



江蘇寧滬高速公路股份有限公司  
JIANGSU EXPRESSWAY COMPANY LIMITED

»»»» The Road »»»»

**TOWARDS A  
BETTER LIFE**



Jiangsu Expressway Company Limited

## 2019 Social Responsibility Report





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# Message from the Chairman

 *Sun Xibin*

Secretary of the Party committee and Chairman  
Jiangsu Expressway Company Limited



The greatest truths are the simplest, so is hard work. 2019 marked a year during which we took on our social responsibilities and made great strides, especially in terms of industrial upgrading, operation and management, and the transformation of service areas. We joined hands with all sectors of the society to build a better future of sustainable development.

**Innovative development is our driving force.**

Proceeding from the demands of Jiangsu's socioeconomic development, we firmly grasp the opportunity of the integrated development of the Yangtze River Delta. Guided by the "One Core and Two Supplements (core business of toll road and bridge operation supplemented by finance and real estate)" strategy, we continuously build up our main business while tapping new potentials of the industrial layout. Our construction projects of highway bridge, road, and river passage have been carried out in an orderly manner. Meanwhile, valuable experience of "going global" was harvested from international toll road asset acquisition, contributing our wisdom to build a modern integrated transportation system in Jiangsu Province.

**To ensure safe operation is our sacred mission.**

With a firm belief in full life cycle and preventive maintenance, we have built our maintenance brand with regional characteristics through scientific decision-making and precise maintenance. We lifted the MQI and PQI indexes across the board and achieved 100% excellence rate of Class I and Class II bridges. As a forerunner of "centralized maintenance", we guaranteed traffic order of super high flow roads during construction to minimize the impact on public travel, and maximize people's satisfaction.

**Smooth traffic is our engraved responsibility.**

With an aim to build "integrated traffic", we introduced the "fast transport" mode focusing on quality and traffic order. By applying a wealth of advanced technologies such as precise lane control, lane splitting control, emergency lane control, and continuous access express lane, we achieved a result of unimpeded traffic of 240,000 vehicles for a single day. By launching the first national helicopter emergency rescue drill of roads with heavy traffic burdens, and the air-ground rescue system, our efficiency of hindrance clearance and rescue were proved unparalleled. Moreover, our "smooth traffic" demonstration project was recognized as the excellent case of science and technology innovation among national state-owned enterprises along with two other shortlisted companies. We, at the same time, continued to improve the efficiency of the "Tripartite Dispatch System for One Road" to enhance the ability of hindrance clearance.

**Green development requires our unremitting efforts.**

Committed to the concept of green and low-carbon

development, we focused on the comprehensive road renovation projects to maintain a clear traffic environment this year, and continued our efforts to the project of "five changes for happiness" to beautify the landscape of station areas. We also tirelessly pushed for low-carbon highways and innovated in green maintenance technologies to protect the ecology.

**Heartfelt services are our enduring commitment.**

Upholding the customer-centered service philosophy, we regard "transportation + tourism" and "transportation + culture" as key methods to promote the transformation and upgrading of service areas, and have achieved remarkable results in improving both work efficiency and safety management. With our unremitting efforts, Yangcheng Lake Service Area, recognized by China Highway and Transportation Society as "Most Beautiful Service Area with Garden Culture", and Fangmaoshan Service Area, were awarded the "2019 National Expressway Service Area with Tourism Theme", winning two seats out of five in total. Moreover, the reopening of Douzhuang Service Area put a remarkable finishing touch to business model transformation of service areas along Shanghai-Nanjing Expressway, better catering to public demands. Through various competitions of quality service, we encourage employees to provide more efficient, convenient, heartfelt, and considerate services to improve the satisfaction of drivers and passengers. The joint development with partners also promotes the progress of the whole industry and pushes forward win-win cooperation. In the meantime, we grow along with our employees, care for their needs, and organize volunteer activities to contribute our efforts to a harmonious and better society together.

"A tree has to strike a firm root before it can flourish. A river has to have a fully dredged source before it can flow unceasingly far." We will adhere to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and further implement the guiding principles of the 19th CPC National Congress and the second, third, and forth plenary sessions of its 19th CPC Central Committee to develop toward the goal of becoming a "benchmark listed company for toll roads & bridges and highway service window of Jiangsu Province". We will pursue stable capital fission, high-quality operations management, long-term corporate governance, and great progress in Party building to turn a new page in our sound development.

# About Us

## Company Profile

Established in August 1992, Jiangsu Expressway Company Limited is the only listed company in the transportation and infrastructure industry of Jiangsu Province. The Company is principally engaged in the investment, construction, operation and management of Shanghai-Nanjing Expressway, and owns or holds shares in a number of toll roads within Jiangsu Province, as well as participating in the development and operation of other field (including finance, similar financial pattern, real estate and industry ) along the toll roads. Currently, the Company speeds up transformation and upgrading to establish a business portfolio covering infrastructure construction, equity investment, and commercial services complex. As at 31 December 2019, the Company had five wholly-owned subsidiaries, four non-wholly-owned subsidiaries and eleven joint-ventures, with total assets amounting to RMB 55.6 billion, net assets amounting to approximately RMB 32.68 billion and a total of 3,283\* employees.



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Note: The employee data only covers the working employees of the parent company

## 2019 Major Honors and Awards

Honor/Award	Winner	Issuer
2019 "Golden Quality" Social Responsibility Award	Jiangsu Expressway	Shanghai Securities News
Growing Enterprise Award of "GoldenBee CSR Report Honor Roll 2019"	Jiangsu Expressway	China Sustainability Tribune
The Second "Top 10 Credit Units" in the Transportation Industry of Jiangsu Province	Jiangsu Expressway	Jiangsu Provincial Department of Transport
2018 Work Safety Assessment Excellent Unit	Wuxi Management Office	Wuxi Municipal People's Government
"National Reliable QC Team"	Suzhou Toll Station	China Association of Communication Enterprise Management
Top Ten Cases of Ideological and Political Work of Employees of Enterprises Affiliated to Jiangsu Province	Wuxi East Toll Station	Jiangsu Federation of Trade Unions
2018 Outstanding Youth Learning Club in Jiangsu	Ningzhen Management Office	Jiangsu Provincial Committee of the Communist Youth League
Outstanding Service Method was rated as the Top 10 Advanced Operation Methods for Employees of Enterprises Affiliated to Jiangsu Province	Nanjing Toll Station	Jiangsu Provincial and Ministerial Enterprises and Institutions Trade Union

## Performance Data

Performance indicator	Unit	2017	2018	2019
Business revenue	RMB '00 million	94.56	99.69	<b>100.61</b>
Profit	RMB '00 million	36.85	44.76	<b>43.12</b>
Return on investment	RMB/share	0.71	0.87	<b>0.84</b>
The arrival for road network hindrance clearance within 20 minutes	%	97.1	97.6	<b>98.3</b>
Resumption of normal traffic within 1 hour	%	98	98.8	<b>98.9</b>
Satisfaction towards hindrance clearance	%	100%	100%	<b>100%</b>
Pavement Quality Index (PQI)	Score	93.23	94.04	<b>95.80</b>
Maintenance Quality Indicator (MQI)	Score	95.26	95.83	<b>97.07</b>
Density of direct energy consumption	Metric tons of standard coal equivalent/ RMB '00 million	10.86	5.75	<b>7.68</b>
Employee satisfaction	Score	74.07	74.71	<b>92.3</b>

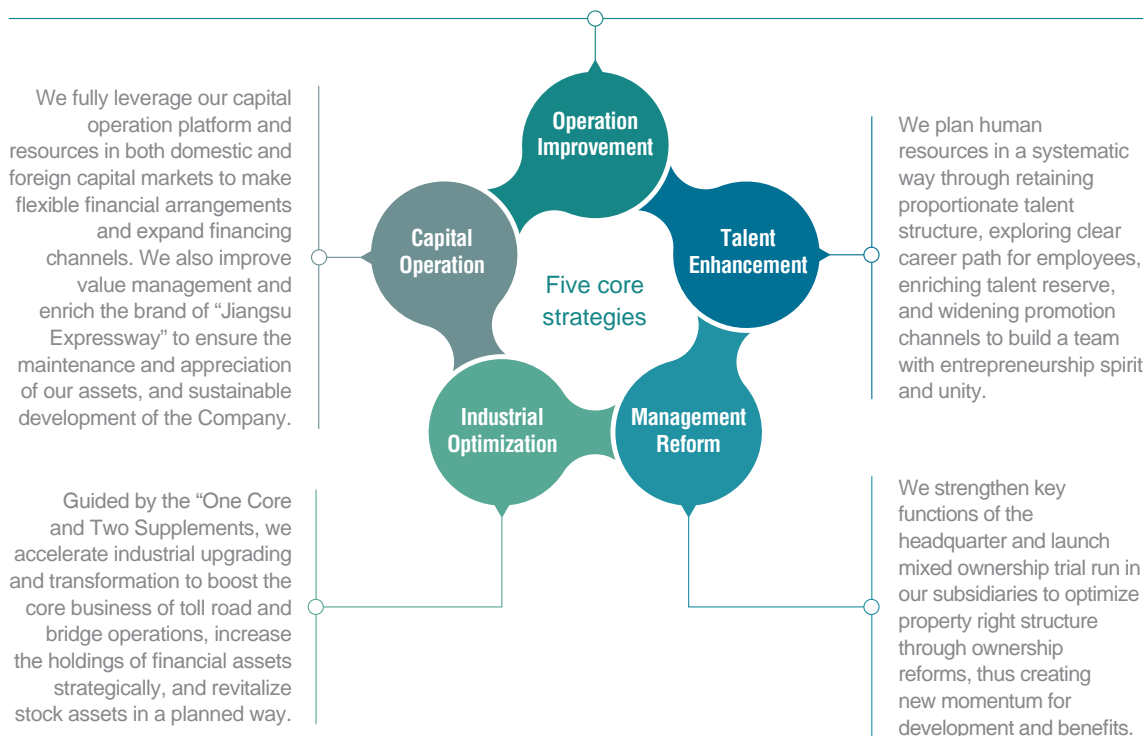
# Strategy and Governance

A sound management system and a clear strategy underpin the healthy and sustainable development of an enterprise. The Company strictly adheres to local laws and regulations and business ethics, and improves its organization and corporate governance by strengthening its risk management ability. The Company incorporates the concept of sustainable development into management to make sure its decision-making and value creation take into account both social and environmental impacts so as to integrate social responsibility objectives with business goals.

## Corporate Strategy

2019 marked the year of securing decisive victory in building a moderately prosperous society in all respects and the final year for completing the Thirteenth Five-Year Plan. Focusing on the “One Core and Two Supplements” strategy, the Company stuck to five core strategies—operation improvement, industrial optimization, capital operation, management reform and talent enhancement to promote capital fission and achieve long-term, steady and rapid development.

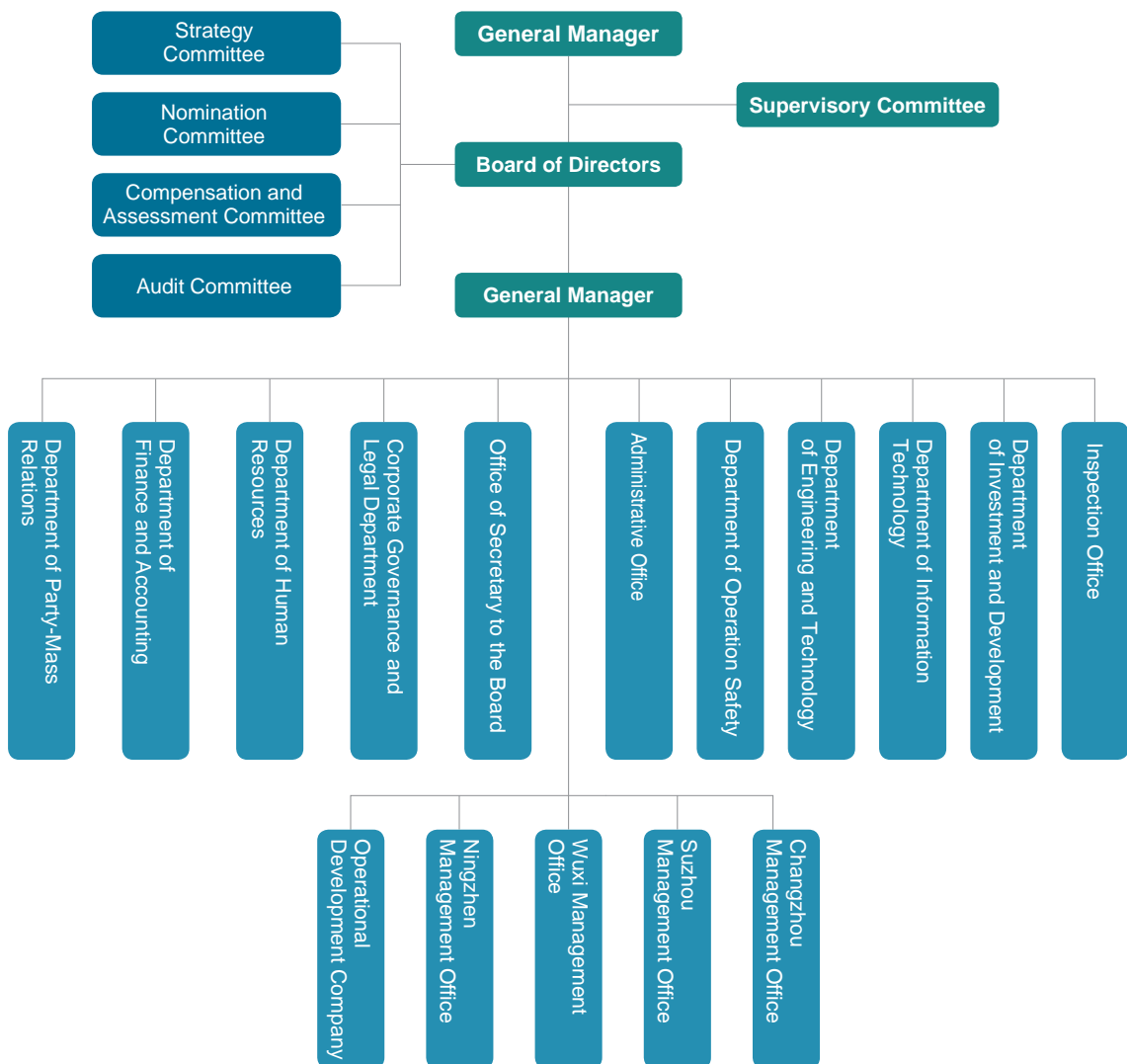
Aiming to fully address the needs of road users, we build a modern maintenance management system with standard procedures, technologies and quality service. We strive to be a highway operation and management company that meets world standards as well as a benchmarking company for the industry in China.





## Corporate Governance

The Company strictly complies with listing rules and relevant laws and regulations both home and abroad. In 2019, according to the latest requirements of the China Securities Regulatory Commission and the Stock Exchange, the Company revised and improved procedures of the general meetings of shareholders, meeting of the board of directors and meeting of the supervisory committee in terms of compliance. This efforts improved the compliance, independence and transparency of corporate affairs and ensured that the directors and senior managers could earnestly perform their duties from the perspective of safeguarding the interests of shareholders and of the Company. Through the abovementioned three-meeting mechanism, the Company saw an improvement in its decision-making, risk prevention, and compliance. In 2019, the Company held one annual general meeting of shareholders, one interim general meeting of shareholders, nine meetings of the board of directors, and eight meetings of the supervisory committee.



## Compliance and Risk Management

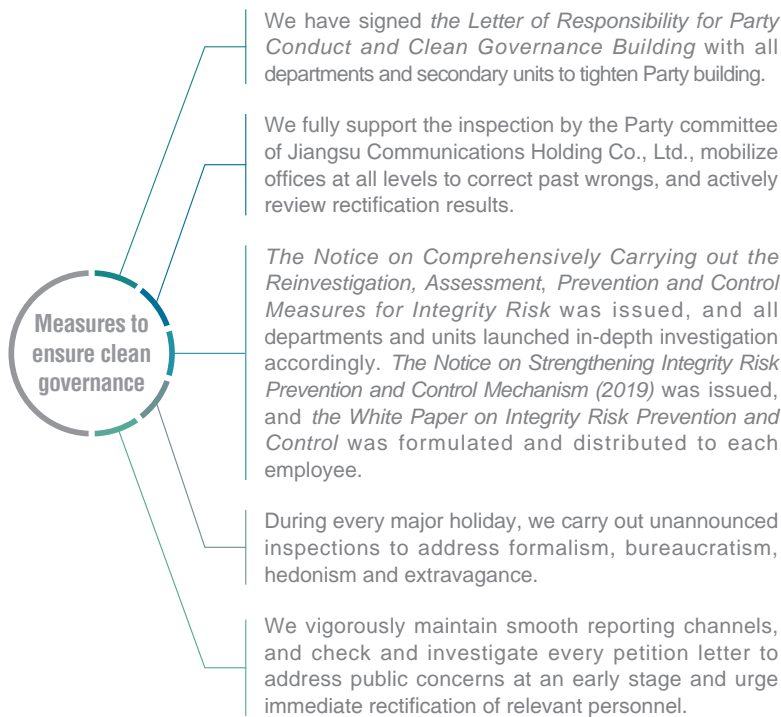
The Company promotes the development of state-owned enterprise under the rule of law, and continuously strengthens its risk control and management. In 2019, the Company promoted the development and management of a comprehensive legal risk prevention and control system, and revised related rules and regulations, such as *Contract Management Measures*, *Legal Affairs Management Measures*, and *Bidding and Procurement Management Measures*, to consolidate the legal base of its production and operation, and make risk control more specific, procedural, reviewable, and assessable. Tightened risk control ensures 100% coverage of internal and external legal review of major contracts, decisions, and regulations. In addition, the Company further improved the awareness of risk identification and prevention of its management personnel through trainings and workshops to ensure effective risk control in routine work.

