

# CIMC 中集车辆

CIMC Vehicles (Group) Co., Ltd.  
(Stock Code: 301039.SZ/01839.HK)

## 2021

Social Responsibility and  
Environmental, Social and  
Governance Report



# About the Report



The Report is the third “Social Responsibility and Environmental, Social and Governance ( “ESG” ) Report (the “Report” ) issued by CIMC Vehicles (Group) Co., Ltd. (the “Company” or “CIMC Vehicles” , together with its subsidiaries, the “Group” , “we” or “us” ), which discloses our strategic policies on sustainable development, ethics and good governance, setting out our commitment to communicate openly with stakeholders, and our visions and contributions to the environment and society. The Board of the Group clearly knows its responsibility for the authenticity of the Report, takes full responsibility for the Group’s ESG strategies and the reporting, and has reviewed and approved the Report.

## Reporting Period and Scope

The Report discloses the Group’s management approaches, initiatives and performance in relation to ESG from January 1, 2021 to December 31, 2021 (the “Year” or “Reporting Period” ). Some contents of the Report date back to before 2021 and extend to 2022, thereby increasing reference value of the Report. The scope of the content disclosed in the Report is the same as that of the 2021 Annual Report of the Group, while the scope of environmental data covered all manufacturing enterprises of the Group, including 20 domestic enterprises, and 5 overseas enterprises representing an increase of 1 overseas enterprise as compared with last year<sup>1</sup>; in the future, the scope of the Report will be continuously expanded. For further details of corporate governance, please refer to the section headed “Corporate Governance Report” in the Annual Report 2021 of the Group.

## Main Reporting Guidelines

The Report has been prepared mainly by reference to the Environmental, Social and Governance Reporting Guide ( “ESG Guide” ) as set out in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “Hong Kong Stock Exchange” ), and complies with the disclosure principle and the “Comply or Explain” provisions in the ESG Guide. The report describes the impact of the Group’s businesses and operations on the environment and society, in accordance with the social responsibility requirements in the Guide on Self-supervision of Companies Listed on the Shenzhen Stock Exchange No.2 - Standard Operation of Companies Listed on Chinext Market. Unless otherwise specified, all the monetary amounts in the report are denominated in RMB.

## Preparation Principle

The report has been prepared based on the following reporting principles:

**Materiality:** Major ESG issues were identified through the materiality assessment, and relevant information has been disclosed in the report;

**Quantitative:** Quantitative environmental and social information has been presented in the ESG report with descriptions of its purpose and impact, and comparative information will be provided in subsequent ESG reports;

**Consistency:** The report is our third social responsibility and environmental, social and governance report. We will adopt a consistent approach for ESG information disclosure in future years to facilitate meaningful comparisons year by year.

## Publication

The Report is available online in both Chinese and English versions. All shareholders and stakeholders can access to the Report on the website of HKEX at [www.hkexnews.hk](http://www.hkexnews.hk). In case of any discrepancy, the Chinese version shall prevail.

## Contact Information

We highly value our stakeholders and the public’s opinion on the Report. Should you have any enquiries or suggestions, please contact the Group through the following means.

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Tel: 86-755-26802116

Post Code: 518067

Email: [ir\\_vehicles@cimc.com](mailto:ir_vehicles@cimc.com)

<sup>1</sup> In the report, the number of domestic enterprises remains unchanged at 20, as Shaanxi CIMC was added but two enterprises in Zhenjiang were merged.



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# Message from Our Leader



As of the end of 2021, CIMC Vehicles has built globally



13

“Light Tower” plants for semi-trailer production

7

“Light Tower” plants for production of specialty vehicles truck bodies

2

“Light Tower” plants for production of lightweight van truck bodies

Dear stakeholders,

It is our great pleasure to share with you again the latest information on the management of sustainable development of CIMC Vehicles (Group) Co., Ltd. through the Social Responsibility and Environmental, Social and Governance Report 2021.

