstanding performance and innovative capabilities in the field of information technology, was included in the list of the *2024 Top 100 Most Competitive Enterprises in Software and Information Technology Services* (also known as "the Top 100 Enterprises in China's Software") released by China Federation of Electronics and Information Industry. This marks that the Company is at the leading level in the industry in terms of technical strength, innovation ability and market competitiveness, and is a backbone force in promoting the high-quality development of the software and information technology service industry.

Case

China TransInfo is Selected as One of the "Top 100 Enterprises in Comprehensive Strength in Beijing's Software and Information Service Industry"

The Beijing Software and Information Service Industry Association held the 2024 Enterprise Service Annual Conference and the Second Session of the 11th Member Representative Conference in Beijing, officially releasing the *2024 Report on Comprehensive Strength of Software and Information Technology Service Enterprises in Beijing*. China TransInfo has been selected as one of the "Top 100 Enterprises with Comprehensive Strength in Beijing's Software and Information Technology Service Industry" for nine consecutive years, along with outstanding companies such as Baidu, JD.com, and Xiaomi.

At the conference, the Beijing Software and Information Service Industry Association also released multiple single-index evaluation results. According to the *Evaluation Results of Corporate Social Responsibility Governance in Beijing's Software and Information Technology Service Industry in 2024*, China TransInfo was rated as the highest "AAA leading level". In the *2024 Report on Core Competitiveness Evaluation of Software Enterprises in Beijing*, China TransInfo ranked top among the "market application-focused" enterprises.

Intellectual Property Protection

At China TransInfo, we abide by laws and regulations such as the *Patent Law of the People's Republic of China*, the *Trademark Law of the People's Republic of China*, and the *Copyright Law of the People's Republic of China*. We have formulated internal management systems such as the *Intellectual Property Management Measures*, the *Service Invention Patent Management Measures*, the *Trademark Management Measures*, the *Copyright Registration Management Measures* and the *Service Invention Patent Incentive Measures* to standardize the application, approval and management processes of intellectual property rights and effectively control legal risks related to intellectual property rights.

We attach great importance to intellectual property protection of independent innovation achievements. With products as the core, we have coordinated industry know-how, software copyright registration, patent portfolio and trademark portfolio to build an interconnected and efficient intellectual property protection system, so as to protect its intellectual property rights from infringement. In terms of trademark management, we have implemented a tiered trademark management mechanism. Particularly for core trademarks, we have established a dynamic monitoring system. Through continuous registration and the identification of risky trademarks, we ensure the stability of the rights and interests of core trademarks related to the master brand, thereby safeguarding the Company's trademark rights and interests.

Meanwhile, we respect and protect the intellectual property rights of third parties, and provide training on intellectual property to communicate the policies and importance of intellectual property protection to our employees for the purpose of improving their awareness and ability to protect intellectual property rights. In addition, we strengthen intellectual property information retrieval in key links such as product development and market expansion to prevent infringement of others' intellectual property rights.

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In 2024

We had
573 new patent applications

including
451 invention patents

We had
395 new authorized patents

including
289 invention patents

As of the end of December 2024

We had owned
5,583 intellectual property rights

We had filed
5,452 patent applications

We had filed
4,192 invention patent applications

We had obtained
3,208 authorized patents

We had acquired
2,157 authorized invention patents

We had held
1,822 software copyrights

Governance over Ethics in Science and Technology

China TransInfo attaches great importance to the governance over ethics in science and technology. In accordance with its internal system documents such as the *Measures for Ethical Review of Science and Technology (Trial)* and the *Algorithm Security Management System*, the Company has established the Science and Technology Ethics Committee, which is fully responsible for the ethical approval, risk assessment and control of the Company's technology activities. The establishment of the Science and Technology Ethics Committee marks an important step taken by the Company in the governance over ethics in science and technology, ensuring that technology activities comply with ethical norms and social responsibility requirements.

The Algorithm Compliance Team is provided under the Company's Technology for Social Good Committee to organize and coordinate algorithm security. The team evaluates and controls the safety, reliability and compliance of algorithm activities to ensure that the algorithm design, development and application follow ethical principles and laws and regulations. The team is also responsible for relevant filing work, ensuring the transparency and traceability of algorithm activities, and providing a solid guarantee for the Company's concept of Technology for Social Good.

In order to continuously implement the concept of Technology for Social Good, the Company collects, compiles and releases compliance documents on a regular basis such as *Biweekly Report on ESG Compliance* and *Biweekly Report on Data Compliance*, and timely delivers them to relevant department heads. These documents not only cover the latest compliance requirements and industry trends, but also provide specific operational guidance and case analysis to help relevant departments implement ethical requirements of science and technology in their daily business activities. Through this mechanism, the Company ensures that the ethical principles of science and technology can be timely and effectively implemented in all business activities.

Promoting the Development of the Industry

China TransInfo develops strategic partnerships with industry associations and leading enterprises and extensively participates in the formulation of industry standards to jointly promote the sustainable development of the industry.

Strategic Cooperation

Upholding the principle of mutual benefit and win-win result, we constantly expand areas of cooperation in an effort to create more value and make more achievements together with our partners. In 2024, we established strategic partnerships with multiple enterprises, including Beijing Vehicle Network Technology Development Co., Ltd., China Xiong'an Group Digital City Technology Co., Ltd., Xiong'an Transinfo Digital City Intelligent Connection Technology Co., Ltd., SEPCO Electric Power Construction Corporation, SF Technology Co., Ltd., and Hangzhou HopeChart IoT Technology Co., Ltd., to jointly promote collaborative development. We and China Xiong'an Group Digital City Technology Co., Ltd. co-founded Xiong'an Transinfo Digital City Intelligent Connection Technology Co., Ltd., aiming to help Xiongan New Area create a new benchmark of digital roads, intelligent connectivity and intelligent transportation that takes a leading position in the country.

Case

Xiong'an Group and China TransInfo Set Up a Joint Venture "XTDCICT"

In August 2024, China Xiong'an Group Digital City Technology Co., Ltd. and China TransInfo co-founded Xiong'an Transinfo Digital City Intelligent Connection Technology Co., Ltd. (hereinafter referred to as "XTDCICT"), planning to help Xiongan New Area create a new benchmark of digital roads, intelligent connection and intelligent transportation in the country through the planning, construction and operation of the intelligent connected city with integrated vehicle-road-cloud system.

XTDCICT is the first joint venture between state-owned and private enterprises under Xiong'an Group, and also the first company in Xiongan New Area that focuses on the development of vehicle-road collaboration and intelligent transportation economy. It will fully introduce China TransInfo's intelligent transportation planning and design capabilities, cloud control center construction experience, roadside perception and edge AI product system and operation service capabilities, and focus on solving traffic problems. Meanwhile, it will take the Xiongan New Area as a starting point to create model scenarios for digital roads, intelligent connection and intelligent transportation in the country, and establish a national intelligent connected business system.

Xiong'an Group and China TransInfo set up a joint venture "XTDCICT"

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Case

BVNTD, CXGDCT and XTDCICT Signed a Business Cooperation Agreement on Integrated Vehicle-road-cloud System

Beijing Vehicle Network Technology Development Co., Ltd. (BVNTD), China Xiong'an Group Digital City Technology Co., Ltd. (CXGDCT) and Xiong'an Transinfo Digital City Intelligent Connection Technology Co., Ltd. (XTDCICT) signed a Business Cooperation Agreement on Integrated Vehicle-road-cloud System in Beijing. The three parties will work together for the integrated vehicle-road-cloud system, promote the implementation of pilot projects in key fields and regions and enrich application scenarios. They will also explore innovative business models, build a rich industrial ecosystem and create a development and application base for intelligent connected vehicles, thus to promote the implementation of Chinese approach for integrated vehicle-road-cloud system.

Signing ceremony of Business Cooperation Agreement on Integrated Vehicle-road-cloud System among BVNTD, CXGDCT and XTDCICT

Case

China TransInfo Works with HopeChart IoT to Accelerate the Implementation of the Integrated Vehicle-road-cloud System

In June 2024, China TransInfo signed a strategic cooperation agreement with Hangzhou HopeChart IoT Technology Co., Ltd. (HopeChart). Both parties will deepen cooperation on technology and products, complement each other's advantages and share resources. Besides, they will jointly expand the domestic market of the integrated vehicle-road-cloud system to accelerate the implementation of the integrated vehicle-road-cloud system.

China TransInfo will introduce full stack technologies such as C-V2X protocol stack, vehicle-road collaboration technology, edge perception algorithm and cloud edge management technology, and focus on the development of roadside cloud-edge-device equipment and cloud control platforms. HopeChart IoT will introduce key technologies such as V2X communication, single Beidou positioning, Beidou short message and ADAS algorithm, and focus on the development and installation of on-board devices for commercial vehicles, passenger cars and other vehicle models. Both parties will further improve the full range of intelligent hardware products and industry solutions on the roadside and at the vehicle end for integrated vehicle-road-cloud system, and actively participate in the integrated vehicle-road-cloud system projects across the country.

Industry Communication and Exchanges

We actively participate in industry communication and exchanges by attending the 15th China International Aviation and Aerospace Exhibition, 2024 ITS China Congress (ITSAC 2024), the 14th China International Road Traffic Security Products Expo and 2024 World Intelligent Connected Vehicles Conference to exchange industry experience with all parties.