## Investor Relations

The Company diligently fulfills its responsibility of information disclosure, and establishes a two-way communication channel with investors. Through various media channels, investors can accurately and timely grasp the latest developments of the Company, which facilitates objective and sound investment decision making. In 2019, the Company issued 54 public announcements simultaneously both in and outside China, held over 50 investors' meetings, more than 10 strategic meetings, and over 20 teleconferences. The Company also organized two overseas roadshows and over 20 face-to-face investors' meetings in a bid to pass on transparent, true and objective information to investors.

## Anti-corruption Management

The Company strictly complies with the *Anti-Embezzlement and Bribery Law*, *Anti-Money Laundering Law*, *Criminal Law*, *Self-discipline Guidelines of the Communist Party of China*, *Supervision Law of the People's Republic of China*, and *Provisions on the Integrity for Officials of State-Owned Enterprises*. The Company makes a continuous effort to strengthen the education of the Party's working style and working integrity, improvement of the anti-corruption system, and the prevention and control of integrity risks. By establishing a strict accountability system, we fully leverage the coordinated supervision of discipline and law, and mechanisms to allow for and address errors of Party members to lay a solid foundation for our high-quality development. In 2019, we accelerated the building of a system that boosts corruption prevention and control, and successively distributed the *Opinions on the Establishment of Collaborative Supervision Mechanism (Trial)* (Jiangsu Expressway Party Committee [2019] No. 40), the *General Notice on Circulating the Implementation Opinions on Strengthening the Establishment of Corruption Risk Prevention and Control Mechanism (2019)* (Jiangsu Expressway Party Committee [2019] No. 50), and the *Notice on Circulating the Management Measures of "Three Members" for Grassroots Supervision of Jiangsu Expressway (SGJ[2019]No.2)*. In addition, we signed the *Letter of Responsibility for Party Conduct and Clean Government* with all departments and secondary units, carried out in-depth investigation on the risk of integrity in all units and departments, and put the work related to party conduct and clean government into practice. Due to our consistent efforts, the Company and its employees were not involved in any corruption litigation in 2019.



In 2019, the Company organized **4** trainings on anti-corruption and work ethics, covering **800** participants; it completed the investigation and rectification of **886** integrity risk points for **187** positions, including **68** tier-1 integrity risk points, **517** tier-2 ones and **301** tier-3 ones.

CASE ▶

### Innovative supervision mechanisms strengthen the prevention and control of corruption risks

In 2019, the Company set up a coordinated supervision mechanism to mobilize the power of legal supervision and discipline inspection in the fields of project related decision-making, approval, tendering and bidding, construction, quality management, material procurement, "the decision-making of major issues, major officials appointment, major project arrangements, and use of large-volume capital", and corporate governance. By the coordinated supervision, information sharing, and alternate-appointment of corporate legal personnel and disciplinary inspection and supervision personnel, we hope to tap the full potential of supervisory resources. At the same time, the Company also assigned a collaborative supervision team, staffed by a discipline review specialist and a legal supervision specialist. Through such an innovative mode, mutual support and complementarity are ensured. The whole process supervision underpins the sound and sustainable development of the Company.

## Party Building

The Company, committed to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the guiding principles of the 19th CPC National Congress, strongly deepens Party building, strictly strengthens political awareness and responsibility, and earnestly implements all plans made by the Party committee. In 2019, through reinforcing ideological and political work, training a contingent of competent and professional officials, strengthening primary-level party organizations, and building a harmonious enterprise and corporate culture, the Company garnered more forces for innovation-driven development, united its employees more closely, and expanded its influence. In addition, the Company stayed firm in leading high-quality development with Party building through various activities, such as theme education campaign, group workshop, field investigation, training and awards event.



In 2019, the Company's Party building activities totaled **220** hours, covering **565** Party members.

# Social Responsibility Management

Fulfilling social responsibility guarantees our competitiveness and long-term sound and sustainable development. As a company devoted to "providing access to a better life for the public through better services", the Company not only integrates corporate social responsibility into its fabric, but also weaves the concept of sustainable development into its vision, mission, value and strategy. It continuously cultivates professional advantages, and strengthens social responsibility management to promote the coordinated development of the economy, society and environment.

## Social Responsibility Philosophy

Responsibility stems from mission and begins with strategy. Adhering to the core values of "responsible and effective, responsible and people oriented", the Company integrates the five key social responsibility areas and CSR concepts into its management and operation. We encourage the circulation of the CSR philosophy and awareness among employees to lay a solid ideological foundation for our social responsibility management.

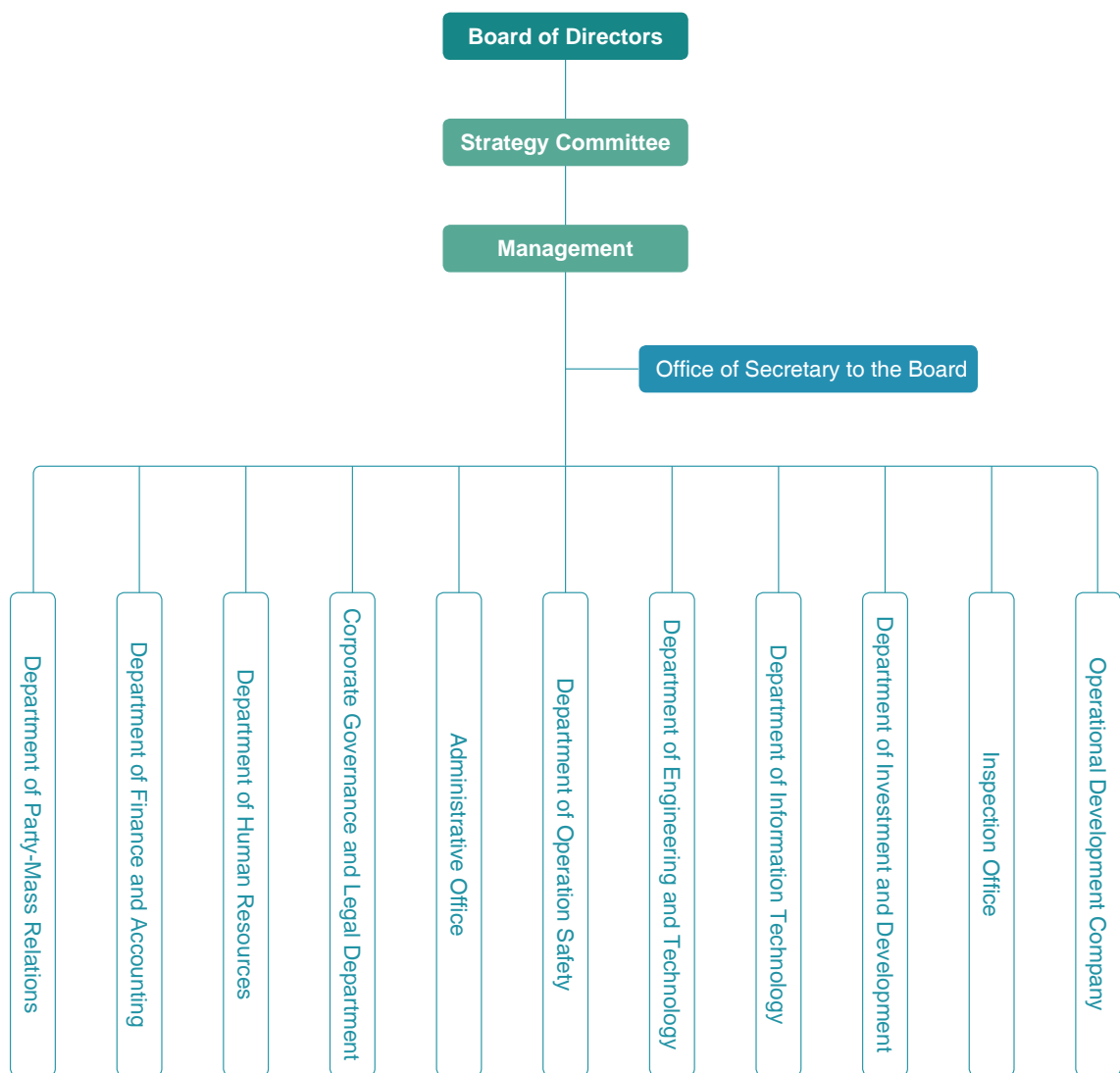


Keys social responsibility areas



## Social Responsibility Management System

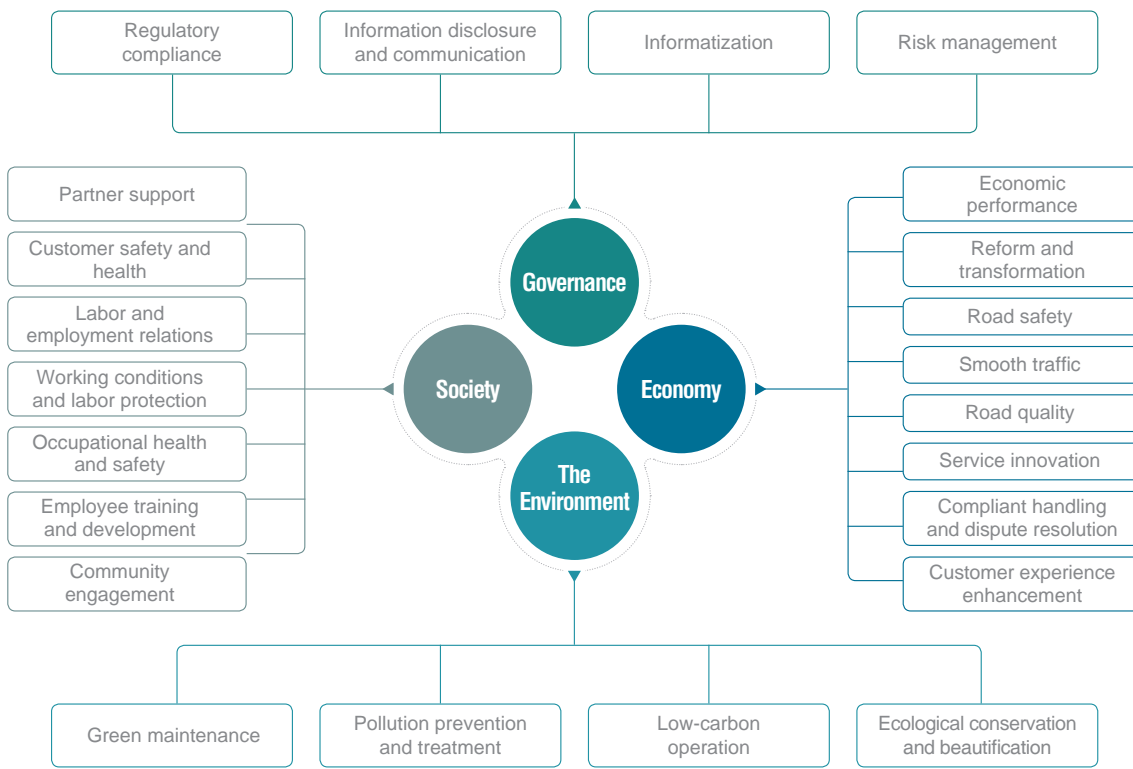
The Company comprehensively improves its social responsibility management system which clarifies the philosophy and guideline of social responsibility, the overall management objectives, organizational structure, index system, management of key topics and the mechanism of performance evaluation and improvement. In 2019, the Company incorporated environmental and social objectives into its development strategy, and entrusted the Strategy Committee under the Board of Directors to lead ESG (Environmental, Social, and Governance) management to pool necessary resources that could facilitate ESG work. The Office of Secretary to the Board was in charge of communication and cooperation with other departments and external stakeholders, including professional institutions, non-profit organizations, and industrial organizations, to put into place a social responsibility management mechanism for internal and external cooperation.



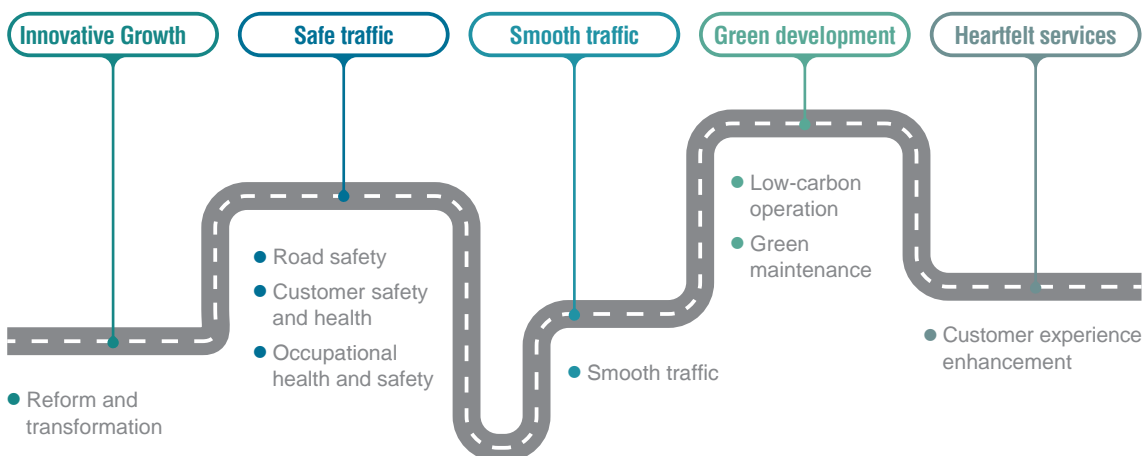
Social responsibility structure

## Identification of Material Topics

Based on the material topics in 2018, we analyzed and identified the material topics again in 2019 by taking into account the risks and opportunities of sustainable development faced by the Company as well as its important strategic direction and stakeholder demands. Finally, 23 material topics were selected with eight key topics identified around the key areas of social responsibility.



Material topics on social responsibility in 2019



Key strategic points of social responsibility

## Stakeholder Engagement

In order to ensure that the Company's social responsibility philosophy is better integrated into our business process and daily operation, we have developed good interaction with stakeholders through multiple communication mechanisms so that we can understand the expectations and demands of stakeholders, actively absorb constructive opinions on the Company's development, and constantly improve our management level.