2021 marks the 100th anniversary of the founding of the Communist Party of China. It is the first year for the 14th Five-Year Plan. In the year, we were listed on the ChiNext Market of the Shenzhen Stock Exchange, becoming the first high-end manufacturer of semi-trailers and specialty vehicles with the listing of A Shares and H Shares. We will accurately grasp the new trend of upgrading the semi-trailer industry. By continuously improving our core competitiveness, we are committed to promoting technological innovation and compliant development of our products in the industry. We will take the listing of A Shares as an opportunity to further build and improve the sophisticated manufacturing system for semi-trailers, truck bodies for specialty vehicles and lightweight van bodies in the world.

In recent years, based on years of experience in global operation and management, CIMC Vehicles have continued to adhere to the business philosophy of “Intercontinental Operation, Local Manufacturing”, so as to build good resilience in the new normal of the global economy. We continuously ranked first in the world in terms of the production volume of semi-trailers in the industry. As at December 31, 2021, the Company’s revenue was RMB27,650 million, representing a year-on-year increase of 4.3%; net profit was RMB990 million.

We continued to implement low-carbon and green manufacturing, comprehensively build a sophisticated manufacturing system, and continuously promote the use, upgrade and update of environmental protection equipment. As of the end of 2021, CIMC Vehicles has built globally 13 “Light Tower” plants for semi-trailer production, 7 “Light Tower” plants for production of specialty vehicles truck bodies and 2 “Light Tower” plants for production of refrigerated truck bodies, among which there are 4 national green plants, 2 provincial green plants, 1 national model enterprise for green supply chain and 1 provincial model enterprise for green supply chain. Meanwhile, to actively respond to the country’s goal of achieving carbon neutrality in 2060, CIMC Vehicles will continue to advance the development and promotion of low-carbon products with lightweight, intelligent, modular and clean energy as the starting points.

In the future, CIMC Vehicles will continue to improve the ESG governance system, guided by high-quality development, and combined with relevant regulatory guideline requirements and the issues that the stakeholders concern, give play to the Board’s ESG leadership role to improve the two-way ESG management mechanism, integrate important ESG issues into the operation and management of the Group, and continue to improve the ESG indicator system, to realize CIMC Vehicles’ vision of “Made in China 2025” by 2025, and create more value for stakeholders and a better life for employees!

Li Guiping  
Executive Director, CEO and President of CIMC Vehicles

# Board's Statement

The Board of the Group is fully responsible for ESG management and reporting, including assessing and identifying the Group's ESG risks and ensuring that the Group has appropriate and effective ESG risk management and internal control systems. The Board and all Directors warrant that the report does not contain any false records, misleading statements or material omissions and are jointly and severally liable for the authenticity, accuracy and completeness of the report.

As the world's leader in sophisticated manufacturing of semi-trailers and specialty vehicles, the Group is engaged in the manufacture, sale and after-sales services for seven major categories of semi-trailers in major markets in the world. In the Chinese market, the Company is a competitive and innovative manufacturer of truck bodies for specialty vehicles as well as a manufacturer of lightweight van bodies. We keep firmly in mind our mission to provide our customers with high-quality, reliable and intelligent vehicle equipment and services, and our shareholders and customers with good returns, and create sustainable value for the society.

The Group has established an ESG management organization system comprising the Board, the Audit Committee, the ESG Reporting Leading Group and the Project Implementation Team, and has clearly defined the assignment of responsibilities at all levels including governance, management, and executive levels, to promote the ESG work of the Company. The Board formulates the ESG strategy of the Group, guides the sustainable development of the Company and monitors the implementation of ESG measures by each subsidiary according to the strategic direction set by the Board. We gradually strengthen the management of objectives in terms of emissions and energy use, summarize relevant progress every year to promote the sustainable development of the Company.

Since the establishment of "Light Tower" plants in 2014, the Group has made continuous efforts to explore sophisticated manufacturing methods. We practice low-carbon and green manufacturing, comprehensively build a sophisticated manufacturing system, and continuously promote the use, upgrade and update of environmental protection equipment, continuously increasing the numbers of "Light Tower" plants and green plants. Under the principle of mutual benefit and win-win cooperation, we form a community with various stakeholders to benefit our shareholders and customers, and share the results of corporate development with our employees.