Case

China TransInfo Attends the ITSAC 2024

On November 8, 2024, the ITSAC 2024 was held in Hangzhou. Themed with "New Quality Productive Forces, Increased Efficiency, People First and Innovation", the conference focused on the research of forward-looking and key new technologies in the field of intelligent transportation. The Chief Expert on Urban Transportation from China TransInfo delivered a keynote speech on "Key Technologies and Practices for Spatiotemporal Optimization of Urban Road Traffic" at the "Smart City and Digital Governance of Transportation" academic forum, focusing on alleviating urban traffic congestion and sharing with the attending guests China TransInfo's exploration and practice in spatiotemporal optimization of urban road traffic based on big data empowerment. Based on years of practical experience in alleviating traffic congestion, China TransInfo proposed a spatiotemporal optimization method for traffic congestion control, emphasizing the need to fill in the gaps in traffic perception on the basis of fully utilizing old resources to achieve the dual effective utilization of road space resources and management time resources to the maximum extent.

China TransInfo shares "Key Technologies and Practices for Spatiotemporal Optimization of Urban Road Traffic" at the ITSAC 2024

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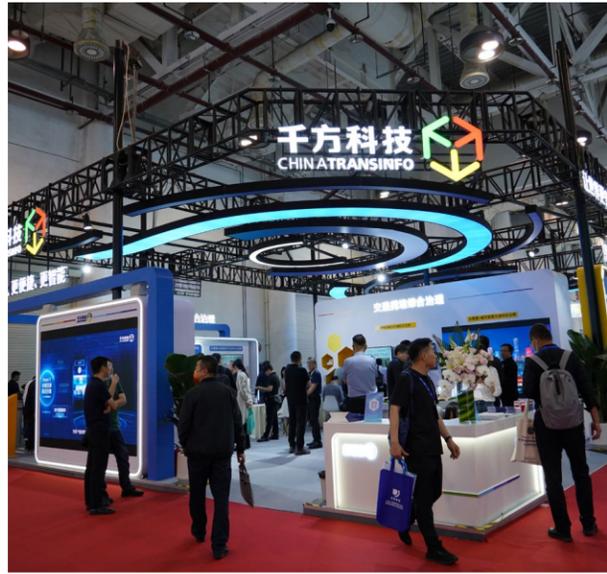
China TransInfo attends the 14th China International Road Traffic Security Products Expo, and launches new products such as the Cloud Platform for Safety Supervision of Heavy Cargo Vehicles focusing on the two themes of "comprehensive management of traffic congestion" and "comprehensive management of traffic safety". It also displays multiple industry solutions and a variety of hardware products in a scenario-based manner, attracting numerous government and enterprise clients as well as industry experts to inquire and exchange ideas.

Xiong'an Transinfo Digital City Intelligent Connection Technology Co., Ltd., a subsidiary of China TransInfo, is invited to attend the 2024 World Intelligent Connected Vehicles Conference. As a representative enterprise in the field of intelligent transportation, it joins the Advanced Manufacturing Industry Cluster for Intelligent Connected Vehicles in Beijing-Tianjin-Hebei Region, promoting the coordinated development of the Beijing-Tianjin-Hebei Region and helping to develop supporting industries for intelligent transformation of future cities.

Promoting the Formulation of Industry Standards

China TransInfo actively participates in the formulation of national, local, regional and industry standards, giving full play to its leading role in the transportation industry, and contributing its own experience to the industry development. In 2024, we released the *Report on the Development of Big Data Applications in the Transportation Industry* in conjunction with the China Academy of Information and Communications Technology. Based on our profound industry understanding and experience, we have driven the multiplier effect of data elements in the transportation industry through digital technology, providing a reference for all parties to advance big data application practices in the transportation industry. As of the end of December 2024, we had participated in the formulation of 1 international standard, 20 national standards, 66 industry standards, 20 local standards and 45 group standards.

Case

China Academy of Information and Communications Technology and China TransInfo Jointly Release the *Report on the Development of Big Data Applications in the Transportation Industry*

In March 2024, the Big Data Technology and Standard Committee of the China Communications Standards Association and China TransInfo jointly released the first research report on big data applications in China's transportation industry, namely, *Report on the Development of Big Data Applications in the Transportation Industry* (hereinafter referred to as the "report"). The report is divided into six chapters, which describes three development stages of data applications in the transportation industry for the first time and systematically lists relevant national policies on big data and transportation industry. The report focuses on the three core aspects, i.e. data resources, data application technology and data empowerment scenarios in China's transportation industry, and predicts the future trends of data application development in the transportation industry from both industrial and technological perspectives. As a leading digital products and industry solutions provider in China, China TransInfo has driven the multiplier effect of data elements in the transportation industry through digital technology based on its profound industry understanding and experience, providing a reference for all parties to advance big data application practices in the transportation industry.

Case

Three Ministries and One Commission Visit China TransInfo to Conduct a Survey on Its Work in Promoting Collaborative Innovation and Industrial Cooperation in the Beijing-Tianjin-Hebei Region

In September 2024, relevant leaders from the Ministry of Science and Technology, the Ministry of Industry and Information Technology, the National Development and Reform Commission and the Ministry of Finance, visited China TransInfo to conduct a survey on its work in promoting collaborative innovation and industrial cooperation in the Beijing-Tianjin-Hebei Region. They conducted in-depth discussions on China TransInfo's efforts made in the fields of integrated vehicle-road-cloud system, comprehensive traffic management and integrated development of transportation and energy for the coordinated development in Beijing-Tianjin-Hebei Region. The visiting leaders fully recognized the China TransInfo's commitment to technological innovation over the years, continuous provision of products and services that meet market demand, and contributions to the coordinated development in Beijing-Tianjin-Hebei region based on the characteristics and advantages of the enterprise.

Three ministries and one commission visit China TransInfo to conduct a survey on its work in promoting collaborative innovation and industrial cooperation in the Beijing-Tianjin-Hebei Region

03

Enabling Employees to Grow and Achieve Their Potential

China Transinfo always regards employees as the most core asset, adheres to the "people-oriented" management philosophy, and builds a diverse, equal, and inclusive workplace ecosystem on all fronts. We establish a comprehensive career development system to provide employees with a multi-level and multi-dimensional platform for enhancing their abilities. At the same time, we focus on the physical & mental health and occupational well-being of employees and devote ourselves to creating a sustainable development platform that allows every employee to fully unleash their potential and realize their professional value.

Our Actions

- ⊘ Protecting employees' rights and interests
- ⊘ Empowering employee development
- ⊘ Safeguarding the health of employees
- ⊘ Boosting employee care initiatives

| 3 GOOD HEALTH AND WELL-BEING | 4 QUALITY EDUCATION | 5 GENDER EQUALITY | 8 DECENT WORK AND ECONOMIC GROWTH | 10 REDUCED INEQUALITIES |

Our Achievements

We had a total of 6,380 employees

We recruited 825 new employees

We spent RMB 1,777.0 thousand in annual training expenditure

Our total training time for employees was 302,466 hours

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Protecting Employees' Rights and Interests

We continue to improve our employment system and protect the legitimate rights and interests of our employees with concrete actions. We uphold an open and inclusive talent concept, and establish a science-based and comprehensive salary incentive mechanism and career development channel. Besides, we adopt more measures to promote the value co-creation between the employer and employees through diversified employee communication platforms and democratic participation mechanisms.

Equal Recruitment

We have adhered to the principle of fair and unbiased employment and established a comprehensive system for equal employment management. We have strictly abided by the *Labor Contract Law of the People's Republic of China*, the *Labor Law of the People's Republic of China*, the *Regulations on Work-Related Injury Insurance*, the *Provisions on the Prohibition of Using Child Labor*, and the *Law of the People's Republic of China on Protection of Minors*, and other relevant national laws and regulations, as well as core conventions of the International Labour Organization. Besides, we have developed internal management systems such as the *Employee Handbook* and the *External Recruitment Management Measures*, and built a management system covering the whole process from recruitment, employee onboarding and active service. By implementing mechanisms such as pre-employment identity verification and background checks, we firmly eliminate illegal practices such as child labor and forced labor, and ensure legal and compliant employment practices. We provide equal employment opportunities for all individuals by embedding AI language monitoring systems in recruitment announcements, interview evaluations, and onboarding registration to eliminate discriminatory expressions and ensure the protection of the legitimate rights and interests of applicants during the registration and onboarding data collection. We have explicitly included the principle of "zero discrimination" into our policy, and prohibited discrimination against employees based on gender, age, race, religious beliefs, disability, and any other factors. In addition, we have included relevant requirements in the *Employee Handbook* and ensured their effective implementation through regular training.

We have established a comprehensive talent introduction system, implemented differentiated talent strategies, and focused on the introduction and cultivation of technological innovation talents, versatile management talents, business management talents, and key experts. Besides, we have introduced middle-level managers and core technicians through diversified recruitment channels, creating a high-quality talent pool.

In terms of cultivation of new generation talents, we have actively carried out campus recruitment for fresh graduates and focused on talent reserves for strategic positions such as posts of research and development innovation and technical support. With customized training projects, internship practice bases and other methods, we have achieved effective linkage between talent introduction and training. In addition, we have long-term cooperation with multiple universities such as Beijing Jiaotong University, Beijing University of Technology, Beihang University, and Beijing Foreign Studies University, providing a continuous supply of talent support for our sustainable development.

Diversification and Inclusiveness

We consider diversity and inclusivity as important elements of sustainable development, and devote ourselves to building an equal, open, and inclusive organizational culture. Besides, we adopt a diversified talent introduction plan, put great efforts to attract outstanding talents with different backgrounds, experiences, and abilities, and work to build a diverse team with innovative vitality.

We provide employment opportunities for special groups such as people with disabilities and veterans. We also establish a comprehensive employee support system, and provide necessary support and assistance for employees with special needs by ways of customized work arrangements, construction of a barrier-free environment, psychological counseling, and other diversified support measures, helping them quickly integrate into the workplace.