Stakeholders	Major topics	Expectations and demands	Engagement methods
Customers (passengers and motorists)	<ul style="list-style-type: none"> <li>Smooth traffic</li> <li>Quality services</li> <li>Safe traffic</li> <li>Easy access to comprehensive traffic information</li> </ul>	<ul style="list-style-type: none"> <li>Smooth, flat and comfortable roads</li> <li>Diversified service items at service areas</li> <li>Good service and fast passage at toll stations</li> <li>Timely and efficient road rescue and hindrance clearance</li> <li>Timely and complete information disclosure and easy access to information</li> </ul>	<ul style="list-style-type: none"> <li>Feedback on services rendered</li> <li>Field research at the service areas</li> <li>Online surveys</li> <li>Telephone interviews</li> </ul>
Local governments and regulatory authorities	<ul style="list-style-type: none"> <li>Economic performance</li> <li>Regulatory compliance</li> <li>Smart transportation</li> <li>Serving socioeconomic development</li> </ul>	<ul style="list-style-type: none"> <li>Value maintenance and appreciation of state-owned assets</li> <li>Serving the government's working plans and socioeconomic development</li> <li>Promoting the development of smart city</li> <li>Compliance and integrity</li> <li>Industry optimization and upgrading</li> <li>Development of smart transportation</li> <li>Industry experience sharing</li> </ul>	<ul style="list-style-type: none"> <li>Reporting and communication</li> <li>Patrolling</li> <li>Instructions</li> <li>Work meetings</li> <li>Institutional documents</li> <li>Annual reports</li> </ul>
Jiangsu Communications Holding Co., Ltd	<ul style="list-style-type: none"> <li>Regulatory compliance</li> <li>Risk management</li> <li>Economic performance</li> <li>Reform and transformation</li> <li>Smart transportation</li> </ul>	<ul style="list-style-type: none"> <li>Value maintenance and appreciation of state-owned assets</li> <li>Compliance and integrity</li> <li>Economic performance</li> <li>Sharing experience within Jiangsu Expressway</li> </ul>	<ul style="list-style-type: none"> <li>Reporting and communication</li> <li>Work meetings</li> <li>Annual reports</li> <li>Instructions</li> </ul>
Securities regulatory authorities	<ul style="list-style-type: none"> <li>Transparent operation</li> <li>Information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with regulations of the stock exchanges</li> <li>Timely and high-quality information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>Institutional documents</li> <li>Reporting and communication</li> <li>Notices and announcements</li> <li>Annual reports</li> </ul>
Investors and creditors	<ul style="list-style-type: none"> <li>Return on investment</li> <li>Value maintenance and appreciation</li> <li>Risk prevention</li> </ul>	<ul style="list-style-type: none"> <li>Stable returns and dividends</li> <li>Exploring new profit growth points</li> <li>Reducing investment risks</li> </ul>	<ul style="list-style-type: none"> <li>Board meetings</li> <li>Annual reports</li> <li>Public announcements and road shows</li> <li>Shareholders' meetings</li> <li>Investor surveys</li> </ul>
Partners (suppliers, contractors, road administrations, traffic police, etc.)	<ul style="list-style-type: none"> <li>Win-win and mutual benefit</li> <li>Fulfillment of commitments</li> </ul>	<ul style="list-style-type: none"> <li>Maintaining stable cooperative relations</li> <li>Providing with information on road conditions</li> </ul>	<ul style="list-style-type: none"> <li>Contracts and agreements</li> <li>Daily communications</li> </ul>
Industry counterparts	<ul style="list-style-type: none"> <li>Industry development</li> </ul>	<ul style="list-style-type: none"> <li>Experience sharing</li> <li>Promoting industry development</li> </ul>	<ul style="list-style-type: none"> <li>Industry conferences</li> <li>Visits and exchanges</li> </ul>
Employees	<ul style="list-style-type: none"> <li>Equal employment</li> <li>Career development</li> <li>Occupational health and safety</li> </ul>	<ul style="list-style-type: none"> <li>All-round welfare guarantee</li> <li>Smooth career development paths</li> <li>Diverse opportunities for development</li> <li>Safer and cozier working environment</li> <li>Caring for occupational mental health</li> </ul>	<ul style="list-style-type: none"> <li>Labor contracts</li> <li>Collective contracts</li> <li>Employee Representative Congress</li> <li>Employee satisfaction surveys</li> </ul>
Local communities	<ul style="list-style-type: none"> <li>Environmental impact management</li> <li>Low-carbon operation</li> </ul>	<ul style="list-style-type: none"> <li>Lowering the noise on roads</li> <li>Protecting local ecological environment</li> </ul>	<ul style="list-style-type: none"> <li>Visits</li> </ul>
The public / media	<ul style="list-style-type: none"> <li>Open and transparent information</li> </ul>	<ul style="list-style-type: none"> <li>Timely disclosure of significant information</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> </ul>







An aerial photograph of a highway interchange with multiple lanes and overpasses. A large red circle is superimposed on the right side of the image, containing the text 'Innovative Growth'. Below the text is a decorative horizontal line of small red chevrons. In the foreground, a sign for '久盛地板' (Jiusheng Flooring) is visible, with the English text 'TRUSEEN FLOORING' and '王神久盛 龙图村主' below it. The background shows a city skyline under a clear sky.

# Innovative Growth

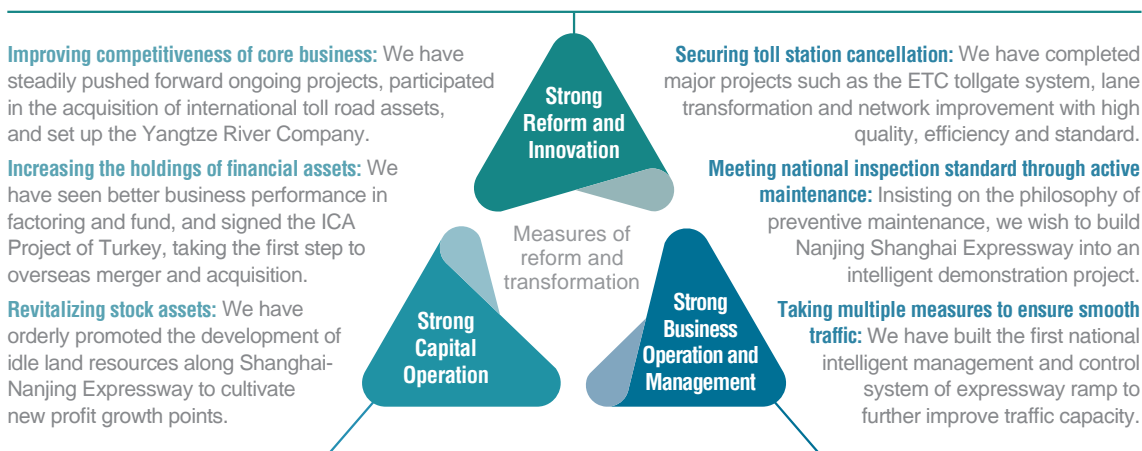


Innovation is the primary force driving our high-quality development. We vigorously push ahead with innovation-driven development to promote transformation and upgrading. While deepening our core business of toll road and bridge operation, we continue to upgrade the industrial structure, and lift capital operation capability, maintaining a sound momentum. Facing the trend of “Internet plus”, we explore the construction of intelligent expressways to contribute to China's expressway management with technologies.

## Reform and Transformation

The Company continues to deepen reform, accelerate structural adjustment and transformation development. With a focus of developing the core business, we fully leverage our capital advantages, and give full play to the efficient allocation of capital, assets and resources. Focusing on the “One Core and Two Supplements” strategy, we improve our quality and performance, and implement the innovation-driven development strategy to further boost development vitality and core competitiveness.

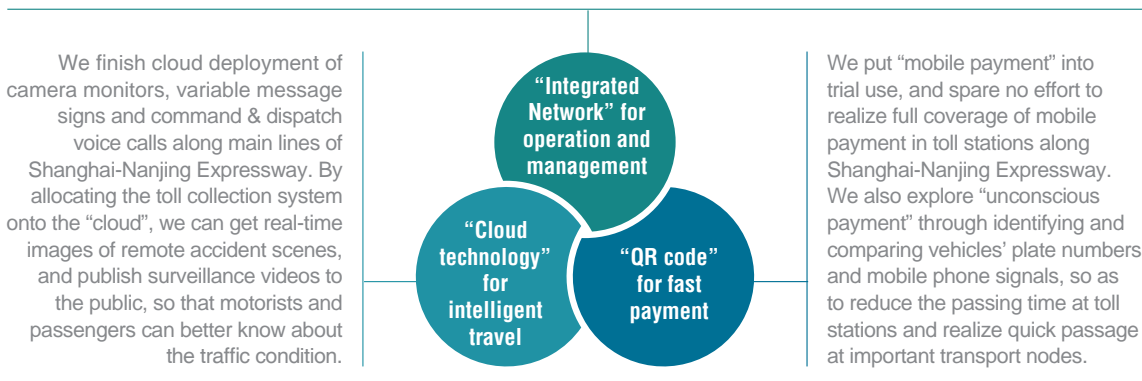
We have orderly promoted the reform and transformation of service areas to expand their influence. We have also adjusted oil inventory according to price fluctuations, and improved the bidding methods for oil procurement to effectively increase oil profits.



## Intelligent Expressways

As a state-owned enterprise, we regard meeting the public's travel demand as the most vital social responsibility. In response to the trend of intelligent development in the “Internet plus” era, we have pioneered the “integrated network” for operation and management, “cloud technology” for intelligent travel, and “QR code” for fast payment. Furthermore, we take prompt steps to build infrastructure, integrate resources, share data and establish a three-dimensional information-sharing network to bring safer and more smooth travel experience to the public.

Through adopting intelligent information technologies, we establish a “Tripartite Dispatch System for One Road”, and promote “cloud management” to realize the integration of toll collection, operation guarantee and joint command, and ensure the high efficiency and unity of road network dispatch and command.



Innovative practices in building intelligent expressways

## Intelligent Management

In a bid to further improve the efficiency of expressway management and control, the Company, in light of its own situation, actively benchmarks with international standards, and innovates in its management philosophy. We develop the experimental traffic management system of emergency lanes, continuous parking bay, and ramp management, with an aim to create a safe and smooth traveling environment through intelligent systems.

### CASE ▶

#### The first national intelligent management and control system of expressway ramp

The Wuxi section of Shanghai-Nanjing Expressway handles an average daily traffic flow of 150,000 vehicles, and a peak flow of 210,000 vehicles, far exceeding the designed capacity for eight lanes. During major holidays, traffic flowing into the Expressway frequently causes accidents. Relying on the "Tripartite Dispatch System for One Road", we explore ways to maintain traffic order with intelligent technologies. In 2019, we took the lead in employing the intelligent ramp management and control system, including traffic light, millimeter-wave radar, calculation and control equipment, LED prompt screen, and electronic police capture system, coupled with roadside signs and Amap voice prompt. The millimeter-wave radar can sense the traffic flow on roads with great traffic burden, and then the system adjusts traffic lights while considering the number of vehicles owing into the expressway to guarantee traffic order. This method effectively reduces congestion and security risks caused by disordered traffic, and achieves a joint-action mechanism between expressway management and local authority, as well as management across expressways to ensure traffic efficiency. During the 2019 International Labor Day travel peak, the system was put into operation for 4.5 hours in total, controlling nearly 5,500 vehicles entering the ramp. Due to the outstanding performance of the system, traffic order was guaranteed, risk of accident eliminated, and the burden of roads with super high traffic flow eased.

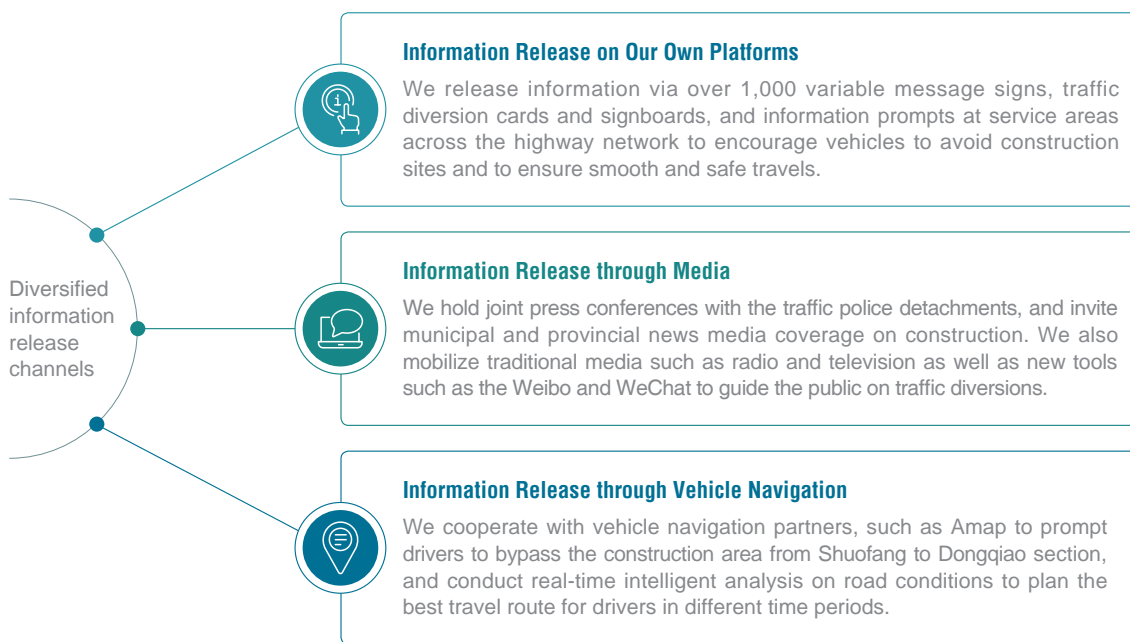


The first national intelligent optical ramp control system in operation at Shanghai- Nanjing Expressway during the International Labor Day



## Information Release

With an aim to maximize the convenience of public travel, the Company releases traffic information, traffic control information and travel tips to the public through multi-channels, and in multiple forms in a timely and accurate manner to guide reasonable travels.



### CASE

#### The "Pilot Project of Intelligent Travel Information Service Based on Multi-Source Transportation Big Data" reaches advanced international level and propels industrial technology development.

Committed to providing high-quality travel information services for the public, the Company aims to set up an intelligent travel information service platform powered by multi-source transport big data that can integrate traffic data, interconnect terminals of variable message signboard (VMS), and release traffic situation information, and time required of travel. Therefore, it joined hands with transport big data companies to carry out the "Pilot Project of Intelligent Travel Information Service Based on Multi-Source Transportation Big Data". Through big data analysis, this project aims at interconnectivity among VMS, the F screen at the entrance and exit of toll stations and interchange hubs, and information ports at service stations. In 2019, after expert review, it was unanimously agreed that the result of this project has reached the international advanced level.

While continuously promoting IT application, the Company pays much attention to information security. In compliance with relevant national rules, the Company establishes and improves mechanisms to guarantee network information security. Adhering to the principle of "risk reduction, key protection, strong inspection and rectification", we enhance our supervision, improve risk detection and early warning mechanisms, emergency response ability, and awareness of private data protection, and allocate more fundings on the construction of network security facilities and equipment. In 2019, the Company revised over ten information related policies, such as the Management Measures for Information Work, Management Measures for the Safe Operation of Information System, Management Measures for Operation and Maintenance of Information System, and the Technical Index for Operation and Maintenance Management Service. Supported by these policies, we also tightened the authority of data access, and monitored the server of the charging system in real time, the dynamic environment of data storage center, and the security of data transmission network. Through several rounds of rectification, we constantly strengthened our risk control over information security, compliance operation, and information security of motorists and passengers.



## Intelligent Protection

In addition to maintaining smooth operation, the Company also introduces intelligent technologies into maintenance and hindrance clearance to ensure the safety of operating personnel. In 2019, the Company expanded the use of technological equipment, such as "smart traffic cone, individual soldier system", as well as safety facilities and equipment such as "anti-collision vehicle, alarm device, flash lamp, directional horn" to ensure safe operations and emergency rescue day and night, and improve the ability of active protection.

### CASE ▶

#### The "Active Intelligent Early Warning Device" ensures operation safety

In 2019, our independently developed "Active Intelligent Early Warning Device" was granted national patent. The built-in 24GHz millimeter wave radar monitors the rear operation area in real time. Once a vehicle is found to break into the area, the intelligent bracelet wore by the operating personnel will give out a vibrating alarm to spare over six-second golden escape time. The successful research and development of the device fills the gap of active early warning device in the market. Compared with traditional passive early warning methods such as manual observation, the device enjoys the advantages of stability (not affected by weather, light and climate changes), simple installation, and high efficiency. It significantly reduces the risk of field operation and ensures the safety of operators.



The hindrance clearance personnel use the Active Intelligent Early Warning Device on the road.









# Safe Traffic



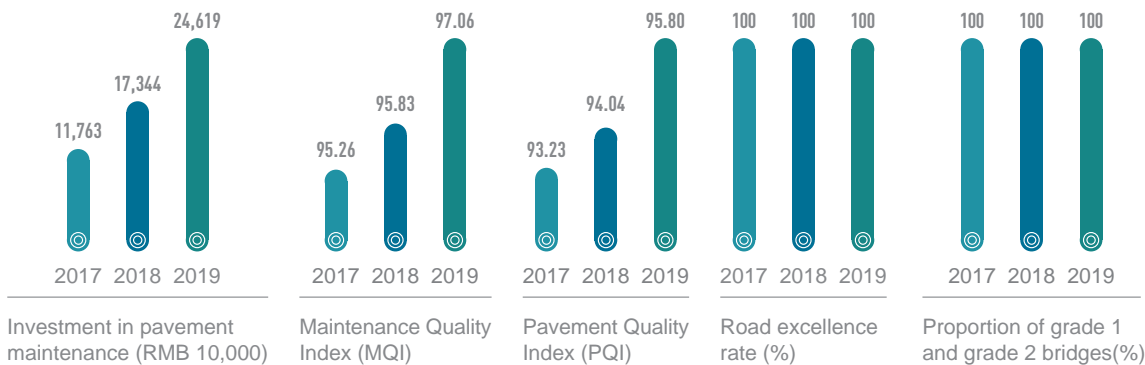
Work safety in the transportation sector is the foundation of sound and sustainable development of this industry. Recognizing “people orientation and safe development” as the core task, the Company continuously formulates standard procedures for safety, enhances the ability for safety management and risk prevention to provide a safe travel and working environment for motorists, passengers, and employees.

## Road Quality

Aiming to build highways with outstanding quality, the Company continues to strengthen scientific maintenance. While taking into consideration the conditions of road sections, we actively adopt scientific methods to maintain good road condition. The phased goal of "three-year to enhance pavement condition" was successfully achieved, which promotes road quality and supports our endeavor to guarantee the traffic that makes the public's satisfaction.

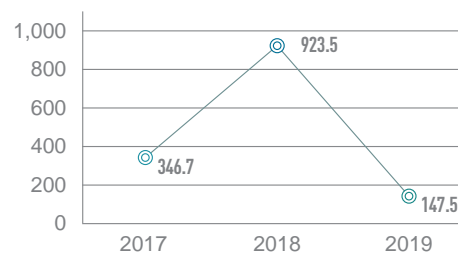
### Improving Maintenance System

In line with the philosophy of full life-cycle maintenance, the Company draws up related strategies, and continuously improves its science-based maintenance system. In 2019, the Company took the initiative to formulate *Guidelines on Safe Maintenance at Night*, which is the pioneer for road maintenance within the system of the Jiangsu Communications Holding Co., Ltd. and the first set of standards for protecting the safety of night operations in the industry. Meanwhile, the Company stayed humble to follow the guidance of Jiangsu Communications Holding Co., Ltd. and the Maintenance Technology Center to learn from recent technological innovations and adopted techniques and materials such as terrestrial heat regeneration, foamed warm-mix asphalt mixture technology, and water-draining noise-reduction pavement in special pavement maintenance projects, thus ensuring road quality all the time.