In addition, we are fully aware of the opportunities and challenges from the green, safe and sustainable development trend of the industry for the operations of the Company. In the future, we will continuously adjust our sustainable development management strategies and promotion methods based on the expectations of our stakeholders and the actual operation of the Group, so as to continuously improve our sustainable development.



# About Us

## Company Profile

CIMC Vehicles (Group) Co., Ltd. is the world's leader in sophisticated manufacturing of semi-trailers and specialty vehicles. According to the Global Trailer 2021's top global OEM ranking list for semi-trailer manufacturers announced in 2021, the Company ranked first for the 9th year running in terms of production volume.

The Company is engaged in the manufacture, sale and after-sales services for seven major categories of semi-trailers in major markets in the world. In the Chinese market, the Company is a competitive and innovative manufacturer of truck bodies for specialty vehicles as well as a manufacturer of lightweight van bodies.

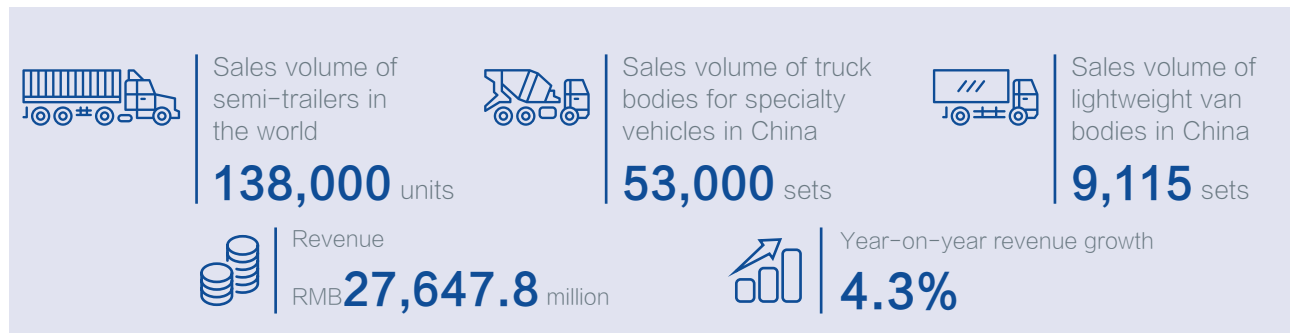
According to the actual operational and strategic management needs, the Company has established six major businesses and groups: "Champion Tanker Business Group", "Light Tower Pioneer Business", "TB Business Group", "Urban Dump Truck Business", "North American Business" and "European Business", so as to remove barriers in operation and achieve the linkage between production and sales and the maximization of benefits.

In July 2019, the Company (1839.HK) was listed on the Main Board of the Hong Kong Stock Exchange. The Company (301039.SZ) was officially listed on the ChiNext Market of the Shenzhen Stock Exchange in July 2021, thus becoming the first enterprise engaged in sophisticated manufacturing of semi-trailers and specialty vehicles with the listing of A Shares and H Shares in the world.



## Intercontinental Operation, Local Manufacturing

### Results of Operations in 2021



After years of continuous exploration and development, the Company has formed a business model of “Intercontinental Operation, Local Manufacturing” in the current globalization. It has given full play to the production capacity, assembly ability, global supply chain management and distribution logistics management ability of 23 production plants and 10 assembly plants around the world, and has formed a cross-border operation paradigm with core competitiveness.

### Deepening the Strategy of Sophisticated Manufacturing System and Multi-brand Arrangements

Under the philosophy of “Intercontinental Operation, Local Manufacturing”, CIMC Vehicles has always been committed to providing customers with high-quality semi-trailer products in the global market. CIMC Vehicles is the sole semi-trailer manufacturing enterprise in the world that can provide all of the seven major categories of semi-trailers. It has the core technology in vehicle design and manufacturing, components and testing, as well as the cross-border manufacturing ability. Through the integration of global industry resources, CIMC Vehicles has established many marketing, sales, manufacturing and research and development bases in China, North America, Europe and other regions and emerging markets (covering more than 40 countries), as well as a service network covering various regional markets around the world.