Salary and Welfare

At China Transinfo, we continue to improve our salary management system and provide employees with competitive salary and welfare plans in the industry. We have established a comprehensive welfare plan. We have also built a multi-level security system based on the full payment of the "five social insurances and one housing fund" in accordance with the law, including supplementary commercial medical insurance, accidental injury insurance, to provide employees with holistic protection. In terms of employee care, we have established a comprehensive care system that includes holiday greetings, birthday wishes, catering subsidies, health management, and more. By continuously optimizing the employee experience, we are committed to creating a warm and caring working environment, continuously enhancing employees' sense of belonging and happiness, and achieving mutual growth between employees and the employer.

Employee Communication and Democratic Management

At China Transinfo, we attach great importance to the opinions and needs of employees. We have established a comprehensive and multi-level employee communication and engagement system based on the philosophy that employee voices are an important driving force for organizational development. Besides, we have taken advantage of the "Cloud Home" online comprehensive office management platform to promote employee information sharing and team collaboration, while providing a space for employees to showcase themselves. We attach great importance to the communication experience in the early stage of talent development and give communication and development planning guidance for probationary and intern employees on a regular basis. These measures have not only enhanced organizational cohesion, but also built a sound ecosystem for employees and enterprises to grow together, laying a solid foundation for sustainable development.

Comprehensive mechanism for safeguarding employees' rights and interests

Multi-channel Feedback System

Employees can communicate with their immediate superiors, HRBP, Employee Relations Committee and use other communication channels to express demands.

Performance Appeal Mechanism

A performance feedback and appeal mechanism is established to ensure fairness and impartiality in the assessment process.

Dedicated Communication Channel

A dedicated email address is created to ensure effective response to employees' demands and safeguard their freedom of speech.

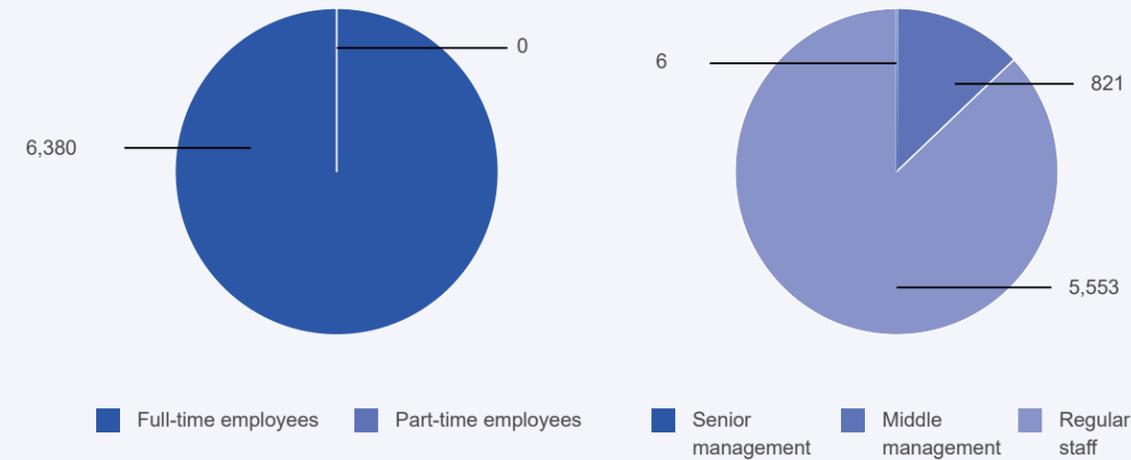**Regular Dialogue Mechanism**

Regular department meetings and employee seminars are held on a regular basis to enhance communication and dialogue between the Management and employees.
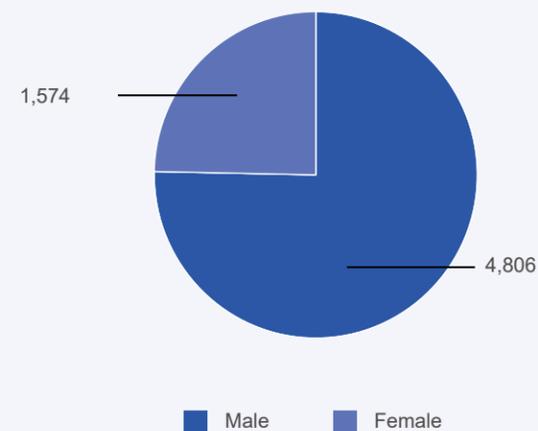
Satisfaction Survey

Questionnaire surveys and other methods are used on a regular basis to understand employees' satisfaction with us, and stimulate their enthusiasm for collaborative creation and development with us.

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Total number of employees: 6,380 persons   **Total number of new employees: 825 persons**

Number of employees by employment type (person)

- 0
- 6,380

Legend:
- Full-time employees
- Part-time employees

Number of employees by rank (person)

- 6
- 821
- 5,553

Legend:
- Senior management
- Middle management
- Regular staff

Number of employees by gender (person)

- 1,574
- 4,806

Legend:
- Male
- Female

Number of employees by age (person)

- 127
- 773
- 2,774
- 2,706

Legend:
- 30 years old and below
- 31-40 years old
- 41-50 years old
- Above 50 years old
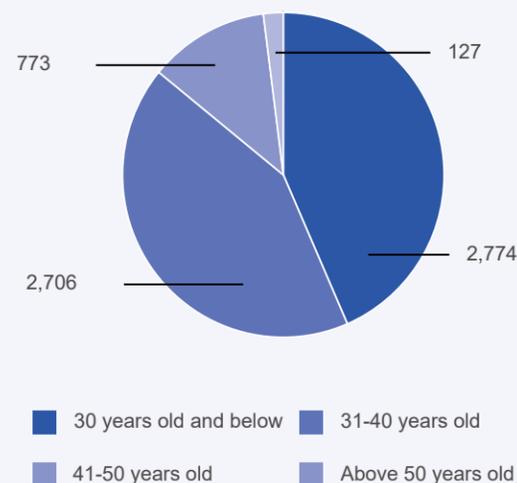
Employee turnover: 1,084 persons   **Employee turnover rate:** 14.53%

Empowering Employee Development

At China Transinfo, we have built a comprehensive talent development ecosystem and devoted ourselves to building an empowering organization, providing employees with a broad platform to realize their professional value. We have offered a range of high-quality learning and development opportunities aimed at helping employees tap into their potential and supporting their continuous personal and professional growth.

We have continuously optimized the position and rank management system and standardized the process of position creation, analysis, evaluation, and change. We have also established a "dual-track" career development system comprising the "professional/ technical track" and the "management track", providing employees with diversified career development paths. This system includes a science-based position evaluation mechanism, a transparent promotion process, and a fair competitive environment, ensuring that every employee can find their growth direction on a clear career development map.

We attach great importance to employee training and motivation. We have established a hierarchical and classified training system to ensure the continuity, efficiency, and systematicity of employee training. Besides, we have continuously improved employees' vocational skills and comprehensive qualities, for the purpose of "training by the best achievers for better achievers":

Leadership Development Program

Targeting mid-to-senior managers, this program enhances change management capabilities and drives organizational transformation through online learning, case studies, business simulations, and industry trend seminars. It strengthens industry insights and maintains decision-making foresight while fostering cultural renewal.

Professional Capability Enhancement Plan

Designed for technical experts, this initiative updates core technical knowledge through cutting-edge courses (AI, computing infrastructure) and expert workshops. It links learning outcomes with performance evaluation and promotion opportunities to boost engagement, while supporting enterprise innovation.

New Generation Training Program

Focused on new graduates and new hires, this program accelerates comprehensive skills development through competency training and job rotations. It facilitates faster transition into management or cross-functional roles, stimulates innovative thinking through practical experience, and promotes organizational integration.

We emphasize the combination of training and practice. Our managers and technical experts at all levels actively participate in the development and teaching of training courses. In order to meet the diverse learning needs of employees, we adopt a combination of online live streaming and offline training and take the initiative to hold various training activities.

We have established a comprehensive talent introduction policy and process, with a focus on introducing technical, versatile, and business-oriented middle & senior managers and outstanding talent teams. We have formed strategic partnerships with multiple key universities to create an integrated talent cultivation ecosystem featuring industry-university-research-application through collaborative laboratories, joint research projects, and internship bases. At the same time, we hold brand events such as innovation competitions and technology forums on a regular basis to continuously attract and cultivate new generation talents, providing intellectual support for its sustainable development.

Development and Training

Expenditure on annual training
RMB **1,777.0** thousand

Total hours of employee training
302,466 hours

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Safeguarding the Health of Employees

At China Transinfo, we strictly abide by national laws and regulations and have improved our systems and documents such as the *Environment, Occupational Health and Safety Management Manual*, the *Management Process for EHS Laws and Regulations*, and the *Occupational Health Management*. Additionally, we have established a Workplace Safety Office and implemented an internal mechanism for enforcement. These initiatives have ensured the effective operation of the occupational health and safety management system and provided guarantees for its emergency response. The company has obtained ISO 45001 Occupational Health and Safety Management System certification.

We pay attention to the development of safety culture and work to create a safe and comfortable work environment for employees. This commitment includes initiatives such as having AEDs available in our offices. Furthermore, we enhance employee health and safety awareness through safety knowledge promotion and training sessions. Additionally, we conduct annual programs such as fire drills and first aid training to eliminate safety hazards in advance. We also develop comprehensive emergency plans and ensure timely handling of emergencies.

Comprehensive health protection for employees

Medical Insurance ····• We implement a supplementary medical insurance plan to cover employees and their children, providing comprehensive protection such as outpatient service, inpatient service, and accidents.

Health Management ····• We organize employees to participate in employee physical examinations on a regular basis, customize personalized physical examination plans, and provide professional health consultation and sub-health intervention services.

Special Protection ····• We purchase special high-coverage accident insurance for employees at high-risk positions.

Psychological Care ····• We establish an employee counseling room to provide professional psychological counseling services.

By building a three-in-one health management system integrating prevention, protection, and intervention, we are committed to creating a safe, healthy, and sustainable working environment to safeguard the physical and mental health of employees.