### Innovating in Maintenance Technologies

The Company innovates in and studies maintenance technologies, and has yielded fruitful results. In 2019, the Company continued with various research projects, such as *Pavement Maintenance Strategy and Planning Research on Jiangsu Section of Shanghai-Nanjing Expressway*, *Evaluation Research on the Application of Asphalt Pavement Crack Repair Technology in Expressways with Huge Traffic Flow*, *Research and Application of Key Technologies in Truss Bridge Maintenance*, *Research and Application of Key Maintenance and Renovating Technologies for Bridge Expansion Joint Based on High-Performance ECC Materials*, and *Study on the Inspection and Evaluation of the Technical Condition of the Small and Medium Span Steel Box Girder Bridge and the Inspection Method of the Internal Condition of the Closed Box Chamber*. Based on the research results, the Company actively launched supporting engineering projects, comprehensively improving the its technological capacity in road maintenance.



Funds for scientific research and innovation (RMB 10,000)

Note: In 2019, no new scientific research project was launched, thus the funding for scientific research and innovation dropped significantly compared with the number in 2018.



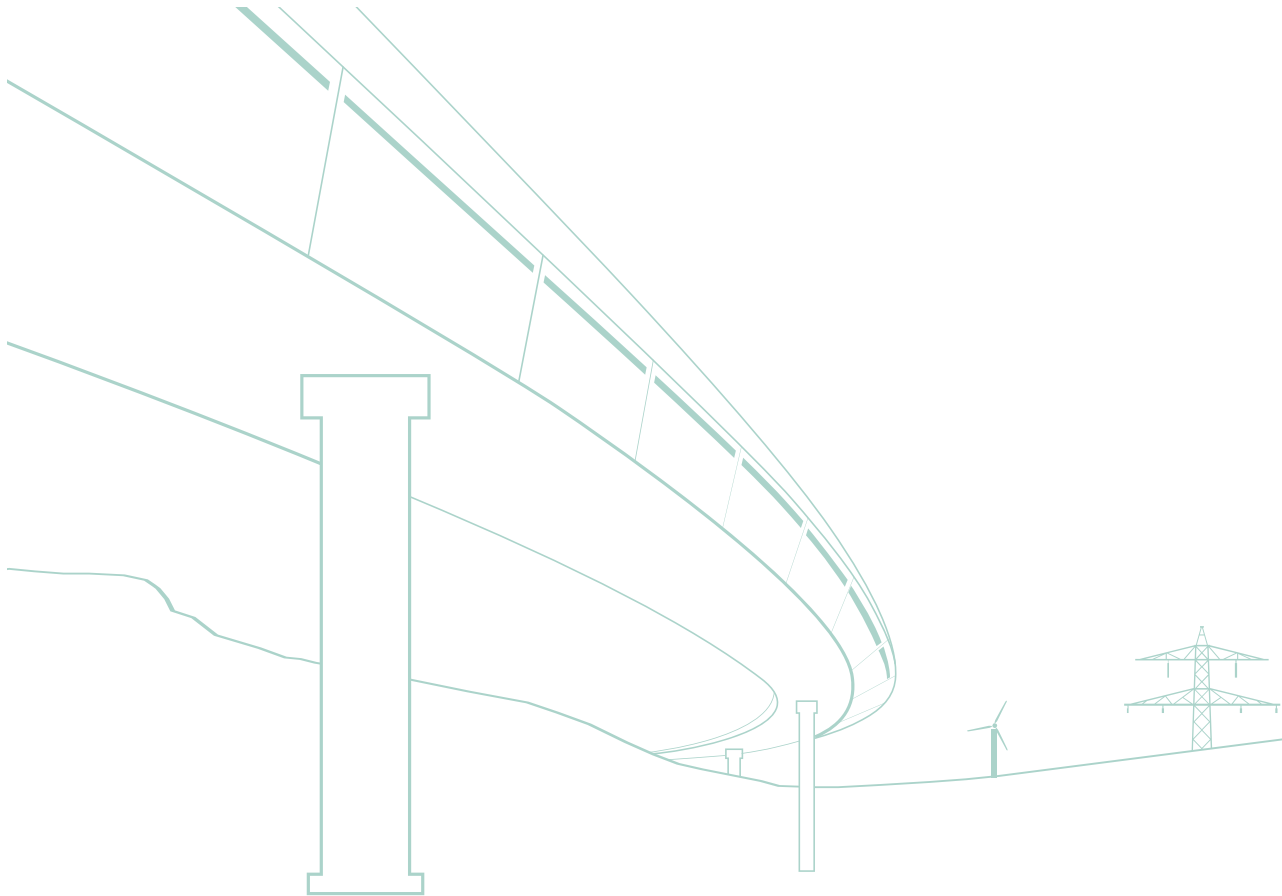
In August 2019, Jiangsu Communications Holding Co., Ltd. made an appraisal of our “Pavement Maintenance Strategy and Planning Research on Jiangsu Section of Shanghai-Nanjing Expressway”, spoke highly of the research result and its application effect in special occasions, and agreed that the research result had reached the international leading level.

CASE ▶

**The pavement overlay project of Wuxi section recognized as maintenance model.**

The Company insists on Jiangsu-featured high-quality and preventive maintenance. In 2019, we resurfaced the pavement from Shuofang to Dongqiao section, leaving one lane for traffic. The maintenance period was short, the social impact small and the construction quality and safety well guaranteed. The technical plan of “centralized maintenance” was tested again in the “busiest road section in the country” to be effective.

In September 2019, the first demonstration project of intelligent expansion of super flow section in China—pavement resurfacing from Shuofang to Dongqiao section was successfully completed with traffic in full order and round-the-clock active maintenance in place. The project covering 6.5 km involved two stages and lasted six work days. After high-quality maintenance, this section can effectively overcome difficulties such as rainy weather, traffic organization, and large traffic flow. It is a shining example of putting our signature maintenance method into practice.



## Road Safety

The Company strictly abides by the *Highway Law*, *Product Quality Law*, and *Regulation on the Administration of Toll Roads*. We continue to improve road safety management and risk prevention measures, strengthen the emergency response mechanism, and improve our safety management and control capabilities. In addition, information technologies have been applied in daily safety inspections to timely identify, report and cope with safety hazards and hidden dangers to provide safer travel experience for the public.

### Increasing Safety Facilities

With a firm belief in the development philosophy of "safety is life", the Company vigorously carries out the special action of "key season of eliminating hazards" and "project of eliminating blockage and hazards" to comprehensively investigate and eliminate all kinds of potential risks on the road. The Company strictly abides by management regulations such as *Special Emergency Plan for Accidents Occurred during the Transport of Hazardous Chemicals*, *NHG4.04 Standard Operations for Hindrance Clearance, Rescue of Vehicles Carrying Hazardous Chemicals*, and *NH92.04F01 Rules on Disposal of Hazardous Chemicals during Emergency*. We also tighten management of vehicles loaded with hazardous chemicals to reduce potential risks of leakage. For roads with high accident rate, we replace old signs and pavement markings with new ones that are more obvious to guard traffic safety.



Five measures for "key season of eliminating hazards"

#### CASE

#### The "black technology" in Wuxi section of Shanghai-Nanjing Expressway prevents fatigue driving

About 48% of traffic accidents in expressway interchanges are due to fatigue driving. The anti-fatigue driving warning system jointly developed by the Company, Traffic Management Research Institute of the Ministry of Public Security and Wuxi Municipal Public Security Bureau Traffic Police Detachment was officially put into use in Wuxi section. The warning system, which relies on "acousto-optic" modulation, combines visual and acoustic stimulus including moving green laser beams, VMS prompts, laser projected texts, red flash lamps, and harsh warning alarm to bring down traffic accident rates. In 2019, since the warning system was put into use, traffic accidents in the section have decreased by about 10% month on month, effectively enhancing the safety and satisfaction of the public.



The anti-fatigue driving warning system with laser beams and information sign

The Company attaches great importance to improving safe management in service areas. It not only deploys professional security equipment and personnel, but also publicizes safe driving tips through banners, information boards, and electronic screens at service areas and toll stations to improve public awareness of safe driving. In addition, through tightening control on food safety and commodity quality in service areas, and organizing food safety trainings for employees, the Company builds a safe environment in all respects.

CASE ▶

### Completing the construction of police station in service areas with high quality and efficiency

In order to further improve the prevention and control of security risks in service areas, and effectively increase the public's travel safety and happiness, the Company actively responds to the requirements of the superior department on building service area police stations. Considering the situation of each area, police stations of 60 to 150 square meters have been built at service areas along the Expressway. The completion and operation of the police stations marked the comprehensive upgrade of the security system, which will effectively promote standardized and normalized traffic and public security management to make public travel safer, more convenient and more comfortable.



Yangchenghu Service Area Police Station

## Strengthening Emergency Response

The Company regards "safeguarding smooth traffic and safe travel" as its engraved mission. To guarantee the safety of motorists and passengers, we strengthen our command and dispatch force to shorten emergency response time, and adjust the time period of banning vehicles carrying hazardous chemicals from expressway. With the help of service area police stations, we monitor vehicles carrying hazardous chemicals and advise them to drive off expressways in a bid to comprehensively improve our emergency response and rescue capacity.

Through the "Tripartite Dispatch System for One Road", the Company coordinates with traffic police and the highway administration to improve emergency handling ability. The Company also works closely with rescue and medical personnel at hindrance clearance sites to reduce risks caused by road accidents and avoid secondary accidents.

CASE ▶

### The "Tripartite System for One Road" handles a rear-end crash involving vehicle carrying hazardous chemicals

In December 2019, at the K230 section on Shanghai-Nanjing Expressway, two freight trucks were involved in a rear-end accident. Since one truck carried hydrogen, the collision soon escalated into a fire accident. After receiving the report, Danyang East Maintenance and Hindrance Clearance Center immediately initiated the Emergency Response Plan for Hazardous Chemical Accidents. After four hours of concerted and strenuous efforts of the traffic police, fire control, work safety administration, and command and dispatching center, we successfully handled the accident. Our outstanding emergency management mechanism and response level helped ensure the safety of traffic, and of people's lives and property.

## Health and Safety of Employees

The Company highly values the occupational health of employees and has strengthened safety management. In strict accordance with national and local safety laws and regulations, including *Law of the People's Republic of China on Work Safety*, *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*, *Regulations of Jiangsu Province on Labour Protection*, *Regulation for Work-Related Injury Insurance*, *Administrative Measures for Work Safety Training*, and *Administrative Measures for Labour Safety and Health*, we have formulated annual safety training plan, implemented three-level training system for new employees, and regularly carried out safety month competition activities. In addition, we have established OHSAS 18001 Occupational Health and Safety Management System and allocated safety equipment for employees to reduce safety risks during road operation.



### Strengthening Education on Work Safety

- Raise all employees' awareness of "safety is life".
- Carry out case analysis of traffic accidents and education on safe driving.
- Organize trainings on first aid and health tips.

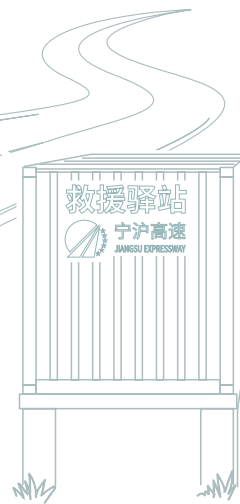
### Eliminating Safety Hazards Timely

- Urge employees to follow the rules of "safety first, standard operations, and good risk prevention" to ensure work safety.
- Increase safety protection equipment.
- Re-investigate sources of hazard that threatens personal safety.

### Strictly Carrying Out Standard and Safe Operations

- Set up archives of work safety.
- Push forward IT based approval of construction projects, tighten safety management on construction sites, and strictly follow the reporting and recording rules.
- Carry out spot checks on frontline workers regularly.
- Lay down terms in contracts that maintenance units should increase input and be equipped with anti-collision vehicles to build a safe operation environment.
- Push for centralized maintenance to reduce road operations.

Measures to guarantee work safety





CASE ▶

### Our first "safety education room for maintenance and hindrance clearance " in use

In order to enrich the culture and education forms of work safety, our first "safety education room for maintenance and hindrance clearance" was officially put into use in Changzhou Maintenance and Hindrance Clearance Center. Through "visible, audible and touchable" teaching modes, our employees are urged to pay attention to work safety. The room, winning wide acclaim from employees, brings safety management to a new level.

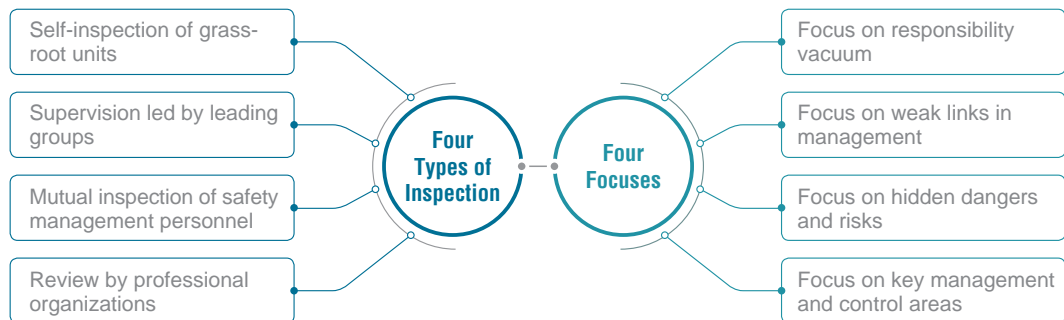


Employees at a safety training lecture in the room

CASE ▶

### Changzhou Office's "four types of inspection with four focuses" campaign facilitates the special action of "key season for eliminating hazards"

Our Changzhou Office earnestly follows the guidelines of the *Notice on Carrying out the Special Action of "Key Season for Eliminating Hazards"*. Through the campaign of "four types of inspection with four focuses", the Office implements safety inspection and eliminates hidden danger to secure the victory of the fight against hazards.



Four types of inspection with four focuses



# 夜间入口 NIGHT ENTRANCE

24h  
24小时开放







# Smooth Traffic



Smooth and orderly transportation underpin the coordinated development of economy and society, as well as good travel experience of the public. The Company continues to enhance road capacity, and the efficiency of expressway network operation to contribute to regional socioeconomic development, and propel China's transportation construction.



In 2019, the one-time passage rate of ETC lanes governed by the Company was

**97%**

and ETC lane coverage stood at **95%**.

## Traffic Order Management

Traffic order management is a powerful guarantee for smooth roads. The Company continuously improves the "Tripartite Dispatch System for One Road" cooperation mechanism to optimize traffic efficiency, handle traffic congestion, and lift traffic capacity. In 2019, the Company took the lead in building additional parking bays in the intelligent lane control section between Dongqiao and Shuofang to maximize the traffic handling capacity of emergency lanes. By redistributing lane width, four lanes were changed into five, increasing traffic capacity by over 9% while optimizing allocation of land and lane resources. The Company also attaches great importance to traffic order management at service areas, and widens the ramps at Meicun Village and Meicun Service Area in an orderly manner to ensure smooth traffic.

## Cancellation of Provincial Highway Toll Stations

With the increasing need for transportation and travel, and thanks to the development of electronic toll collection technology, provincial highway toll stations will be canceled to alleviate traffic burden, and bring more opportunities to related industries. In 2019, according to the requirements of the *Implementation Plan of Deepening the Toll Road System Reform and Canceling Toll Stations at Provincial Boundary* and *Implementation Plan of Deepening the Toll Road System Reform and Canceling Toll Stations at Provincial Boundary in Jiangsu Province*, from January 1, 2020, electronic toll collection system (hereinafter referred to as "ETC") will be used at highways connected to the national network. The Company fully implements the "No.1 Project" of Jiangsu Communications Holding Co., Ltd., and is tasked to scrap all toll stations at provincial boundaries to achieve interconnectivity of national transport network and guarantee the safety and order of Shanghai - Nanjing Expressway.

### Strengthening Organization

We establish a leading group for stations cancellation with main managers as leaders, others as deputy leaders, and heads of relevant management offices and departments of the Company as members to strengthen organization.

### Improving Publicity

The trainings of nationwide highway toll collection have been done well by levels, and include topics such as reform on freight car toll rate, advance booking system of vehicles qualified for green channels, and how ETC tollgate assigns the correct toll to ensure related policies are carried out in accordance with national standards.

### Enhancing Technological Support

We check and ensure the normal function of highway lane and tollgate systems, and open the 24-hour facility and equipment failure reporting channel.

### Enhancing Operational Services

We optimize the structure of toll collectors, data reviewers, and emergency operation and maintenance staff; upgrade equipment configuration; ensure one main and one standby terminal for inspection of vehicles qualified for green channels; and timely replace outdated road signs.