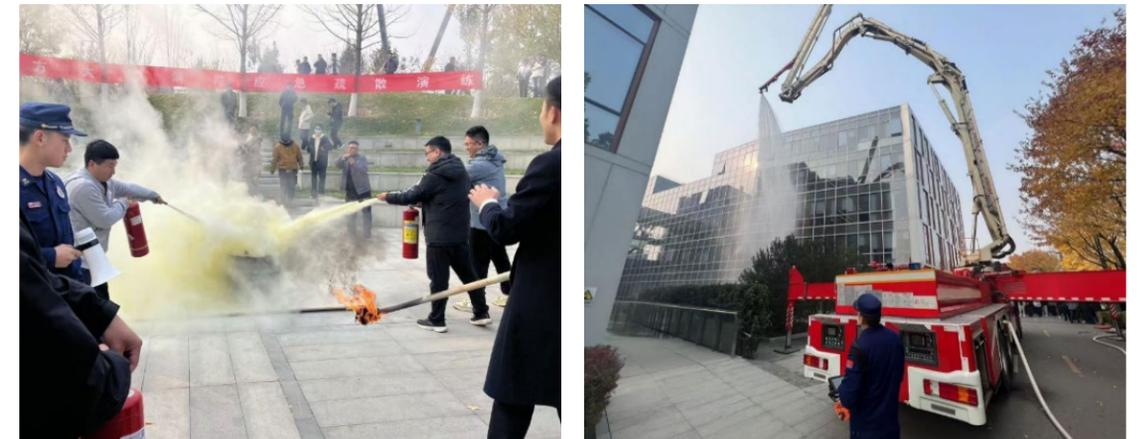China Transinfo holds emergency first aid training

Case

Uniview Carries out Activities Related to the Physical and Mental Health of Employees on a Regular Basis

Uniview, a subsidiary of China Transinfo, pays great attention to the physical and mental health of its employees. In addition to providing annual physical examinations, it also regularly organizes activities that help maintain the physical and mental health of its employees. It has held events for its employees such as door-to-door service from TCM practitioners, emergency rescue training, traditional Chinese medicine markets, health lectures, seasonal health salons, mental health salons, greatly improving their health literacy and awareness. Various health activities held have helped employees relieve stress and bad emotions, and enhance organizational cohesion and combat effectiveness.

Case

China Transinfo Holds a Fire Emergency Drill

In 2024, China Transinfo conducts a fire emergency drill during Work Safety Month to enhance the safety awareness of all staff. This drill helped them understand and familiarize themselves with evacuation procedures, improve self-rescue and escape capabilities, and minimize losses caused by various unexpected accidents.

China Transinfo conducts a fire emergency drill

Occupational Health and Safety

New cases of occupational diseases in employees
0 person

Employee health examination rate
94.38%

Number of deaths due to work-related injuries
0 person

Number of hours lost due to work-related injuries
4,780 hours

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Boosting Employee Care Initiatives

China Transinfo is committed to creating a caring working environment and enhancing employees' sense of happiness and belonging.

Building of a Comfortable Office Environment

- We create green ecological office spaces, improve air quality with indoor greening projects, and build a sound and comfortable working environment. At the same time, we are equipped with a comprehensive amenities complex, including therapy rooms, hair salons, laundry shops, restaurants, cafes, gyms, book corners, and basketball courts, to meet the daily needs and recreation and entertainment needs of employees.

Improvement of Employees' Living Conditions

- We provide rental discounts for young employees and solve their housing problems through cooperation with large real estate agencies and developers.

Female Employee Care Program

- We attach great importance to the well-being of female employees and provide them with exclusive benefits such as workplace training and professional image photos. We set March as Women's Care Month every year to express respect and care for female employees and ensure full support and recognition received by them at the workplace. In addition to providing family planning holidays such as pregnancy, perinatal period, and postpartum leave for female employees, Uniview has set up a separate mommy cabin, equipped with facilities such as refrigerators, fabric sofas, tea tables, and cabinets.

Heartwarming Care Action

- At the end of each year, we carry out a hardship comfort program, where we send comfort funds for employees in need. We also offer our care and coolness gifts to employees who participate in outdoor high-temperature work during the hot summer.

Vitality Culture Development

- We have offered activity funds to provide diversified choices for employees' leisure life and established 12 clubs, i.e., clubs of badminton, football, basketball, running, cycling, outdoor activities, reading, music, photography, volunteer service, dance, e-sports. Uniview holds a Corporate Culture Festival where it organizes annual activities related to corporate culture. In 2024, Uniview organized a combination of online and offline activities such as Mid-Autumn Festival Garden Party, Rainbow Walk, "Uniview Cup" Photography Competition, Creative Team Challenge Competition, and Positive Energy Millionaire, winning great love from employees.

Case

Uniview Launches A Summer After-school Care Program

In 2024, at the headquarters of Uniview, we set up a summer after-school care program, providing free "love care" services for employees' children. The child care time was synchronized with the parents' working time, achieving the goal of "managing work and parenting without compromising either". In addition to appointing 2 homeroom teachers, we also hired professional teachers from the Youth Palace to join us. The courses were customized according to age, rich and interesting, covering multiple dimensions such as reading for inspiration, cultural and sports entertainment, comprehensive practical exploration, and interest & potential expansion. More than 50 children benefited from this program, receiving widespread praise from employees. In the future, we will also focus on meeting the needs of employees and further address their practical difficulties in taking care of their children during the summer vacation.

Summer after-school care program launched by Uniview

Case

China Transinfo Holds Dragon Boat Festival activities

During the Dragon Boat Festival, China Transinfo joined hands with Shangdi Science Park Community where it operates business to hold Dragon Boat Festival themed activities. In addition to the traditional activities of wrapping Zongzi (also known as sticky rice dumplings), folk games such as Pitch Pot were also arranged for the event, and interactive workshops were also set up, such as Dragon Boat decoration DIY and lacquer fan painting. The event, attracting people from Shangdi Science Park Community, not only enhanced the interaction between the enterprise and the community but also further promoted the inheritance and development of traditional culture.

Dragon Boat Festival activities by China Transinfo

04

Joining Hands to Build a Harmonious Ecosystem

At China TransInfo, we actively participate in community co-development. We engage with and contribute to the communities where we operate, fully leveraging our technological innovation advantages to contribute to the society. We firmly believe that both industry prosperity and community well-being are essential for sustainable development. We promote environmentally friendly production methods to drive the sustainable development of the industrial chain. While realizing commercial value, we continue to create shared values for society and promote the coordinated development of the economy, environment, and society.

Our Actions

- ⊘ Conducting public charity activities
- ⊘ Pushing for green operation
- ⊘ Building a responsible supply chain

Our Achievements

Our public welfare investment amounted to RMB 802,000

Our total energy consumption was 7,393.87 tons of standard coal

We had 13,734 suppliers

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Conducting Public Charity Activities

At China Transinfo, we adhere to the concept of "technology for social good" and integrate social responsibility into our corporate development strategy. Besides, we actively engage in fields such as growth education, nature education, life education, and emergency relief & rescue. In 2024, we invested RMB 802,000 in public charity investment. In the future, we will continue to improve the "technology + public welfare" model and contribute more to building a harmonious society.

Case

Uniview Donates AI Fitness Display Screens to Haiga Elementary School

Uniview donated AI fitness display screens to Haiga Elementary School in Dawan Town, Zhongshan District, Liupanshui City, Guizhou Province, empowering rural education with technology. Uniview's AI culture, education, and sports program supports intelligent assessments of multiple sports choices such as running, rope skipping, sit ups, long jump, and pull-up, making AI a professional sports companion for children. Through gamified interaction and data analysis, it stimulates students' interest in sports and improves the quality of physical education teaching. As an advanced collective in poverty alleviation in Guizhou Province, Haiga Elementary School is able to solve the problem of insufficient professional sports teachers with these intelligent sports equipment. The screens also open a new window for digital sports education for rural children, demonstrating the social value of technology in promoting educational equity.

Case

Uniview Donates Equipment to A Disability Rehabilitation Institution in Seoul, South Korea

On the occasion of the 44th Korean Day of Persons with Disabilities, Uniview donated intelligent video IoT devices to a vocational rehabilitation institution for persons with disabilities in Seoul. This plan covers a rehabilitation workshop of 460 m² where Uniview builds a safety protection net for disabled workers through AI visual analysis, intelligent warning and other functions. With the net, the institution can monitor the working environment in real time, warn potential risks in a timely manner, and provide all-round security measures for people with limited mobility. This donation not only reflects Uniview's care for special groups, but also demonstrates the social value of technology in helping people with disabilities find jobs, and showcases its international humanistic care.

Case

Raptor Science Popularization Enters School to Promote Nature Education

Uniview launched "Fly! Free Raptors" themed science popularization activity in an elementary school in Hangzhou. Engineers explained raptor protection knowledge to 400 students and showcased the AI observation system developed for the IFAW's Beijing Raptor Rescue Center. This system can clearly observe raptors in recovery without disturbance and zero fill light. At the event, students gained a deeper understanding of raptor species such as peregrine falcons and eagle owls through interactive segments such as "composing poems from pictures". Uniview applies AI technology to wildlife conservation, which not only improves rescue efficiency, but also cultivates the ecological awareness of young people, demonstrating the responsibility of technology enterprises to promote harmonious coexistence between humans and nature.

Case

Swift Science Popularization at Taishe Bookstore to Boost Nature Education

Uniview, together with Taishe Bookstore in Fengtai District, Beijing, held a science popularization lecture on "Observing Swift in Beijing". As an important participant in the protection of endemic species in Beijing, Uniview has been providing intelligent observation solutions for swift research since 2021, accumulating a large amount of scientific research data through video IoT technology. The event was held at the iconic building of Taishe Bookstore, Heaven-Piercing Tower. Experts vividly explained the ecological habits of swifts such as "lifelong monogamy", while students actively participated in interactive Q&As. Finally, the children drew a migration route map for swifts of 60,000 li (i.e., 30,000 km) long to have a deep understanding of the importance of biodiversity conservation. Uniview supports ecological research with technological innovation, demonstrating the responsibility of technology enterprises to safeguard the city's ecological business card.

Case

Talks on Life Change by Artificial Intelligence at Wulin Street to Achieve Life Education

Uniview held a science popularization lecture on "The Wandering Earth and Life Change by Artificial Intelligence" in Zhuganxiang Community, Hangzhou. In the film "The Wandering Earth 2", products of Uniview (as a representative of Zhejiang manufacturing) have been featured for over 20 times. Uniview combines film technology with real-life innovation, telling the wisdom of coexistence between humans and nature. The lecture starts with the history of the Liangzhu civilization's response to transgression of sea, showcasing the process of disaster resistance with united efforts of humans. Combined with the technological applications of Uniview in environmental monitoring, animal protection, and other fields, it explains the mission of technology to protect the earth. This lecture has been selected as a high-quality science popularization project by the Hangzhou Association for Science and Technology. From the grand perspective of "undertaking the right cause, and understanding the power of working together for 2500 years", it inspires the public to think about sustainable development and demonstrates the responsibility of technology enterprises to promote ecological progress.

In 2024

Total investment in public welfare

RMB **802** thousand

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Pushing for Green Operation

At China Transinfo, we actively respond to the national "dual carbon" strategy and deeply integrate the concept of green development into enterprise operations. We have established a comprehensive environmental management system and obtained ISO 50001 energy management certification and ISO 14001 environmental management system certification. We have continued to carry out energy-saving monitoring, energy auditing, and other related work. In 2024, we had no environmental accidents, nor were we imposed with major administrative penalties or pursued for criminal responsibility due to emissions of pollutants.

Response to Climate Change

As a responsible technological innovation enterprise, we have a deep understanding of the systemic challenges and transformation opportunities brought by climate change, and embed the low-carbon development concept into the entire process of strategic decision-making and business operations.
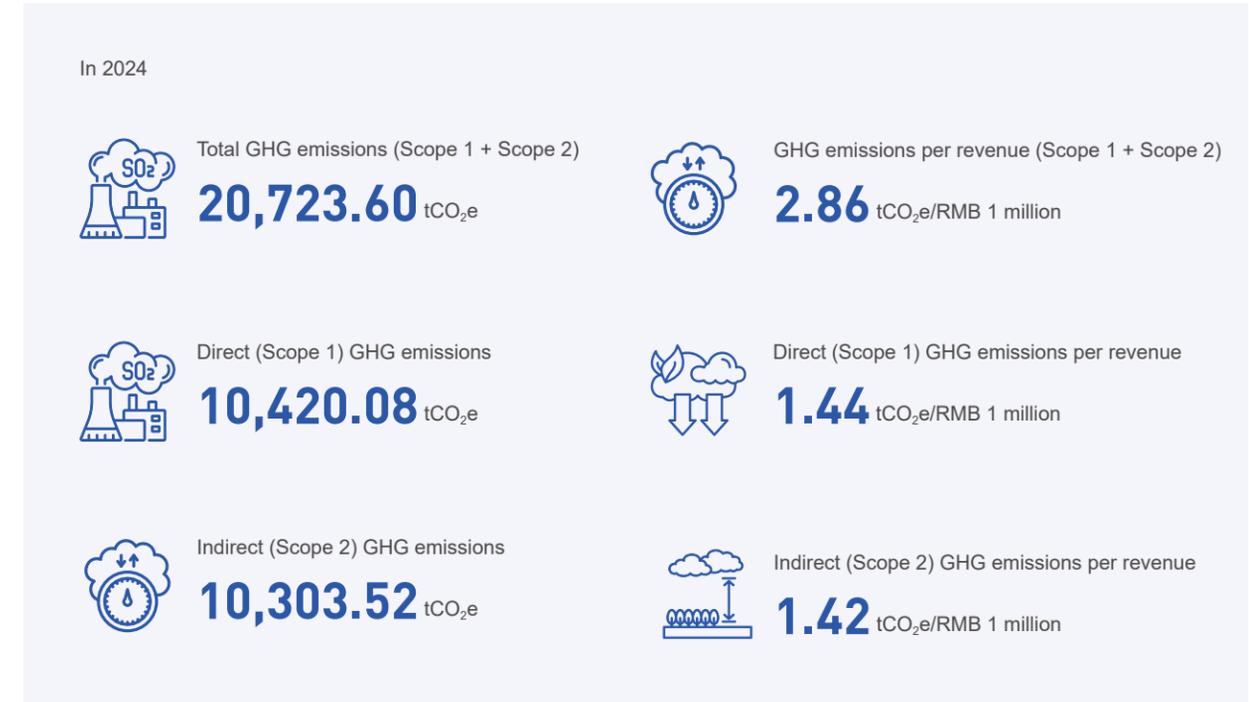
We analyze climate scenarios and identify the climate change related risks and opportunities faced by us by referring to TCFD (Task Force on Climate-Related Financial Disclosures) framework.

Climate Change Risks	**Development Opportunities**
The operational impact of extreme weather is caused on critical facilities such as data centers	Market demand for green product innovation and energy efficiency solutions is growing

To this end, we continue to improve energy efficiency during operation and promote the concept of green and low-carbon culture. We hold environmental protection related training on a regular basis, encourage employees to achieve green travel and office, and advocate for resource conservation and environmental protection. We have formulated the *Vehicle Management Measures* to standardize our vehicle management process. With these measures, we encourage employees to adopt low-carbon and environmentally friendly travel methods, reduce greenhouse gas emissions during commuting, and equip charging stations around the workplace to provide convenient charging services for employees. We have formulated emergency plans for environmental risks such as high temperature and rainstorm, carried out emergency drills regularly, and notified employees of relevant response in advance before rainstorm warning.

New energy charging area of China Transinfo

In 2024

Total GHG emissions (Scope 1 + Scope 2)
20,723.60 tCO_2e

GHG emissions per revenue (Scope 1 + Scope 2)
2.86 tCO_2e/RMB 1 million

Direct (Scope 1) GHG emissions
10,420.08 tCO_2e

Direct (Scope 1) GHG emissions per revenue
1.44 tCO_2e/RMB 1 million

Indirect (Scope 2) GHG emissions
10,303.52 tCO_2e

Indirect (Scope 2) GHG emissions per revenue
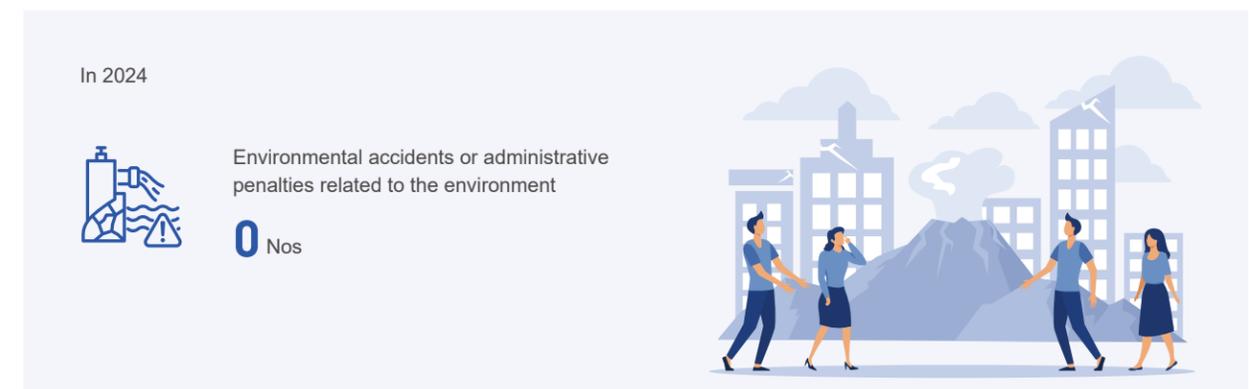**1.42** tCO_2e/RMB 1 million

Green Park Construction

We are proactive in maintaining the greenery within our premises. We implement pest control measures in accordance with our *Pesticide Safety Management System* and conduct regular watering and drainage to preserve the ecological balance of our surroundings.

We are building a digital twin platform for the Uniview Smart Park, which empowers operations and maintenance through 3D maps. At the platform backend, managers can intuitively understand the building's electricity & water consumption, and equipment usage. At the same time, the platform integrates building automation, intelligent lighting systems and other systems, greatly reducing labor costs and improving the quality and efficiency of park management. Our office area prioritizes the use of green designed office supplies, and all buildings in the Uniview Smart Park have obtained LEED green building certification.

Our office area prioritizes the use of green designed office supplies, additionally, through the installation of activated carbon adsorption processors for waste gas purification and cafeteria fume purifiers, we have effectively mitigated air pollution resulting from production and daily activities.

In 2024

Environmental accidents or administrative penalties related to the environment
0 Nos

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Resources Recycling

We are committed to achieving the goals of reduction of resource waste, compliant treatment, and recycling. We have classified and treated the waste generated in a science-based way and established waste disposal agreements with qualified third-party providers, with domestic waste subject to centralized treatment of third parties. Besides, we have tested domestic water on a regular basis and discharged domestic sewage into urban drainage facilities in accordance with laws and regulations to avoid environmental pollution caused by waste and wastewater. Regarding hazardous wastes, we have clarified the requirements for their collection, transfer, storage, and disposal in accordance with national standards and technical specifications, implemented the regulatory responsibilities of various departments for them, and standardized the procedures for their disposal on all fronts.