### Establishing Emergency Plans

We establish 24-hour emergency liaison mechanism, and formulate 20 emergency plans and disposal processes.

After cancelling toll stations at provincial boundaries, the collection mode, operation mechanism and business procedure will be changed. The Company takes various measures to achieve interconnected operation of national expressways.



CASE ▶

### Orderly advance "Cancellation of Stations", Huaqiao Toll Station steps into the "ETC era"

Huaqiao Toll Station, as an important transportation hub connecting Suzhou and Shanghai, is the provincial toll station with the largest traffic flow along Shanghai-Nanjing Expressway. At present, the two-way traffic flow totals over 120,000 vehicles throughout the day. With our continuous efforts in road toll reform, the task of ensuring traffic order has received attention from all parties. In order to ensure the success of the reform, Huaqiao Toll Station actively cooperated with relevant units to prepare materials and test equipment performance, and carried out drills to guarantee order and efficiency. On January 1, 2020, Huaqiao Toll Station held a ceremony celebrating the victory of securing the "last 100 meters" of the reform. Under the joint witness of partners to the "Tripartite Dispatch System for One Road", vehicles drove into the station in an orderly manner, taking it to the "ETC era".



#### Feedback from stakeholders

"The cancellation of provincial toll stations can reduce the time of travel, which makes cross-provincial transport more convenient."

—— Logistics truck driver

## Explore the Intelligent Capacity Expansion of Super Flow Section

The Company actively carries out the major provincial scientific research project— *Research on the Key Technology and Project Demonstration of Guaranteeing Traffic for the Super Large Flow Section of Shanghai-Nanjing Expressway* to expand traffic capacity through intelligent technologies without large-scale land acquisition, and to finally achieve the goal of a 20% increase in road traffic capacity.

### © The Project of Lane Control of Large Flow Section

By using the emergency lane opening technology and variable speed limit control method, without changing the existing subgrade cross section, the "dynamic emergency lane" was constructed with intelligent and refined traffic control technology to achieve accurate guidance and real-time control of vehicles driving in each lane, and to improve highway capacity. At the same time, we systemically study the terms regarding "administrative regulations, control scope, department responsibilities, implementation process, prevention and remedy" involved in the lane control system of large flow sections, and formulate the *Special Management Measures for Emergency Lane of Large Flow Sections of Shanghai Nanjing Expressway (Trial)* that lays down specific rules on "opening and closing conditions of emergency lanes, information release on VMS, reporting method of statistical information, and conditions of initiating emergency plan" to improve highway management.



Lane control gantry

### ◎ Continuous Bay Group

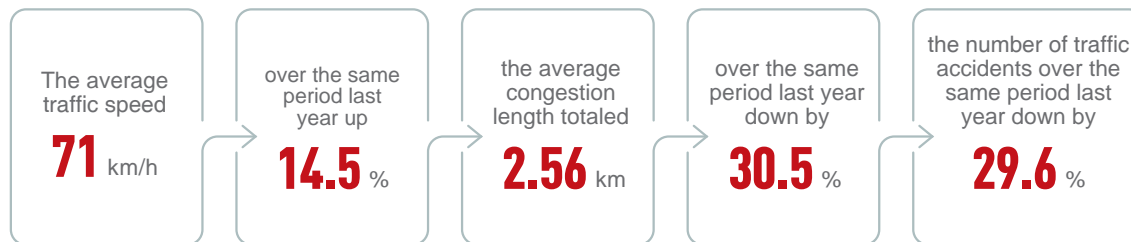
In the pilot section from Shuofang to Dongqiao, a continuous bay group was built. Three additional bay type emergency rescue stations were also set up in both directions within four kilometers which was boasted as the highest density nationwide to push for "zero distance of emergency response". As a support to the project, *The Measures for the Use and Management of the Parking Bay Belt in Wuxi Section* was issued to ensure the standardized use and efficient operation of the belt.



Continuous bay group

In addition, the Company actively adopts new technologies and techniques to optimize signs and markings along the Expressway, and improve the performance of safety facilities to build a strong system.

During the 2019 National Day holiday, the heavy flow section from Shuofang to Dongqiao was



## Emergency Mechanism for Guaranteeing Smooth Traffic

Considering the complex structure, large traffic volume and changeable weather conditions of Jiangsu highway network, extreme weather and large traffic during holidays often bring huge pressure to transportation. The Company constantly improves response mechanisms to uplift the ability of rapid response and comprehensive disposal, and to ensure the smooth operation of highways.

### Ensuring Smooth Traffic during Extreme Weather Conditions

With the mission of improving emergency response ability in mind, we have formulated the *Special Emergency Plan for Sweeping and Removing Snow and Ice in Adverse Weather*, specifying response measures to deal with extreme weather conditions, and carried out drills with "Tripartite Dispatch System for One Road" partners to test the feasibility of the plan. In 2019, road congestion during snowy weather was zero, thus the public's safety was well ensured.

#### CASE ▶

#### Expressway meteorological service guarantees smooth traffic during extreme weather

The Company cooperates with meteorological departments to jointly explore the traffic meteorological service technology and application scenarios. As early as 1998, the Company and Jiangsu Institute of Meteorological Sciences carried out the Research on Fog Disaster in Autumn and Winter of Shanghai Nanjing Expressway (Jiangsu Section), and the Company Fog Remote Sensing Monitoring Business System. In 2006, we introduced meteorological service, and jointly developed the Shanghai-Nanjing Expressway weather support system, which was awarded as the demonstration project of domestic traffic meteorology.

As of 2019, the Company has established 26 sets of meteorological stations along the Expressway, and connected 134 real-time video imaging to Jiangsu Provincial Meteorological Bureau, enriching the highway meteorological monitoring and prediction scenarios. We promoted its use in Jiangsu Communications Holding Co., Ltd. Through the Jiangsu Transportation Meteorological Station Real-time Data Query System, it can realize the real-time collection of 8 meteorological elements, namely, visibility, rainfall, wind direction, wind speed, temperature, relative humidity, road temperature, subgrade temperature. This allows us to effectively deal with extreme weather events such as blizzard and typhoon in terms of "grasping a head-start in emergency response, reducing the time of road closure, strengthening the awareness of prevention, and improving travel safety".

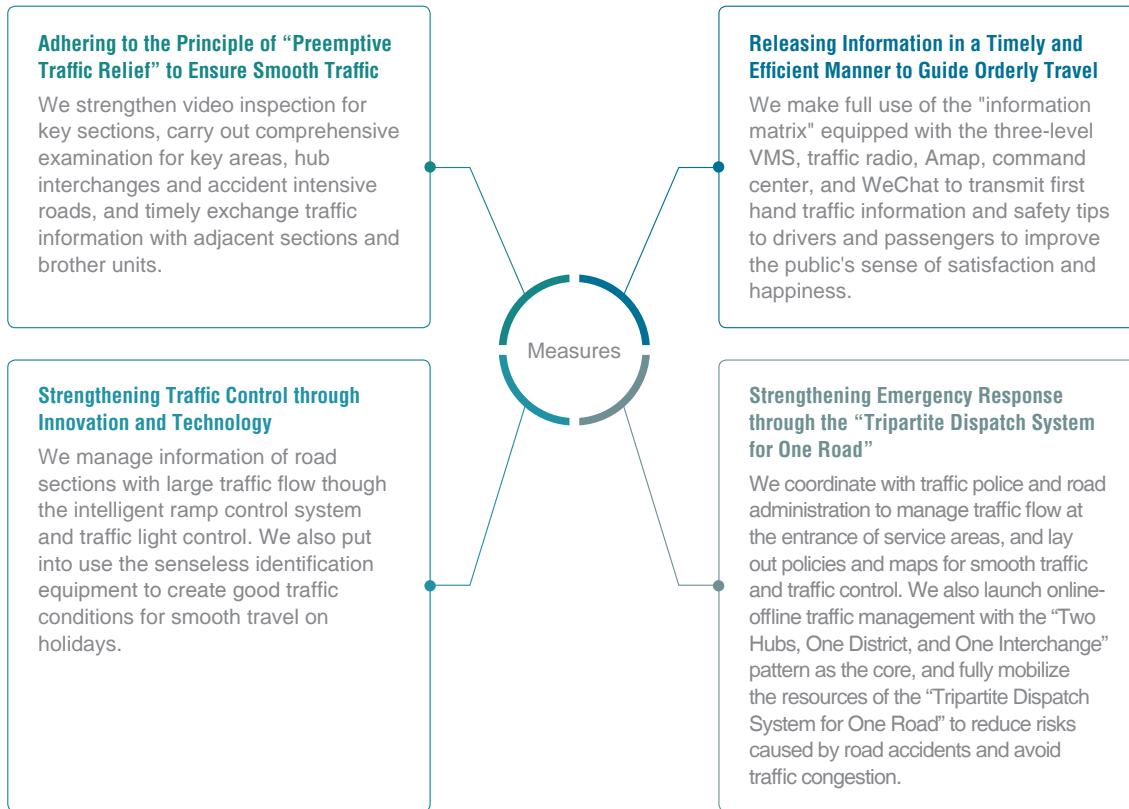


Traffic UAV for weather conditions



## Ensuring Smooth Traffic in Holidays and Vacations with Extreme High Traffic Flow

The Company has revised the *Detailed Rules for the Implementation of Large Traffic Flow Response*, carried out the project of "eliminating blockage and hazards" through refined management and advanced technologies to guarantee the safety and smoothness of highways with large traffic flow during festivals.



Measures to ensure smooth traffic in holidays and vacations with extreme high traffic flow



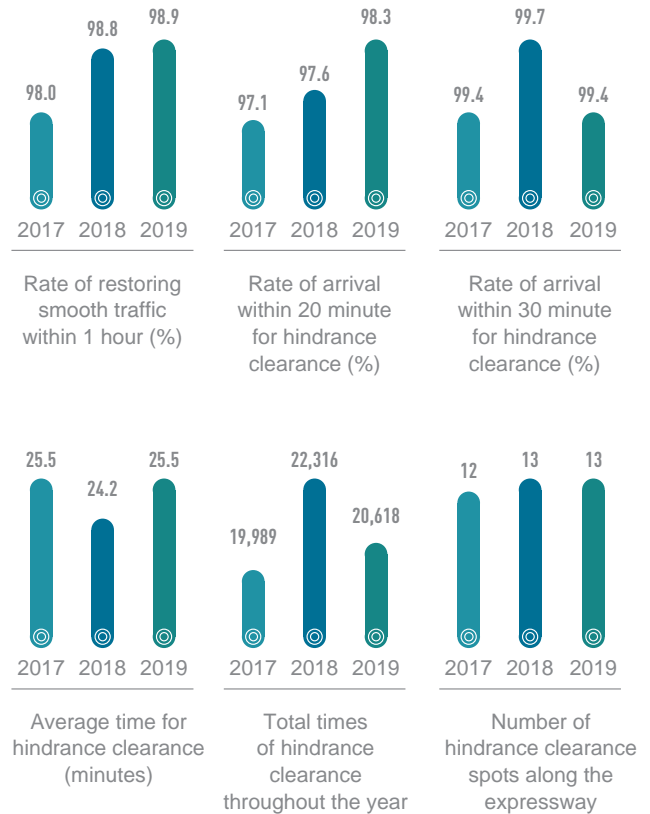
The "senseless sign" at Yangchenghu Service Area Signage Station provides technical support for handling National Day passenger flow.



## Hindrance Clearance and Rescue Efficiency

The Company focuses on improving the standardized management of road hindrance clearance. We have formulated management regulations including the *Management Rules for Implementation of Hindrance Clearance Operations*, the *Management Measures for Command and Dispatch*, the *Hindrance Clearance Fees and Bills Management Rules*, and the *Management Measures for Hindrance Clearance Operation*. We have also compiled operation manuals for different hindrance clearance positions to standardize the process and improve efficiency.

Jiangsu Expressway constantly optimizes the efficiency of hindrance clearance and rescue. The Company took the lead in introducing the new helicopter emergency rescue mode in Jiangsu Province, formulated *Regulations on Helicopter Emergency Rescue Operation*, and created the three-dimensional air-ground rescue mode, building the air rescue corridor of Shanghai-Nanjing Expressway. The Company organized the first domestic helicopter emergency rescue drill on highways with heavy traffic burden, opening up a "fast life channel" for the severely injured to further guarantee people's travel and safety of life and property. In 2019, satisfaction to our hindrance clearance work reached 100%.



Opening up a new mode of emergency rescue and stepping into a new era of air ground integration—the first national helicopter emergency rescue drill for main expressway lines was successfully launched in Shanghai-Nanjing Expressway.



"Ground + air" three-dimensional emergency rescues is launched to create an "air corridor" for saving lives.



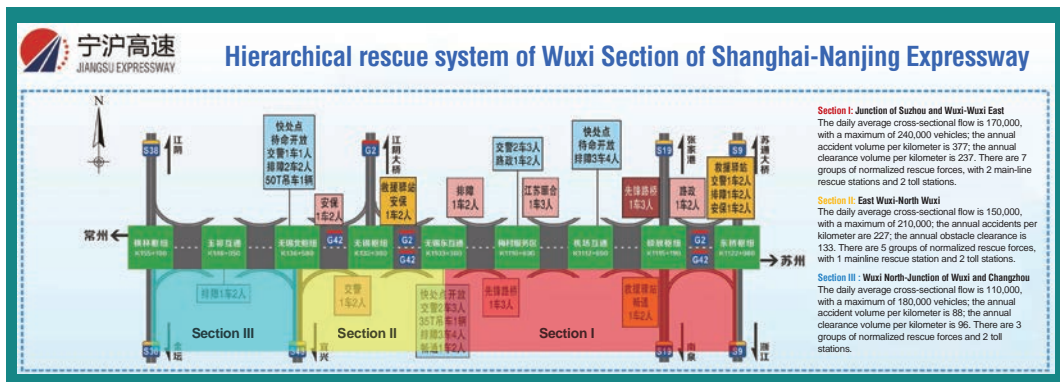


The application of multi-functional hindrance clearance vehicle effectively improves accident handling capacity.

#### CASE ▶

### Building a hierarchical rescue system to improve the ability of maintaining smooth traffic

In order to further improve the capacity of road rescue and traffic order control, Wuxi Management Office adheres to the concept of "maintaining smooth traffic with quality service", and has carried out the construction of a hierarchical rescue system on a pilot basis. According to traffic flow, accident rate, hindrance clearance volume and road bearing capacity of the sections under the jurisdiction of the rescue system, the original seven sub-sections of Wuxi Section were scientifically re-categorized into three levels. Corresponding rescue capacity of the three levels has also been established to improve the efficiency of the rescue system.



Hierarchical rescue system of Wuxi Section of Shanghai-Nanjing Expressway









# Green Development



In face of growing transportation demand and shrinking natural resources, there is a long way to go to achieve green and low-carbon highway operation. Sticking to the concept of "low-carbon operation and green maintenance", the Company strives to reduce the impact of expressway construction and operation on the ecological environment to build a beautiful China.

## Environment Management

The Company strictly abides by the *Environmental Protection Law*, *Environmental Protection Tax Law*, *Energy Conservation Law*, *Water and Soil Conservation Law*, *Soil Pollution Prevention Law*, *Energy Conservation Regulations of Jiangsu Province* and other national and local laws and regulations on environmental management, and follows up the revision of relevant laws and regulations to ensure environmental compliance. According to ISO 14001, the Company has established an environmental management system, formulated *Environmental Management and Protection Measures*, *Management Measures for Identification, Evaluation and Control of Environmental Factors*, *Management rules for Environmental Impact Control of Interested Parties*, and *Regulations on Solid Waste Treatment and Disposal* to better manage energy use and emissions, and improve environmental benefits. In 2019, the Company invested RMB 7.4668 million in environmental protection.

The impact of climate change on the transportation industry is mainly due to the increase of extreme weather events such as typhoon, fog, rain and snow, which brings about hidden dangers threatening the safety of both drivers and passengers, and may even lead to the closure of highways. The Company further improves the emergency response mechanism, formulates measures against winter cold, typhoon, and flood to continuously advance our emergency response capacity in coping with extreme weather events.

## Energy Conservation

We have formulated the *Administrative Regulations for Energy and Resources Control* to integrate the energy consumption statistics (including natural gas, liquefied petroleum gas, water, electricity, and gasoline) of all units into the performance appraisal. Based on the analysis of annual energy consumption of each unit, we have realized comprehensive lean management of energy consumption and reduced energy use through applying energy saving and environmental protection technologies. In 2019, LED lights were widely used, and rain water were recycled and collected to reduce energy waste. Besides, we firmly pushed ahead with vehicle reform which helped cut down seven vehicles in the service areas. We also canceled vehicle renting service at some areas, and entrusted a third party to provide shuttle buses for our employees to commute to work. Through the strong measures we took, our cost for fuel consumption decreased by 23.12%, and cost for vehicles was down by 24.06% compared to the same period of last year, achieving favorable results in cutting both energy and cost.