Indicator		2024	Unit
Discharge	Total hazardous waste	11.41	tonne
	Hazardous waste per revenue	0.0016	tonne/RMB 1 million
	Total non-hazardous waste	85.00	tonne
	Non-hazardous waste per revenue	0.01	tonne/RMB 1 million
	Sewage discharge	21,408	tonne
Resource Consumption	Comprehensive energy consumption	7,393.87	tonne of standard coal
	Comprehensive energy consumption per revenue	1.02	tonne of standard coal per RMB 1 million
	Office paper consumption	9.87	tonne
	Total water consumption	96,990	tonne
	Water consumption per revenue	13.38	tonne/RMB 1 million
	Electricity consumption	17,309,024	kWh
	Natural gas consumption	1,150,552	m^3
	Purchased heating power consumption	9,231.84	GJ
	Diesel consumption	4.45	tonne
	Gasoline consumption	253.74	tonne

Building A Responsible Supply Chain

At China Transinfo, we have established a sound and responsible supply chain management system, embedded ESG concepts into the full lifecycle management of the supply chain, and worked to create a sustainable industrial ecosystem. We have kept improving our supplier management system and implemented strict control mechanisms throughout the entire process of supplier screening, admission, and evaluation to further standardize supplier management.

Supplier Management

We have established a strict supplier admission mechanism and formulated internal policies and systems such as the *Management Measures for Procurement Suppliers*. We have clarified management requirements for multiple aspects such as supplier classification and assessment, and evaluated suppliers from multiple dimensions such as qualification review, ESG performance, and product quality. Besides, we have developed the *Project Supplier Evaluation Form* and kept optimizing the evaluation process for supplier performance, ensuring an objective and truthful reflection of the supplier's overall performance, and assisting suppliers in continuous improvement.

Supplier Screening Criteria in Terms of ESG

Environmental Factors

- **Carbon Emissions:** The supplier's GHG emissions and whether carbon reduction targets are established.
- **Energy Efficiency:** Energy usage efficiency and adoption of renewable energy (e.g., solar products).
- **Waste Management:** Waste generation volume, recycling rate, and compliance with environmental disposal standards.
- **Environmental Certifications:** Possession of relevant certifications (e.g., ISO 14001).

Social Factors

- **Labor Rights Protection:** Compliance with labor laws (working hours, wages, forced overtime, etc.), including mandatory accident insurance for workers.
- **Health & Safety:** Provision of a safe working environment (e.g., contractor safety certifications, pollution prevention during operations).
- **Employee Satisfaction:** Employee benefits, career development pathways, training programs, and recognition systems.

Governance Factors

- **Supply Chain Transparency:** Disclosure of supply chain data and acceptance of third-party audits.
- **Business Ethics:** Adherence to anti-corruption and anti-bribery policies.

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Risk Management Related to Supply Chain

We have identified supply chain risks, clarified our potential operational risks from both internal and external perspectives, and developed response mechanisms to enhance supply chain resilience. Besides, we have explored supply chain security measures, and used industry M&A, tech M&A, and the establishment of joint ventures and other methods to optimize supply chain layout, enhance supply chain technology level, and resist supply chain risks.

Identification of Supply Chain Risks ⟶	Response Mechanism for Supply Chain Risks
Internal risks: Production interruptions, inventory shortages and quality control issues **External risks:** Natural disasters, market fluctuations and supplier bankruptcies	**Multi-Source Procurement:** Avoid reliance on single suppliers by establishing a diversified sourcing network. **Geographic Dispersion:** Distribute supply chains across multiple regions to mitigate geopolitical risks and natural disasters. **Strategic Inventory Buffer:** Implement safety stock protocols based on lead time variability analysis and demand fluctuation modeling.

We require specific suppliers to sign the *Construction Safety Commitment Letter* and the *Environment Protection Declaration* to strictly control the safety and environmental risks of suppliers. In 2024, we attached great importance to identifying and assessing supply chain risks and required suppliers to sign the Conflict Mineral Commitment Letter, Export Control Commitment Letter, Compliance Commitment, and other documents to strengthen compliance management for suppliers.

We join hands with our partners to build a clean industrial ecosystem. We require suppliers to sign the *Supplier Integrity Commitment Letter*, in which we expressly set out the procurement code of conduct and other standards to prevent and curb the violations of disciplines and the law at the source. In 2024, we optimized the integrity clause in our procurement contracts, with all suppliers covered.

Supplier Communication

We deepen our strategic cooperation with suppliers through various forms. We effectively convey our supplier management standards and requirements by organizing and convening supplier quality summary seminars and conducting special surveys. We also discuss the latest industry trends and policy developments with our suppliers. In 2024, we participated in exhibitions for the highway M&E, rail transit, and traffic management industries. At the exhibitions, we communicated with the leaders of technical teams, sales teams, and production teams from our suppliers to discuss topics such as product quality and R&D innovation.

In 2024

Total number of suppliers
13,734

Number of suppliers from Hong Kong, Macao, and Taiwan
61

Number of Chinese mainland suppliers
13,636

Number of overseas suppliers
37

05

Achieving Stable Operation of the Business

At China Transinfo, we regard excellent corporate governance as the fundamental guarantee for achieving sustainable development. We are committed to building a modern governance system and keep improving the level of corporate governance. We strengthen risk management on all fronts and practice responsible business practices. In addition, we adhere to business ethics and pursue honest management. We also ensure technological ethics and information data security, achieve our stable and compliant operation, and work to create long-term values for stakeholders.

Our Actions

- ⊘ Corporate governance
- ⊘ Business ethics
- ⊘ Internal control of risks
- ⊘ Information security

Our Achievements

9 directors participated in anti-corruption training

4,368 employees attended anti-corruption training

Female directors accounted for 44.44%

We were certified with Level 3 Network Security Protection

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Corporate Governance

At China TransInfo, we strictly comply with the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Rules for Governance of Listed Companies* of the China Securities Regulatory Commission, the *Self-regulatory Guidelines No. 1 for Companies Listed on the Shenzhen Stock Exchange - the Standardized Operation of Companies Listed on the Main Board*, and the *Shenzhen Stock Exchange Stock Listing Rules*, and other pertinent laws, regulations, and normative documents. We have developed a basic management system, established a sound institutional guarantee system, and improved our corporate governance capabilities.

Our corporate governance structure has been improved, with the establishment of a corporate governance structure comprising the general meeting of shareholders, the Board of Directors, the Board of Supervisors, and the management. In 2024, we established a dedicated meeting mechanism for independent directors, with clear rights and responsibilities at each level, forming a science-based and effective division of responsibilities and check and balance mechanism. We attach great importance to the independence and diversity of the Board of Directors. Based on the performance of each director, we allocate members of special committees under the Board of Directors to continuously improve our decision-making ability. We set up four special committees under the Board of Directors, namely the Strategy Committee, the Nomination Committee, the Audit Committee, and the Remuneration and Appraisal Committee. The four special committees supervise, cooperate with and constrain each other, and effectively control our daily production and operation. Our Board of Directors consists of 9 directors, including 3 independent directors. The Board of Supervisors consists of 3 supervisors, including 1 employee supervisor. The proportion of our female supervisor is 44%.

In 2024, the Company convened 1 Shareholders' Meeting, 6 Board of Directors Meetings, and 5 Board of Supervisors Meetings. The Board of Directors convened specialized committee meetings including 2 independent directors' special meetings, 5 Audit Committee Meetings, 1 Compensation and Evaluation Committee Meeting, and 1 Strategy Committee Meeting. No Nomination Committee Meeting was conducted as there were no director nominations or senior management appointments during the year. Additionally, 1 Staff Congress was convened.

Internal Control of Risks

At China TransInfo, we continuously strengthen our internal control management system and base our efforts on the *Basic Norms for Enterprise Internal Controls*, the Guidelines for Application of Enterprise Internal Controls, the *Guidelines for Evaluation of Enterprise Internal Controls*, the *Guidelines for Auditing of Enterprise Internal Controls*, and the *Guidelines of Shenzhen Stock Exchange for the Internal Control of Listed Companies*, and other pertinent laws, regulations and normative documents. Accordingly, we have established a sound internal control system encompassing financial control, operational control, compliance control, and information disclosure. We have engaged a third-party independent agency to verify the internal controls, ensuring the compliance and effectiveness of the system.

We have put great efforts to promote the construction of a compliance management system and operated our business with integrity and standardization. Furthermore, we have established and improved internal management and control systems to continuously improve our governance level. As of the end of 2024, we have developed a total of 91 rules and regulations, including 32 compliance governance systems for listed companies and 59 internal management systems for groups. During the reporting period, we revised 32 systems to ensure compliance with the latest higher-level laws and continuously normalize, standardize and refine our management tasks. This action improved our overall operation management level and provided institutional support for our compliance governance and lawful operation.

We actively promote a comprehensive risk management system, continue to improve the risk prevention mechanism for prevention before incidents, control during incidents, and remediation after incidents, and conduct regular risk assessments. In 2024, we compiled and distributed the *Compilation of the Rules and Regulations of China TransInfo Technology Co., Ltd.* (2024 Edition), further strengthening the standardization and operability of risk control. We effectively managed risk control compliance by strengthening the construction of management systems, formulating internal control related regulations, compiling regulations and taking other actions. These actions ensured the stable operation and sustainable development of business.

In order to enhance employees' compliance awareness and management level on all fronts, we held compliance training for all employees, including new ones, in 2024. The training, which covers topics such as anti-commercial bribery, ESG compliance, trade compliance, and advertising compliance, provided internal guidance for relevant personnel in departments involved. Through systematic training, we further enhanced employees' compliance awareness and ensured compliance of all business operations with the laws & regulations and our internal policies.