Energy type	Index	Unit	2017	2018	2019	Increase/decrease compared with last year
Direct energy consumption	Liquefied petroleum gas	kg	42,973	124,293	66,794	-46%
	Natural gas	m <sup>3</sup>	39,719	39,869	208,080	+422%
	Gasoline	L	344,410	288,296	108,489	-62%
	Diesel oil	L	435,615	--	443,092	+100%
Total direct energy consumption		ton of coal equivalent	1,027	573	773	+35%
Density of indirect energy consumption		ton of coal equivalent / RMB billion	1.086	0.575	0.768	+34%
Indirect energy consumption	Electricity consumption (Note 2)	kWh	18,833,937	18,009,389	30,493,693	+69%
Total indirect energy consumption		ton of coal equivalent	2,315	2,213	3,748	+69%
Density of indirect energy consumption		ton of coal equivalent / RMB billion	2.448	2.220	3.725	+68%
Water consumption (Note 3)		ton	535,614	442,791	1,056,175	+139%
Water consumption density		ton / RMB billion	566.428	444.257	1,049.771	+136%
Total amount of packaging materials used for finished products (Note 4)		ton	Not applicable	Not applicable	Not applicable	Not applicable

Energy consumption of Jiangsu Expressway

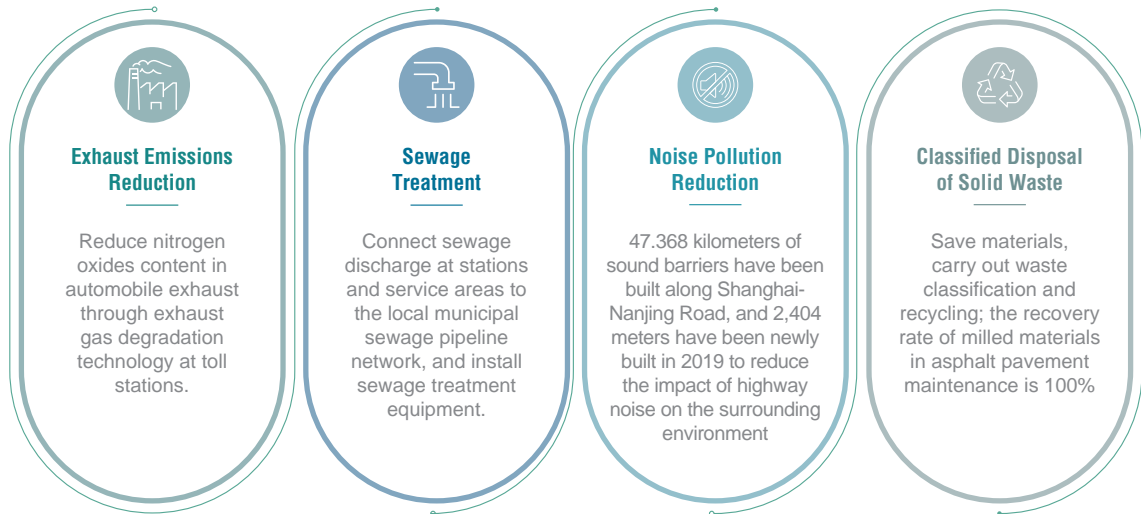
Note 1: The converted standard coal coefficient of natural gas equals to the average of oil field and gas field natural gas.

Note 2, Note 3: The company's energy consumption data is calculated according to the cost of water, electricity and coal. According to tax requirements, since September 2019, the service area has adjusted the accounting of the water and electricity bills of the tenants, and included the water and electricity bills that the tenants should bear into the current expenses of the service zone, causing a significant increase in the company's energy consumption. Excluding the water and electricity charges borne by the tenant, the actual water and electricity charges in the service area decreased by 44.54% year-on-year.

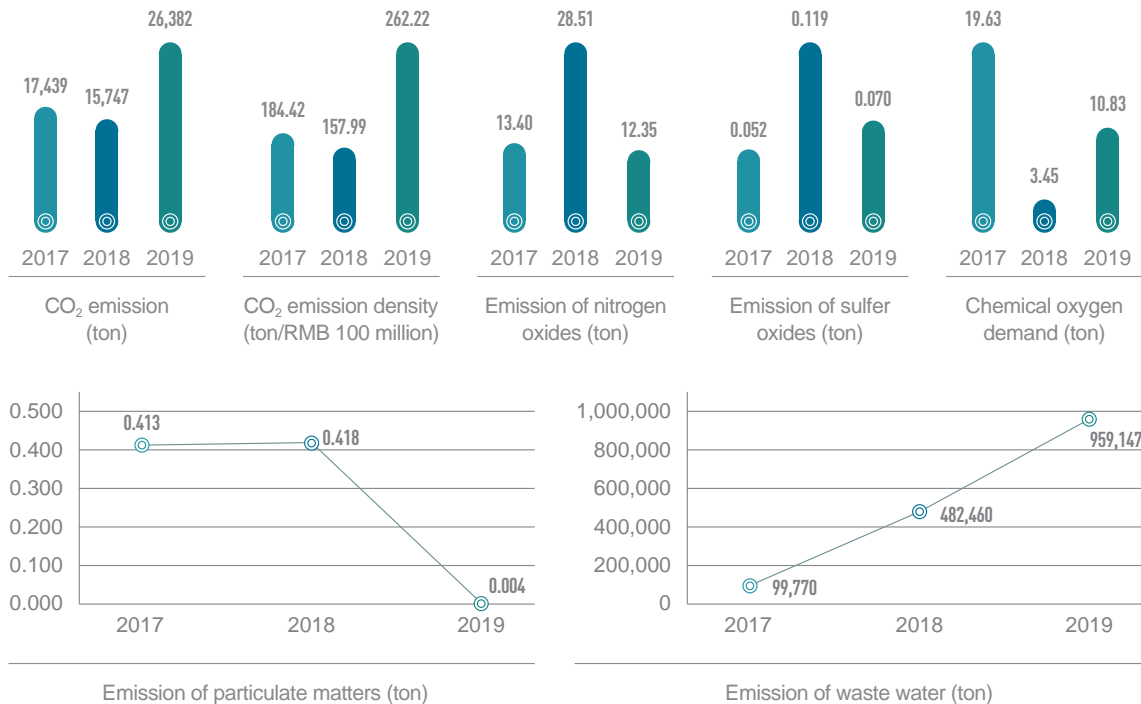
Note 4: It is not applicable to the Company. There is no packaging material in the Company's business.

## Emission Reduction

The Company enforces national and local laws and regulations on emission management, such as *Environmental Protection Law*, *Air Pollution Prevention and Control Law*, *Water Pollution Prevention and Control Law*, *Law on the Prevention and Control of Environmental Pollution by Solid Waste*, *Soil Pollution Prevention and Control Law* and *Regulation of Jiangsu Province on the Administration of Kitchen Wastes*. We actively formulate and implement relevant regulations on our environmental management system to reduce the generation of waste and the impact of project construction and operation on the environment.



Emission reduction measures





We have developed measures for the management of different types of wastes. We aim to reduce the generation of wastes and their impact on the environment by saving and recycling resources and delivering hazardous waste to qualified third parties for disposal. In 2019, we saw decreases in wasted chemical materials, waste containers for paint, paper, and metal in varying degrees.

	Category	Unit	2017	2018	2019	Increase/decrease compared with last year	Unit	Density (2019)
Hazardous wastes	Waste chemical materials and their packages and containers	piece	520	148	36	-76%	piece / RMB million	35.8
	Waste containers for paint and oil	piece	135	135	121	-10%	piece / RMB million	120.3
	Oil-stained gloves	pair	1070	1926	5472	184%	pair / RMB million	5438.8
	Waste ink cartridges (including waste power)	piece	209	233	284	22%	piece / RMB million	282.3
	Waste cartridges	piece	247	507	588	16%	piece / RMB million	584.4
	Electronic wastes such as batteries	kg	127	23.85	113.08	374%	kg / RMB million	112.4
	Waste fluorescent lamps	kg	367	97.01	155.04	60%	kg / RMB million	154.1
Non-hazardous wastes	Paper	ton	10.73	75.07	8.37	-89%	ton / RMB million	8.3
	Kitchen wastes	ton	512.39	1044.52	1404.74	34%	ton / RMB million	1396.2
	Plastic	ton	1.87	0.88	0.93	6%	ton / RMB million	0.9
	Metal	ton	3.89	1.22	0.82	-33%	ton / RMB million	0.8
	Wooden products	ton	1.6	1.33	1.68	26%	ton / RMB million	1.7

Wastes generated by Jiangsu Expressway

#### CASE

##### Strengthening sewage disposal and upgrading double-layer oil tank in service areas to promote sustainable development

According to the *Notice of the State Council on Printing and Distributing the Action Plan for Water Pollution Prevention and Control*, *Notice of the Provincial Government on Printing and Distributing the Work Plan for Water Pollution Prevention and Control in Jiangsu Province* and *Notice on Doing Well in the Renewal of the Underground Oil Tank Double-layer Tanks at the Gas Station or the Improvement of the Seepage Control Pool*, as of the end of 2019, six pairs of sewage in the service area along the Shanghai-Nanjing road have been connected to the municipal pipe network, and the renovation and reconstruction of a total of 60 double-layer oil tanks at 12 gas stations have been completed. Compared with impervious single-layer oil tank, double-layer oil tank enjoys the advantages of being more eco-friendly, easier to construct, more reliable in quality, and more compatible with the future construction trend of oil stations. Upgrading double-layer oil tank effectively avoids groundwater pollution and soil pollution caused by oil leakage, eliminating potential safety hazards, and improving the oil storage capacity of gas stations to help the service area develop more sustainably.

## Green Maintenance

Road maintenance is vital to highway operation. The Company, by integrating green development into road maintenance, actively promotes green maintenance. We continue to apply new technologies and green materials to reduce the impact of road maintenance on the environment while guaranteeing high carrying capacity of expressways and quality services. In 2019, the Company earnestly promoted the application of new technologies, processes, and materials, such as road thermal regeneration, seam tape and potting adhesive, environmental snow-melting agents, and pavement comprehensive repair vehicles in construction projects to boost the quality and efficiency of green maintenance.

### CASE

#### Innovating in mobile cleaning technology to create a safe, smooth, beautiful and comfortable traffic environment

Highway cleaning is an important part of road maintenance. With the continuous increase of traffic flow, the outdated manual cleaning method with low efficiency and great danger makes cleaning an increasingly onerous task. Therefore, in 2019 the Company innovated the "2 + 1" scheme of "mechanical based and manual assisted" road mobile cleaning, that is, the road sweeper and anti-collision vehicle operate in collaboration in a strip formation. Such a collaborative mechanism greatly improves efficiency, reduces danger, and avoids congestion caused by cleaning.



In 2019, the Company reused of waste asphalt residue and other waste materials **100%** and use of seam tape, potting adhesive, and other low-carbon maintenance materials **100%**



In 2019, the Company basically completed the greening project covering all stations along the line, covering a total area of about **1.36** million square meters for the median strips, service areas and toll stations. We painted the old façades of buildings (structures), and renovated dilapidated roofs, which together totaled about **31,000** square meters. We repaired walls, bridge guardrails, median strip guardrails and isolating railings with a total length of **9,000** meters. In addition, we removed a total of **29,000** square meters of illegal accumulations, unauthorized structures, and weed habitat, and renovated **50,000** square meters of cement pavement into asphalt pavement at toll stations.

## Landscaping

The Company pays attention to the impact of expressway operation on nature, and is committed to providing the public with "safe, smooth, beautiful and comfortable" driving environment. In 2019, according to the three-year plan of the *Implementation Plan for the Comprehensive Improvement of the Environment along the Jiangsu Section of Shanghai-Nanjing Expressway*, the Company orderly carried out greening projects, including median strips, interchange zones, and station areas along the whole line, and improved pavement conditions, making Shanghai-Nanjing Expressway a "beautiful landscape of Jiangsu Province".



*Solidago canadensis* is a kind of malignant weed, with developed rhizome, strong fecundity and fast propagation speed. It competes with surrounding plants for sunlight and fertilizer until other plants die, which poses a serious threat to biological diversity and is listed in the *Inventory of Invasive Alien Species in China* (the Second Batch). The Company has formulated the *Operation Regulations on Prevention and Control of Solidago Canadensis*, and regularly removes the weed to safeguard road quality and reduces the harm of alien invasive species.









# Heartfelt Services



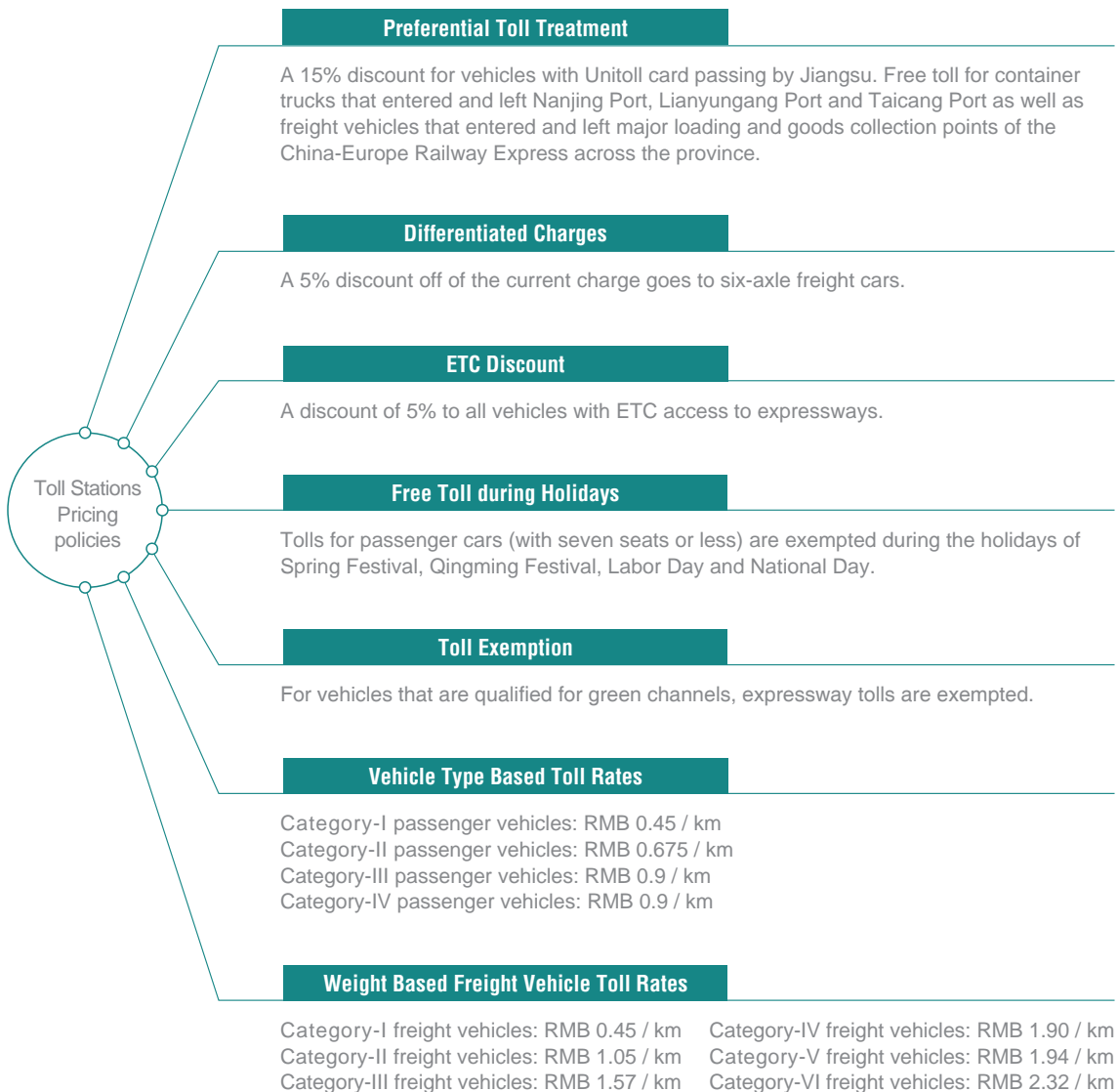
As public infrastructure, highway provides strong support for regional economic and social development and facilitate people's travel. Adhering to the social responsibility philosophy of "guarding safety and marching towards the future", the Company provides heartfelt services for its customers. By providing them with quality services, sharing harmonious development with employees, and working closely with suppliers and partners, the Company aims to contribute to a better community.

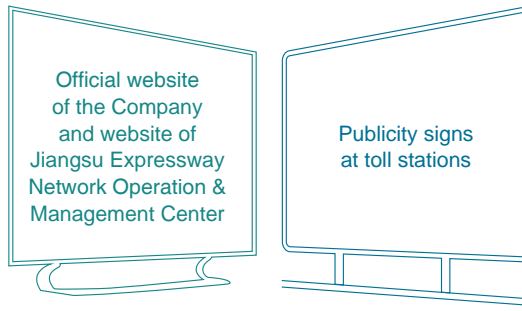
## Quality Service

The Company upholds the service philosophy of “customer first and attentive service”. Our innovation-driven intelligent methods have improved the quality of basic services, and promoted standardization and management of service areas. By offering quality services, we aim to enhance the satisfaction and happiness of drivers and passengers.