Law lecture by China Transinfo

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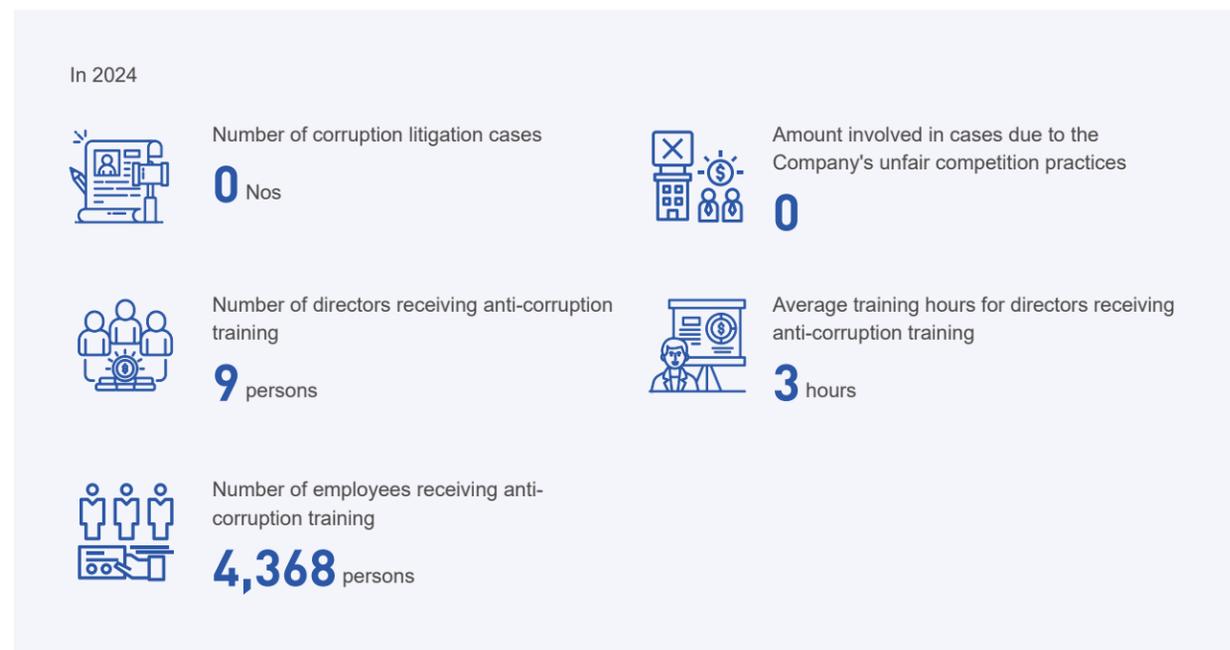2024 | Environmental, Social and Governance Report

Business Ethics

At China TransInfo, we abide by business ethics and strictly comply with the *Anti-Unfair Competition Law of the People's Republic of China*, the *Interim Provisions on Banning Commercial Bribery*, and other pertinent laws and regulations. We have developed the *Anti-Corruption Business Code* and the *Management Measures for Anti-fraud Reporting* to ensure an honest, transport and fair business environment. We have ensured that business ethics management runs through all aspects of its business activities through a sound policy system, strict supervision mechanism, and in-depth cultural enrichment.

We continue to improve our anti-corruption system. We have established a three-tier professional ethics management system comprising the Management, affiliated companies, and the Internal Audit Department to monitor our ethical behaviors in every aspect and ensure our standardized operations. We maintain a "zero tolerance" attitude towards bribery and corruption. In our internal audits and risk assessments, we focus on whether we, our partners, and our suppliers act in accordance with our requirements on business ethics, anti-corruption, human rights, health and safety, the environment, and other social and environmental factors, so as to provide guarantees for us to prevent and reduce corruption risks in advance In 2024, our internal audits prove that behaviors of us, our partners, and our supplier met the requirements.

We have set up public reporting channels such as email, telephone, and mailboxes, and encourage informed individuals to report any violation. To encourage employees and external stakeholders to actively participate in anti-corruption work, we have established a comprehensive whistleblower protection system. Upon receiving a report, we will immediately initiate a thorough probe into the violation and safeguard the information of the whistleblower to prevent any form of threat or retaliation. For whistleblowers that provide effective clues, we will also provide corresponding material rewards. This system has not only enhanced the transparency of our anti-corruption work, but also provided strong support for our employees and partners.

We attach great importance to cultivating a culture of integrity and integrate the concept of integrity into the daily work of our employees with various forms of publicity and educational activities. New employees are required to sign an agreement containing business ethics and anti-corruption provisions upon joining us, in order to strengthen their compliance awareness from the source. In addition, we launch integrity training programs and publicize anti-corruption management systems on a regular basis to enhance the awareness and execution of business ethics and anti-corruption requirements among all employees. In 2024, we were not involved in corruption litigation cases.

In terms of anti-monopoly and fair competition, we strictly abide by relevant laws and regulations to ensure the fairness and transparency of market competition. We keep monitoring our own and our partners' behaviors through internal audits and compliance checks, and eliminate any behavior that may violate the anti-unfair competition management system. In 2024, our audit found no violations of anti-monopoly and fair competition requirements.

In 2024

Number of corruption litigation cases
0 Nos

Amount involved in cases due to the Company's unfair competition practices
0

Number of directors receiving anti-corruption training
9 persons

Average training hours for directors receiving anti-corruption training
3 hours

Number of employees receiving anti-corruption training
4,368 persons

Information Security

At China Transinfo, we regard network security and information security as the lifeline of enterprise development. We have built a comprehensive and multi-level information security protection system. We strictly comply with laws and regulations such as the *Cybersecurity Law of the People's Republic of China*, the *Management Measures for Information Security Level Protection* and the *Personal Information Protection Law of the People's Republic of China*. We have built a sound information security management framework and operational mechanism. In 2024, we had no incidents of data security or customer privacy breaches.

01

Mechanism and Certification System

We have established a systematic information security management system, including core documents such as the *Information Security Specification of China Transinfo Technology Co., Ltd.* and the *Information Security Policy of China Transinfo Technology Co., Ltd.* With these documents, we have incorporated issues such as information security and consumer privacy protection into the overall management framework. We actively benchmark international security compliance standards. We have obtained the certifications for ISO 27001 information security management system, ISO 27017 cloud security management system, ISO 27018 cloud privacy management system, ISO 27701 privacy management system, and Level 3 Network Security Protection Certification. With these certifications, we have achieved standardized, normalized, and systematic management of information security.

02

Technical Protection System

We have built a three-dimensional security protection technology system, which achieves comprehensive security protection of data information at boundaries, endpoints, networks, and access through endpoint detection and response mechanisms, research and development of cloud security protection systems, access control policies for network resource, and other methods. Our data leakage prevention architecture has effectively realized functions such as unified identity control, endpoint security access, transparent encryption of documents, and boundary security isolation. Besides, we have conducted regular information security reviews.

03

Security Operation Capability

The security ecosystem is also a priority for us. To this end, we have developed a cloud network security system. It can reinforce security at the exit, region, and endpoint levels and achieve visual security across the entire network, with functions such as pre-event inspection, in-event analysis, post-event detection, and joint disposal. At the same time, we have upgraded our network security protection system, secure video system and other systems to ensure network security and stability.

04

Information Security Training

We give training sessions on information security and privacy protection on regular basis. The latest security threat cases are used to design targeted training content, thereby enhancing employees' awareness of information security and strengthening our security protection capabilities. We invite a third party to conduct information security checks and develop emergency plans for data breach to address weak links. During the training process, we promote and implement the plans and launch attack and defense drills. Besides, we update the training content and emergency plans dynamically based on the results.

Appendixes

Appendix 1 Key Performance Table

Environmental Performance ▶

Indicator		2024	Unit
Discharge	Total hazardous waste	11.41	tonne
	Hazardous waste per revenue	0.0016	tonne/RMB 1 million
	Total non-hazardous waste	85.00	tonne
	Non-hazardous waste per revenue	0.01	tonne/RMB 1 million
	Sewage discharge	21,408	tonne
Environmental management	Environmental accidents or administrative penalties related to the environment	0	Nos
GHG	Total GHG emissions (Scope 1 + Scope 2)	20,723.60	tCO_2e
	GHG emissions per revenue (Scope 1 + Scope 2)	2.86	tCO_2e/RMB 1 million
	Direct (Scope 1) GHG emissions	10,420.08	tCO_2e
	Indirect (Scope 2) GHG emissions	10,303.52	tCO_2e
	Direct (Scope 1) GHG emissions per revenue	1.44	tCO_2e/RMB 1 million
	Indirect (Scope 2) GHG emissions per revenue	1.42	tCO_2e/RMB 1 million
Resource Consumption	Comprehensive energy consumption	7,393.87	tonne of standard coal
	Comprehensive energy consumption per revenue	1.02	tonne of standard coal per RMB 1 million
	Office paper consumption	9.87	tonne
	Total water consumption	96,990	tonne
	Water consumption per revenue	13.38	tonne/RMB 1 million
	Electricity consumption	17,309,024	kWh
	Natural gas consumption	1,150,552	m^3
	Purchased heating power consumption	9,231.84	GJ
	Diesel consumption	4.45	tonne
	Gasoline consumption	253.74	tonne