### Guaranteeing Basic Services

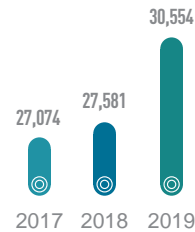
Adhering to the principles of openness, fairness, honesty and credibility, the Company has formulated the pricing policy for service areas in accordance with relevant provisions within the *Regulations of the People's Republic of China on Price Control*, and worked out *Operation Management Measures*, and *Toll Administration Measures* to ensure quality services at all toll stations. We actively implement national and local preferential toll policies on expressways to help reduce transportation and logistics costs.



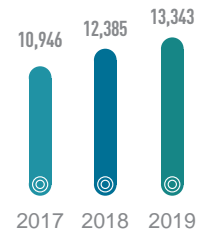


Channels for transparent pricing policies at toll stations

Total tolls exempted for major holidays and festivals (RMB 10,000)



Total tolls exempted for green channels (RMB 10,000)



Total tolls exempted for major holidays and festivals and green channels

The Company continuously improves service at toll stations and conducts inspection and assessment in accordance with relevant regulations. We actively promote electronic toll collection by increasing the number of ETC lanes and self-service card issuing lanes, achieving mobile payment along all expressways and greatly boosting tolling efficiency. We have built a team to provide round-the-clock maintenance service for hardware and software facilities of the tolling system in order to carry out routine maintenance and repair with high quality, and ensure reliable services at all toll stations.

The Company tracks the needs of safe and convenient travel for passengers. The lane guardrails are set up to protect ordinary drivers and passengers, and the passenger car lanes and truck lanes are separated, which not only improves traffic efficiency but effectively reduces the accidents in the lanes. The Company also pays special attention to the travel needs of people with disabilities and women passengers, and has expanded the coverage of basic services through various means to make sure they are non-discriminatory. By setting up disabled parking spaces, barrier-free passageways, accessible basins, and providing free wheelchairs, the Company endeavors to facilitate the travel of disabled passengers. Besides, we provide 24 hour nurseries, women's parking spaces, and unisex toilets to facilitate female travelers. We also set up the "168 Service Station" to offer help and consultation to special groups.

## Improving Customer Experience

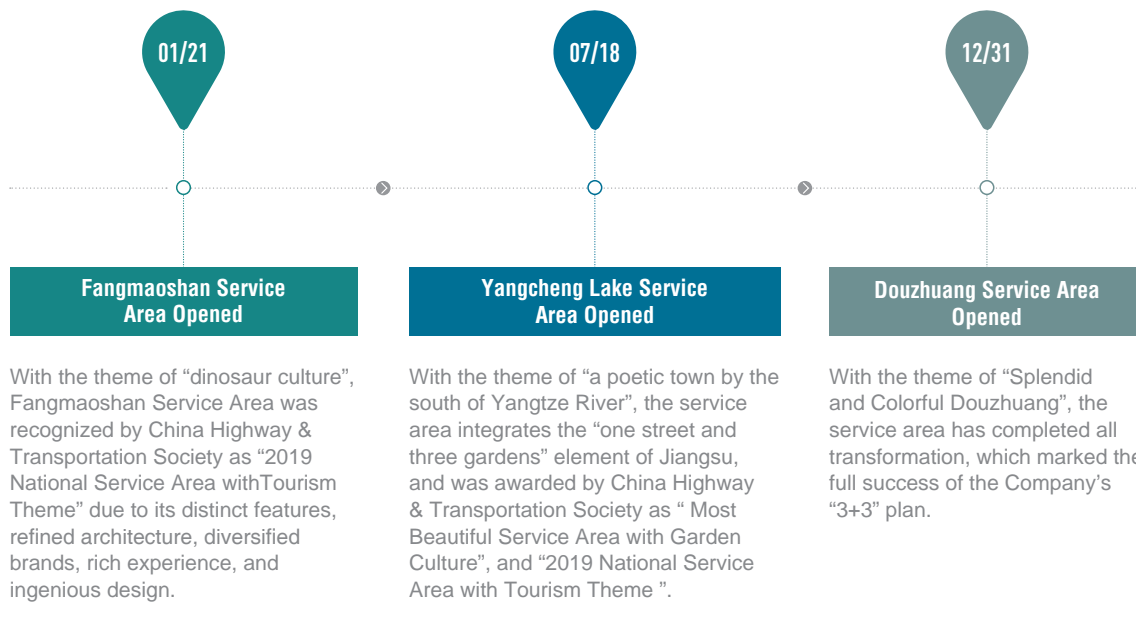
Aiming at national strategy, industrial development trend, and people's demand for a better life, the Company seeks new breakthroughs in the reform and transformation of service areas to provide better travel experience, fill the gap in demand for travel and consumption, and achieve social and economic benefits.

Based on the strategy of improving the service quality and operational benefits of service areas, the Company has thoroughly implemented the Opinions on Further Improving the Service Quality and Operational Benefits of Expressway Service Areas through the development concept of "transport + travel" and "transport + culture" to upgrade software and hardware facilities of service areas. We provide customers with more diversified and better services, promote the transformation of the business model of service areas to build warm stations for drivers and passengers, and establish a "Jiangsu model" for the transformation and upgrading of service areas.



Guidelines on transformation and upgrading



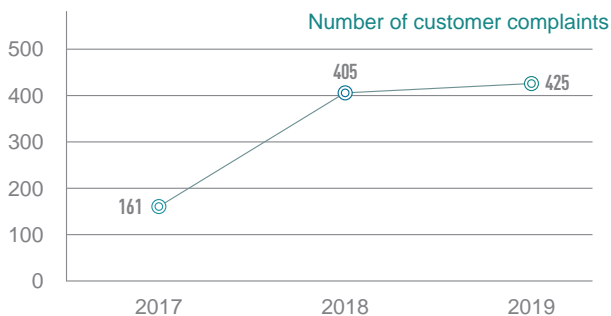


Total tolls exempted for major holidays and festivals and green channels

In the future, the Company will strive to achieve both economic and social benefits in the outcome of "3 + 3" business model transformation of service areas, and set up a new trend with meticulous work, high-quality service and a shining image to shore up efficiency and quality, meet the diversified, personalized and quality travel needs of the people, and harness high-quality development of the Expressway.

## Handling Customer Complaints

Since the establishment of the ISO 9001 quality management system, the Company has firmly followed Management Measures on Handling Complaints, and set up a special department to handle complaints, thus ensuring the convenience and smoothness, and efficiency of complaint channels. In addition, the Company classifies and analyzes the complaints on a regularly basis to develop targeted solutions to optimize customer service. The Company also continuously strengthens employee trainings by holding professional skill competitions, and improves complaint handling efficiency by locating root causes with an aim to gradually reduce complaints and increase customer satisfaction.



Customer complaints and handling rate

## Sharing of Achievements Development

Upholding the "people-oriented" management philosophy, Jiangsu Expressway regards employees as an important wealth, safeguards their legitimate rights and interests, provides them broader career development path and cares for their physical and mental health, so as to achieve common growth with them.

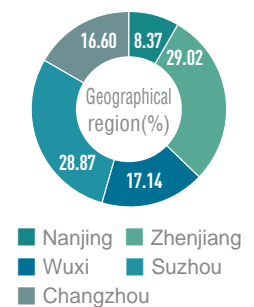
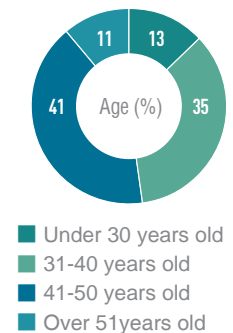
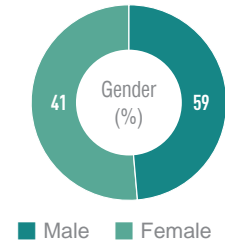
### Harmonious Labor Relations

The Company strictly abides by relevant national and local laws and regulations, including the *Company Law*, *Labor Contract Law*, *Employment Promotion Law and Regulations on Salary Payment of Jiangsu Province*, and persists in fair and equal employment. In addition to prohibiting the discriminatory terms on gender, nationality, religious belief, etc. in the recruitment, we will not recruit minors under the age of 16 and forbid any form of child labor and forced labor. The identity information of recruiters is strictly reviewed to avoid any violations in recruitment. Besides, we provide equal employment for male and female employees with different ages, education background and ethnicities, ensuring a diverse corporate atmosphere. During the reporting period, there were no violations or negative incidents in the Company. As of the end of 2019, the Company had a total of 3,283\* employees.

The Company upholds the principle of people first and has gradually improved the management system that caters to the modern corporate human resources management and fits the reality of the Company according to the requirements of "clear responsibility, standardized operation, competence and high efficiency, harmony and integration". In accordance with the national laws and regulations and other requirements, the Company has formulated *Human Resources Management Measures*, *Employee Rewards and Punishment Management Measures (Interim)*, *Regulations on Performance Assessment and Compensation Management Rules (Interim)*, etc. to develop rational plans for the introduction and development of talents and optimize the allocation of human resources. The Company has improved the performance appraisal system and salary distribution plan to enhance the standardization and scientific management of performance evaluation and boost employee performance. Also, the Company upgrades the talent selection, introduction, recruitment, cultivation and promotion mechanism, and builds teams of management, technical personnel and staff in line with the Company's long-term development. In respect of employee rewards, the Company insists on the combination of moral encouragement and material rewards while prioritizing moral encouragement. For employees who violate disciplines, the Company highlights education and takes punishment as a complementary measure. For serious disciplinary violations, the Company will give prior notices to its employees involved concerning the termination of their labor contracts.

As to compensation distribution, the Company adheres to the principle of distribution according to work performance. Based on salary cap control, we tie salary distribution to performance assessment. In addition to providing the employees with social insurances and housing fund, we also formulate the *Regulations on Supplementary Medical Insurance Management* and provide fund-based insurance and critical illness insurance to make up for the insufficiency of basic medical insurance for all employees and retirees, which also reduces the economic burden of employees who suffer from illnesses. According to the *Enterprise Annuity Measures*, employees who lost their working capability completely can apply for the enterprise annuity. The *Enterprise Annuity Implementation Rules* also provide multi-level pension guarantee for retired employees.

Jiangsu Expressway has divided the working hours of employees into day shifts and rotating shifts according to the *Regulations for Attendance Management of Employees*. Except for legal holidays, workers of the day shifts work 5 days a week and 8 hours a day; while for workers of rotating shifts, we adopt the four-three system to ensure their working hours are 40 hours per week. Apart from national statutory holidays, we offer 5 to 15 days of paid leave to employees according to the *Regulations on Annual Paid Leave*. Besides, all employees can also enjoy paid sick leave, special casual leave, wedding and compassionate leave; female employees have maternity leave and miscarriage leave while male employees enjoy paternity leave.



Employee structure based on gender, age, job type and region

Note: The employee data only covers the working employees of the parent company

Disclosure	Category	Unit	2019
Employee turnover rate by gender, age group and geographical distribution	Turnover rate of male employees	%	2.00
	Turnover rate of female employees	%	1.10
	Turnover rate of employees under 30 years old	%	7.50
	Turnover rate of employees between 31 and 40 years old	%	0.50
	Turnover rate of employees between 41 and 50 years old	%	1.00
	Turnover rate of employees over 51 years old	%	0.51
	Turnover rate of local employees	%	0.20
	Turnover rate of non- local employees	%	4.00
	Turnover rate of employees from Nanjing	%	4.39
	Turnover rate of employees from Zhenjiang	%	3.15
	Turnover rate of employees from Wuxi	%	4.46
	Turnover rate of employees from Suzhou	%	5.02
	Turnover rate of employees from Changzhou	%	3.38

Employee turnover rate by gender, age group and regional distribution

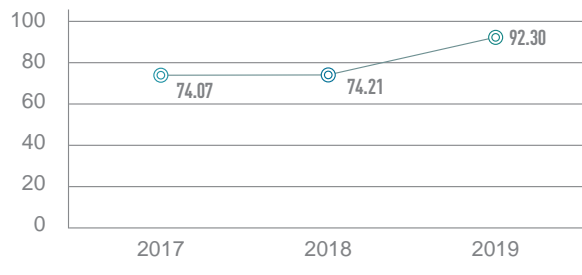
Jiangsu Expressway has established and improved the employee representative system, transparent corporate governance system, employee opinion soliciting system, employee rational proposal system and other relevant systems to facilitate democratic engagement and management within the Company. By regularly holding employee representative conference and meeting of trade union members, the Company effectively protects employees' right to democratic decision-making, management and supervision. In 2019, the employee representative conference deliberated and passed the *Measures for the Administration of Trade Union Funds* in order to build a "democratic home" to the satisfaction of our employees, and safeguard the vital interests of employees.



Labor contract  
signing rate  
**100%**



Social insurance  
coverage  
**100%**



Employee satisfaction rate

Jiangsu Expressway visits employees during Chinese Spring Festival and other festivals, and continues providing the staff relief fund for the staff in need of assistance, helping them solving life difficulties. In 2019, we helped 190 employees and granted the staff relief fund of RMB 173,300 to employees in extreme difficulties.



## Employee Training and Development

The Company continuously expands the development space for employees, motivates them to be more enthusiastic, active and creative, and creates an excellent platform for them to grow.

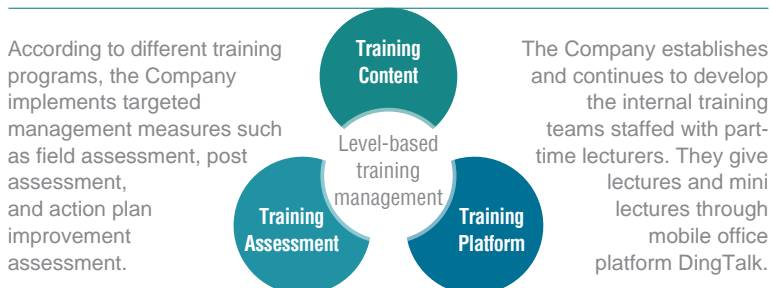
### ◎ Improving Promotion Channels

The Company constantly updates its promotion mechanism by clarifying the promotion qualification, process and performance appraisal to make sure that employees see a clear picture of their career paths. In 2019, the Company promulgated the *Regulation on Administration of Supervisors and Regulation on Administration of Specialist (Office) Posts*, and implemented the *Guidance on Further Strengthening and Improving Labor Employment Management of Affiliated Road and Bridge Units* and *Opinion on the Management of Middle-level Personnel of Jiangsu Communications Holdings Co., Ltd.*

### ◎ Organizing Diversified Trainings

The Company has established and continued to improve the *Employee Education and Training Management System* for tiered management. Training programs have been carried out in three aspects: new management philosophy, professional competency and new talents to ensure the clear guidance, focus and tiered implementation. According to the characteristics of trainees, we combine online and offline platforms and make tailored plans to impart knowledge that build incrementally on each other. Through regular management trainings, we hope to consolidate the employees' knowledge base for their future development. In 2019, we set up the "Book Reading - Young Staff Training Program" for the first time, and welcomed 83 participants. In 2019, the Company's employee training coverage reached 100%, and each employee received an average of 19 hours of training.

Key training contents are classified into different tiers according to the professional fields of employees, aiming to improve their comprehensive management capabilities, competency, creativity, and professional knowledge.



### ◎ Supporting Employees to Survive the Transformation

In order to ensure smooth job transfer of related personnel, the Company formulates feasible training programs, and appraisal mechanisms for probation period according to the needs of service area upgrading and the cancellation of toll stations. Besides, we also assign specific personnel to oversee and follow up with the work. To cope with trend of "machine replacing manual labor", we actively explore ways to enhance the professional skills of front-line employees, improve their work efficiency and service level, and organize training programs on information technology. In 2019, 21 employees were transferred to new posts.



In 2019, male employees were trained for an average of **18** hours, female employees were trained for an average of **20** hours; grassroots employees were trained for an average of **19** hours; mid-level employees were trained for an average of **65** hours; and senior employees were trained for an average of **130** hours.

## Caring for the Physical and Mental Health of Employees

Jiangsu Expressway advocates work-life balance. The Company creates a cozy and happy working and leisure environment for employees, and organizes a variety of cultural and sports activities to strengthen its psychological care for employees, thus protecting their physical and mental health.

### ◎ Creating a Cozy Working Environment

The Company actively improves the working environment of toll stations and service areas, optimizes and renovates hardware and software facilities of toll stations to improve the senses of happiness, gain and satisfaction of our staff.

Cozy dormitory with high living and decoration standard at Wuxi North Toll Station



The "satisfactory canteen" at Suzhou Office



Yuqi Service Station with garden style

### © Organizing Diversified Cultural and Sports Activities

Adhering to the cultural philosophy of “happy work, healthy life”, the Company organizes diversified cultural and sports activities for employees to demonstrate their talents and enhance their unity.



The First Shanghai Nanjing Expressway Good Voice Singing Competition



"Longcheng Cup" Staff Badminton Competition



### © Caring for the Mental Health of Employees

The Company formulates the *Opinion on Establishing a Staff Psychological Guidance System to Strengthen Employees' Mental Health*, hires part-time psychological observers, and regularly hosts exchange activities for them, including the Third-level Psychological Consultant Certification Training, Short-term Training Class on Behavioral Therapy, and Behavioral Therapy Advanced Class. We established counseling centers, which would deliver psychological health lectures on a regular basis, and organize team building activities to relieve employees' pressure from work and life.