Social Performance ▶

Indicator		2024	Unit
Employment of employees	Total number of employees	6,380	person
	Number of employees by employment type	Full-time employee	6,380	person
		Part-time employee	0	person
	Number of employees by rank	Senior management	6	person
		Middle management	821	person
		Regular staff	5,553	person
	Number of employees by gender	Male	4,806	person
		Female	1,574	person
	Number of employees by age	30 years old and below	2,774	person
		31-40 years old	2,706	person
		41-50 years old	773	person
		Above 50 years old	127	person
	Number of employees by region	Chinese mainland	6,306	person
		Overseas and Hong Kong, Macao and Taiwan region	74	person
	Total number of new employees	825	person
	Percentage of labor contract coverage	100	%
	Percentage of employees with social insurance	100	%
	Employee turnover	1,084	person
	Employee turnover rate	14.53	%
	Employee turnover rate by gender	Male	14.58	%
		Female	14.41	%
	Employee turnover rate by age	Under 30 years old	18.39	%
		31-40 years old	12.07	%
		41-50 years old	7.90	%
		Above 50 years old	24.41	%
	Employee turnover rate by region	Chinese mainland	14.29	%
		Overseas and Hong Kong, Macao and Taiwan region	30.12	%
Occupational Health and Safety	New cases of occupational diseases in employees	0	person
	Employee health examination rate	94.38	%
	Number of deaths due to work-related injuries	0	person
	Number of hours lost due to work-related injuries	4,780	hour

Indicator		2024	Unit
Employee Training and Development	Expenditure on annual training	177.70	RMB 10,000
	Coverage rate of employee training	90.94	%
	Number of training held	284	Nos
	Total number of employees trained	5,803	person
	Total hours of employee training	302,466	hour
	Trainees by gender — Male	5,141	person
	Trainees by gender — Female	662	person
	Trainees by employment type — Senior management	6	person
	Trainees by employment type — Middle management	453	person
	Trainees by employment type — Grassroots employee	5,344	person
	Average training hours per employee by gender — Male	52.20	hour
	Average training hours per employee by gender — Female	51.52	hour
	Average training hours per employee by employment type — Senior management	16.00	hour
	Average training hours per employee by employment type — Middle management	135.20	hour
	Average training hours per employee by employment type — Grassroots employee	45.12	hour
Product Quality and Service	Percentage of total products sold or shipped subject to recalls for safety and health reasons	0	%
	Complaints about products and services received	108	Nos
	Incidents of customer privacy and information security breach	0	Nos
R&D and Innovation	Total scientific research investment	1.134	RMB billion
	Proportion of R&D investment in revenue of main business	15.64	%
	R&D team — Headcount	2,583	person
	R&D team — Proportion	40.49	%
	Number of intellectual properties held	5,583	Nos
	Number of patents granted	3,208	Nos
	Number of software copyrights	1,822	Nos
Supply Chain Management	Total number of suppliers	13,734	Nos
	Number of Chinese mainland suppliers	13,636	Nos
	Number of suppliers from Hong Kong, Macao, and Taiwan	61	Nos
	Number of overseas suppliers	37	Nos
Community Development	Total investment in public welfare	80.2	RMB 10,000

Governance Performance ▶

Indicator		2024	Unit
Business Ethics and Anti-corruption	Number of corruption litigation cases	0	Nos
	Number of directors receiving anti-corruption training	9	person
	Average training hours for directors receiving anti-corruption training	3	hour
	Number of employees receiving anti-corruption training	4,368	person
	Amount involved in cases due to the Company's unfair competition practices	0	RMB 10,000
Corporate Governance	Number of directors	9	person
	Number of female directors	4	person
	Proportion of female directors	44.44	%
	Proportion of female employees in senior management	33.33	%
Corporate Operation	Operating income	7.249	RMB billion

Appendix 2 GRI content index

Statement of use   China TransInfo Technology Co., Ltd. has reported the information cited in this GRI content index for the period 2024.01.01-2024.12.31 with reference to the GRI Standards.

GRI 1 used   GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE	LOCATION
GRI 2: General Disclosures 2021	2-1 Organizational details	P5-P6
	2-2 Entities included in the organization's sustainability reporting	P1
	2-3 Reporting period, frequency and contact point	P1-P2
	2-6 Activities, value chain and other business relationships	P7-P10
	2-7 Employees	P51-P60
	2-8 Workers who are not employees	P55
	2-9 Governance structure and composition	P73
	2-10 Nomination and selection of the highest governance body	P73
	2-11 Chair of the highest governance body	P3-P4
	2-12 Role of the highest governance body in overseeing the management of impacts	P12
	2-13 Delegation of responsibility for managing impacts	P12
	2-14 Role of the highest governance body in sustainability reporting	P12
	2-16 Communication of critical concerns	P13
	2-23 Policy commitments	P73
	2-24 Embedding policy commitments	P73
	2-27 Compliance with laws and regulations	P73
	2-29 Approach to stakeholder engagement	P13
GRI 3: Material Topics 2021	3-1 Process to determine material topics	P14
	3-2 List of material topics	P14
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	P6
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	P75
	205-2 Communication and training about anti-corruption policies and procedures	P75
	205-3 Confirmed incidents of corruption and actions taken	P75
GRI 302: Energy 2016	302-1 Energy consumption within the organization	P67
	302-2 Energy consumption outside of the organization	P67
	302-3 Energy intensity	P67
	302-4 Reduction of energy consumption	P66

GRI STANDARD	DISCLOSURE	LOCATION
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	P66
	303-2 Management of water discharge-related impacts	P66
	303-3 Water withdrawal	P77
	303-4 Water discharge	P77
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	P66
	304-3 Habitats protected or restored	P63-P64
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	P66
	305-2 Energy indirect (Scope 2) GHG emissions	P66
	305-4 GHG emissions intensity	P66
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	P66
	306-2 Management of significant waste-related impacts	P66
	306-3 Waste generated	P67
	306-5 Waste directed to disposal	P67
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	P68
	308-2 Negative environmental impacts in the supply chain and actions taken	P68-P69
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	P55
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	P54
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	P57
	403-2 Hazard identification, risk assessment, and incident investigation	P57-P58
	403-3 Occupational health services	P57-P58
	403-5 Worker training on occupational health and safety	P57-P58
	403-6 Promotion of worker health	P57-P58
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	P57-P58
	403-8 Workers covered by an occupational health and safety management system	P57-P58
	403-9 Work-related injuries	P58
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	P56
	404-2 Programs for upgrading employee skills and transition assistance programs	P56
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	P53, P73
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	P53
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	P68-P69
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	P58, P68

GRI STANDARD	DISCLOSURE	LOCATION
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	P68
	414-2 Negative social impacts in the supply chain and actions taken	P69
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	P76

Appendix 3 Index Table of *Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange - Sustainable Development Report (Trial)*

Criteria	S/N	Topics	Corresponding clauses	Corresponding chapters
The environment	1	Response to climate change	Articles 21 to 28	Pushing for Green Operation
	2	Pollutant emissions	Article 30	Pushing for Green Operation
	3	Waste treatment	Article 31	Pushing for Green Operation
	4	Ecosystem and biodiversity conservation	Article 32	Conducting Public Charity Activities / Pushing for Green Operation
	5	Environmental compliance management	Article 33	Pushing for Green Operation
	6	Energy utilization	Article 35	Pushing for Green Operation
	7	Water resource utilization	Article 36	Pushing for Green Operation
	8	Circular economy	Article 37	Pushing for Green Operation
The society	9	Rural revitalization	Article 39	Conducting Public Charity Activities
	10	Social contributions	Article 40	Conducting Public Charity Activities
	11	Innovation-driven development	Article 42	Consolidating the Foundation for Scientific Research
	12	Technology ethics	Article 43	Consolidating the Foundation for Scientific Research
	13	Supply chain security	Article 45	Building A Responsible Supply Chain
	14	Fair treatment of small and medium-sized enterprises	Article 46	Building A Responsible Supply Chain
	15	Product and service safety and quality	Article 47	Consolidating the Foundation for Scientific Research
	16	Data security and customer privacy protection	Article 48	Information Security
		Employees	Article 50	Enabling Employees to Grow and Achieve Their Potential
Sustainability-related governance	18	Due diligence	Article 52	ESG Management
	19	Communication with stakeholders	Article 53	ESG Management
	20	Anti-commercial bribery and anti-corruption	Article 55	Business Ethics
	21	Anti-unfair competition	Article 56	Business Ethics

Appendix 4 Reader's Comment

Dear reader,

Thank you for spending time in reading the *China TransInfo Technology Co., Ltd. ESG Report 2024*. We look forward to your comments and suggestions on the report and our work. You may fill out the questionnaire and send it back to us by mailing or emailing the scanning copy. Your valuable comments will be much appreciated!

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1. Which category of China TransInfo's stakeholders does your entity belong to?

☐ Shareholder   ☐ Investor   ☐ Employee   ☐ Supplier

☐ Customer   ☐ Government   ☐ Community   ☐ Academic institutions

☐ NPO   ☐ Other _____

2. Does the report cover the information of your concern?

☐ Yes   ☐ Some   ☐ No

3. In your point of view, how well does China TransInfo perform in the following aspects?

Corporate governance:	☐ Very good	☐ Good	☐ Average	☐ Poor	☐ Very poor
Environmental management:	☐ Very good	☐ Good	☐ Average	☐ Poor	☐ Very poor
Social responsibility:	☐ Very good	☐ Good	☐ Average	☐ Poor	☐ Very poor
ESG management:	☐ Very good	☐ Good	☐ Average	☐ Poor	☐ Very poor

4. How do you rate the report in disclosure information content, accuracy, completeness, readability, and layout design?

Disclosure information content:	☐ Very high	☐ High	☐ Average	☐ Low	☐ Very low
Accuracy:	☐ Very high	☐ High	☐ Average	☐ Low	☐ Very low
Completeness:	☐ Very high	☐ High	☐ Average	☐ Low	☐ Very low
Readability:	☐ Very good	☐ Good	☐ Average	☐ Poor	☐ Very poor
layout design:	☐ Very reasonable	☐ Reasonable	☐ Average	☐ Poor	☐ Very poor

5. What are your comments and suggestions on China TransInfo's ESG efforts?

6. What are your comments and suggestions on the preparation of China TransInfo's ESG report?