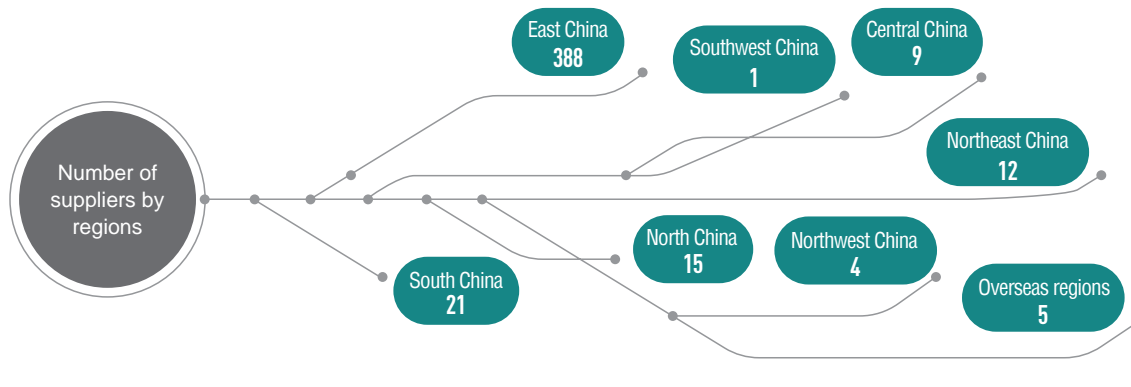


## Win-win Cooperation

Partners have provided strong support for the development of the Company, and we respect the interests of all parties for win-win cooperation. At the same time, we also actively leverage our exemplary guiding role in the transport industry and contribute to industrial development.

### Responsible Procurement

In order to further strengthen the compliance management of procurement, and promote the standardization of procurement activities, the Company relies on the procurement center of Jiangsu Communications Holdings Co., Ltd. to select suppliers. In 2019, the Company revised important rules and regulations such as the *Contract Management Measures*, and *Bidding and Procurement Management Measures*. With a focus on the control of key links, such as procurement plan preparation and implementation, project implementation, bidding and procurement, contract implementation, and supplier assessment, we wish to further enhance the risk prevention aspect in purchasing and contract management, and ensure the openness, fairness, and transparency of the process.



Number of suppliers by regions

### Boosting Development of the Industry

The Company actively participates in the events of industry associations, conducts special researches on industry trends and organizes visits and exchanges to share experience with our partners to contribute to the strategy of building Jiangsu into a province with strong transportation network, and facilitate the high-quality development and operation of expressways.

The Company actively participates in industry organizations such as the China Expressway Association, Jiangsu Province Association of Communications Enterprises, Jiangsu Province Comprehensive Transportation Society (Association) to support the development of the industry.

The Company conducts relevant researches on the needs and concerns of the industry, and it has been keeping pace with the development frontier of the industry to explore feasible solutions for highway technology development and service upgrading.



The Company actively visits and exchanges with partners in the industry, and shares advanced concepts and practical experience of highway operation management, aiming to develop together with all partners.

Measures to boost development of the industry

## Harmonious Communities

In pursuit of shared development of the Company and the community, we pay great attention to the expectations and appeals of the community, actively carry out pairing-up assistance activities, and participate in public welfare undertakings to build a harmonious society.

### Supporting Poverty Alleviation

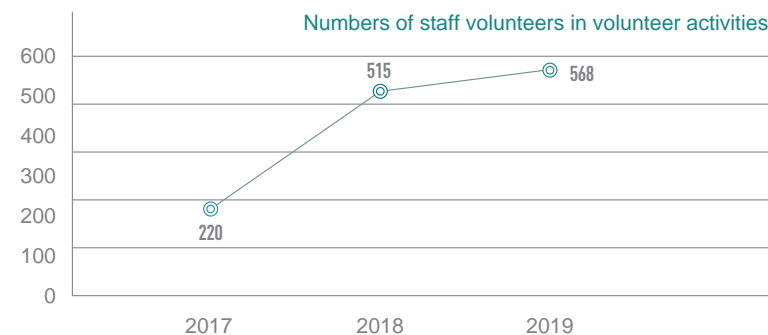
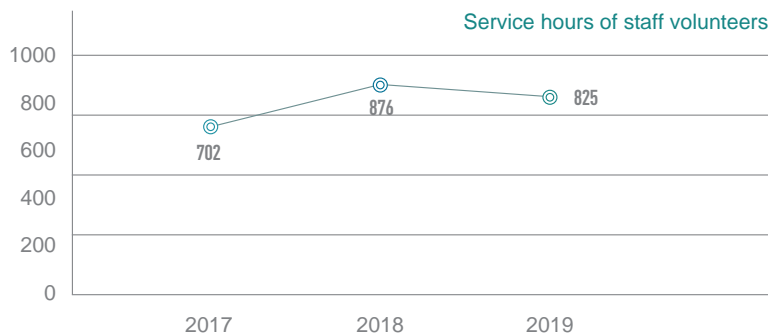
Winning the fight against poverty is an important part of building a moderately prosperous society in all respects. The Company pays attention to, and addresses the needs of economic and social development in poverty-stricken areas by fully leveraging its own advantages. In 2019, the Company joined hands with Jiqiao Village, Guannan County to launch the 2018-2019 Collaborative Construction Project, invested RMB 400,000 in targeted poverty alleviation, and donated RMB 50,000 to the Red Cross Society of Jiangsu Province for poverty alleviation in key areas in the northern area of the province. We also launched the "Targeted Poverty Alleviation - One Day Donation" activity, which raised a total of RMB 52,411 from 1,575 people to relieve poverty in key areas of the province.

### Volunteering Services

The Company has nurtured a good volunteering culture and established youth volunteer teams to provide regular services. Volunteers may register and participate in the activities that interest them on "Volunteer Clock-in" APP. Besides, the Company holds an award event every two years to recognize outstanding volunteers and volunteer teams. In 2019, our team of 1,201 volunteers donated a total of RMB 302,400.



The Company was awarded  
the title of  
**"Top Ten Credit Units"**  
in the transportation industry  
of Jiangsu province.



Volunteer performance

The Company, through rich voluntary activities, including blood donation, tree planting, convenient service, safety publicity, and caring for the elderly and vulnerable groups, contributes to a better community.



Voluntary activities of safety publicity and cleaning the environment





# Appendixes

## Report Description

The Board of Directors (the “Board”) and the directors of the Company guarantee that there are no false representations, misleading statements or material omissions from this report, and assume several and joint liability for the truthfulness, accuracy and completeness of the contents of this report.

### Reporting Purpose

Jiangsu Expressway Company Limited has released social responsibility report annually since 2009 to disclose the Company’s social responsibility philosophy and management practices and performance of social responsibility to the shareholders, creditors, employees, customers and other stakeholders. We hope that this report will serve as a bridge for communication and interaction with all sectors of the society, whereby they could have a better understanding of the Company. At the same time, with the issuance of this report, we are subject to the oversight of all parties concerned, which will procure the Company to make further contributions to the sustainable development of the economy, society and environment.

### Changes in Reporting Contents

This report is prepared in accordance with the *Environmental, Social and Governance Reporting Guide* released by the Stock Exchange of Hong Kong Limited (HK-ESG), and *GRI Sustainability Reporting Standards (GRI Standards)* issued by Global Sustainability Standards Board (GSSB). In this report, we give more detailed information on our disclosure on management approach (DMA) towards material topics and focus on measuring our performance in corresponding sustainability issues.

### Reporting Period

This report mainly covers information about our management and practice from 1 January, 2019 to 31 December, 2019. For the purpose of compliance with the principle of complete and timely information disclosure, certain contents may extend beyond the stated period.

### Release Cycle

This is an annual report and is the 11th corporate social responsibility report released by Jiangsu Expressway Company Limited. The last report was published in March 2019.

### Reporting Boundary

The Report covers Jiangsu Expressway and nine wholly-owned and non-wholly-owned subsidiaries (consistent with the scope covered by the consolidated financial statements)

### Basis of Preparation

This report is prepared in accordance with *Environmental, Social and Governance Reporting Guide* released by the Stock Exchange of Hong Kong Limited (HK-ESG), *The Guidelines for Compiling Reports of the Practice of Social Responsibilities by Enterprises and Notice on Further Improving the Information Disclosure of Poverty Alleviation by Listed Companies* released by the Shanghai Stock Exchange, *GB/T 36001 Guidance on Social Responsibility Reporting, GRI Sustainability Reporting Standards (GRI Standards)* issued by Global Sustainability Standards Board (GSSB), and *ISO 26000: Guidance on Social Responsibility (2010)* released by the International Organization for Standardization (ISO), integrating relevant key guidelines and standards and highlighting the characteristics of the industry and the Company.

### Information Source

All related materials, data and cases are provided by the Company and have been reviewed by relevant Departments.

### Reference

For convenience and readability, “Jiangsu Expressway Company Limited” in this report is referred to as “Jiangsu Expressway”, “the Company” or “we”, “our” or “us”.

### Access to this Report

This report is published in Chinese and English. For any discrepancy between the two versions, the Chinese version shall prevail. Electronic version of the report is available for review and downloading on the websites of Shanghai Stock Exchange and Jiangsu Expressway ([www.jsexpressway.com](http://www.jsexpressway.com)). If you have any suggestions about the report, please contact us:

Department: Office of the Secretary of the Board

Tel.: 8625-84362700-301835 / 301836

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E-mail: [jsnh@jsexpwy.com](mailto:jsnh@jsexpwy.com)

Address: No. 6 Xianlin Avenue, Nanjing, Jiangsu Province, the P.R.C

## HK-ESG Content Index

Indicator		Disclosure	Page
A. Environmental			
Aspect A1 Emissions	General Disclosure Information on the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer, relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste	Green Development — Environment Management Green Development — Emission Reduction	P40, P41-42
	A1.1 The types of emissions and respective emissions data	Green Development — Emission Reduction	P41-42
	A1.2 Direct (category 1) and indirect (category 2) greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	Green Development — Emission Reduction	P41-42
	A1.3 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	Green Development — Emission Reduction	P41-42
	A1.4 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	Green Development — Emission Reduction	P42
	A1.5 Description of measures to mitigate emissions and results achieved.	Green Development — Emission Reduction Green Development — Green Maintenance	P40-43 Note: During the reporting period, Jiangsu Expressway has not set emission targets, and will carry out relevant work next.
	A1.6 Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Green Development — Emission Reduction Green Development — Green Maintenance	P40-43 Note: During the reporting period, Jiangsu Expressway has not set reduction targets, and will carry out relevant work next.
Aspect A2 Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials	Green Development — Environment Management Green Development — Energy Conservation	P40
	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility)	Green Development — Energy Conservation	P40
	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility)	Green Development — Energy Conservation	P40
	A2.3 Description of energy use efficiency initiatives and results achieved	Green Development — Energy Conservation	P40 Note: During the reporting period, Jiangsu Expressway has not set energy use efficiency targets, and will carry out relevant work next.

Indicator		Disclosure	Page
Aspect A2 Use of Resources	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	Green Development — Energy Conservation	P40 Note: No issue found in sourcing water. During the reporting period, Jiangsu Expressway has not set water efficiency targets, and will carry out relevant work next.
	A2.5 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced		Not applicable. The operation of Jiangsu Expressway does not involve manufacturing process.
Aspect A3 The Environment and Natural Resources	General Disclosure Policies on minimising the issuer's significant impact on the environment and natural resources	Green Development — Environment Management Green Development — Landscaping	P40, P43
	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	Green Development — Landscaping	P43
Aspect A4 Climate Change	General Disclosure Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Green Development— Environment Management	P40
	A4.1 Description of significant climate-related issues which have actual/potential impact on the issuer and actions taken to manage them	Smooth Traffic—Emergency Mechanism for Guaranteeing Smooth Traffic Green Development— Environment Management	P33, P40
B. Social			
Aspect B1 Employment	General Disclosure Information on the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer, relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare	Heartfelt Services —Sharing of Achievements Development	P49-50
	B1.1 Total workforce by gender, employment type, age group and geographical region	Heartfelt Services —Sharing of Achievements Development	P49-50
	B1.2 Employee turnover rate by gender, age group and geographical region	Heartfelt Services —Sharing of Achievements Development	P50
Aspect B2 Health and Safety	General Disclosure Information on the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer, relating to providing a safe working environment and protecting employees from occupational hazards	Safe Traffic —Health and Safety of Employees	P26



	Indicator	Disclosure	Page
Aspect B2 Health and Safety	B2.1 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Safe Traffic —Health and Safety of Employees	P26
	B2.2 Lost days due to work injury	Safe Traffic —Health and Safety of Employees	P26
	B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored	Safe Traffic —Health and Safety of Employees	P27
Aspect B3 Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities	Heartfelt Services —Sharing of Achievements Development	P51
	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	Heartfelt Services —Sharing of Achievements Development	P51
	B3.2 The average training hours completed per employee by gender and employee category	Heartfelt Services —Sharing of Achievements Development	P51
Aspect B4 Labour Standards	General Disclosure Information on the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer, relating to preventing child and forced labour.	Heartfelt Services —Sharing of Achievements Development	P49
	B4.1 Description of measures to review employment practices to avoid child and forced labour.	Heartfelt Services —Sharing of Achievements Development	P49
	B4.2 Description of steps taken to eliminate such practices when discovered.		Note: No occurrence of such violation during the reporting period.
Aspect B5 Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain	Heartfelt Services —Win-win Cooperation	P54
	B5.1 Number of suppliers by geographical region	Heartfelt Services —Win-win Cooperation	P54
	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	Heartfelt Services —Win-win Cooperation	P54
	B5.3 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Heartfelt Services —Win-win Cooperation	Note: During the reporting period, Jiangsu Expressway has not managed this indicator, and will carry out relevant work next.
	B5.4 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Heartfelt Services —Win-win Cooperation	Note: During the reporting period, Jiangsu Expressway has not managed this indicator, and will carry out relevant work next.

	Indicator	Disclosure	Page
Aspect B6 Product Responsibility	General Disclosure Information on the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress	Safe Traffic —Road Quality  Safe Traffic —Road Safety	P24-25
	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.		Note: Not applicable due to the business nature of the Company
	B6.2 Number of products and service related complaints received and how they are dealt with	Heartfelt Services —Quality Service	P48
	B6.3 Description of practices relating to observing and protecting intellectual property rights.		No data
	B6.4 Description of quality assurance process and recall procedures.		Note: Not applicable due to the business nature of the Company.
	B6.5 Description of consumer data protection and privacy policies, how they are implemented and monitored	Innovative Growth —Intelligent Expressways	P18
Aspect B7 Anti-corruption	General Disclosure Information on the policies; and compliance with relevant laws and regulations that have a significant impact on the issuer, relating to bribery, extortion, fraud and money laundering	Strategy and Governance —Anti-corruption Management	P8-9
	B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Strategy and Governance —Anti-corruption Management	P8-9
	B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored	Strategy and Governance —Anti-corruption Management	P8-9
	B7.3 Description of anti-corruption training provided to directors and staff.	Strategy and Governance —Anti-corruption Management	P8-9
Aspect B8 Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities's interests	Heartfelt Services —Harmonious Communities	P55-56
	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport)	Heartfelt Services —Harmonious Communities	P55
	B8.2 Resources contributed (e.g. money or time) to the focus area	Heartfelt Services —Harmonious Communities	P55

## Feedback Form

Thank you for reading our 2019 Social Responsibility Report. We highly value and are looking forward to receiving your feedback on our social responsibility performance and this report. Your suggestions and comments are valuable basis for us to continue to improve our quality of information disclosure on corporate social responsibility and to promote our corporate social responsibility management and practices. Please complete the form below and send it to us via mail or e-mail. We wholeheartedly appreciate your valuable suggestions!

### What is your overall impression of this report?

☐ Very good      ☐ Good      ☐ Average      ☐ Poor      ☐ Very poor

### How is the structure of this report?

☐ Well-designed      ☐ Reasonable      ☐ Average      ☐ Ill-designed      ☐ Unreasonable

### How about the readability of this report?

☐ Very easy      ☐ Easy      ☐ Average      ☐ Very hard      ☐ Obscure

### Which responsibility issues are your top concerns? (Multiple choice)

#### Governance

☐ Compliance      ☐ Information disclosure and communication      ☐ Risk management

#### Economy

☐ Economic performance      ☐ Reform and transformation      ☐ Road safety  
☐ Smooth traffic      ☐ Road quality      ☐ Intelligent service  
☐ Complaints handling and dispute resolution      ☐ Customer experience enhancement

#### Environment

☐ Green maintenance      ☐ Pollution prevention and treatment      ☐ Low-carbon operation  
☐ Natural ecology protection and beautification

#### Society

☐ Partner support      ☐ Customer safety and health      ☐ Labor and employment relations  
☐ Working conditions and labor protection      ☐ Occupational health and safety  
☐ Employee training and development      ☐ Community engagement

### How is the disclosure of issues of your concern?

☐ Very comprehensive      ☐ Comprehensive      ☐ Touched hereupon      ☐ Partially involved  
☐ Barely mentioned

### What kind of additional information do you expect to see in this report?

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### What are your suggestions on our corporate social responsibility performance or this report:

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