Since the Company entered the industry in 2002, it has ranked first in terms of sales volume of semi-trailers in the world, with its operating and technological advantages formed with a focus on “concentration and innovation.” In China, the Company operates “Tonghua (通華)”, “Huajun(華駿)”, “SCVC SAILING(深揚帆)”, “CIMC RJST Tank Trailer(瑞江罐車)”, “Lingyu Vehicles(凌宇汽車)” and “Liangshan Dongyue(梁山東岳)”, “TB(太字節)”, “Pioneer Series(先鋒系列)” and “CIMC Light Tower(中集燈塔)” and other renowned brands in the industry, leading the trend of the semi-trailer van development and the compliant development of semi-trailers in China. In North America, the Company operates well-known brands such as “Vanguard” and “CIE.” In Europe, the Company operates two well-known brands with a long history, “SDC” and “LAG.”

Since the Company started to explore the construction of the “Sophisticated Manufacturing System” in 2014, it has established 13 “Light Tower” plants for the production of semi-trailers, 7 “Light Tower” plants for the production of truck bodies for specialty vehicles and 2 “Light Tower” plants for the production of lightweight van bodies at home and abroad, and set up various series of “product modules” of semi-trailer products, and carried out digital transformation and upgrading. The Company is committed to building a “Sophisticated Manufacturing System” and “new management infrastructure” to maintain its long-term competitive advantage.

## OUR BUSINESSES AND PRODUCTS

Covering logistics and transportation, construction machinery,  
urban distribution and cold chain logistics

As the No. 1 semi-trailer manufacturer in the world, CIMC Vehicles is engaged in the manufacture, sale and after-sales services for seven major categories of semi-trailers in major markets in the world



① Container chassis trailers



② Flatbed trailers and relevant derivative types



③ Refrigerated trailers

In China market, CIMC Vehicles is a competitive and innovative manufacturer of truck bodies for specialty vehicles



Urban dump truck bodies



Concrete mixer truck bodies

Coverage over low, middle and high-end brands

In China, the Company operates “Tonghua (通華)”, “Huajun (華駿)”, “SCVC SAILING (深揚帆)”, “CIMC RJST Tank Trailer (瑞江罐車)”, “Lingyu Vehicles (凌宇汽車)”, “Liangshan Dongyue (梁山東岳)”, “TB(太字節)”, “Pioneer Series (先鋒系列)” and “CIMC Light Tower (中集燈塔)” brands





④ Curtain-side trailers

⑤ Tank trailers

⑥ Van trailers

⑦ Other special types of trailers

In China market, CIMC Vehicles is a technologically advanced manufacturer of lightweight van bodies



Dry van truck bodies



Refrigerated van truck bodies

In North America, the Company operates “Vanguard” and “CIE”  
 In Europe, the Company operates “SDC” and “LAG”

## Our Development Milestones



**Initiated the  
journey in  
2002**

- CIMC Vehicles Group entered the industry in 2002, initiating a 20-year journey of struggle

## 2002–2009

A period of rapid growth of domestic business

- Established CIMC Shenzhen, Qingdao Reefer, CIMC Jiangmen, etc.
- Engaged in domestic market competition and expanded its presence in overseas markets.
- Acquired Tong Hua Special Vehicles, Zhumadian Huajun Vehicle, CIMC Shandong and other semi-trailer enterprises
- Established the business categories of truck bodies for specialty vehicles and refrigerated van truck bodies

## 2014–2018

A period of incubation of the sophisticated manufacturing system in China

- Put into operation, Dongguan light tower plant, the first light tower plant
- Carried out modular design of environmentally friendly dump truck bodies, container chassis trailers, tank trailer and centre-axle semi-trailers
- Won the title of “China’s Leading Specialty Vehicle Enterprise” by China Automotive Technology and Research Center



## 2010–2016

A period of rapid growth of global business

- Overseas business grew rapidly, and the Company completed the acquisition of Vanguard in North America, SDC and LAG in Europe
- Under the business philosophy of “global operation, local wisdom”, the Company carried out cross-border design, cross-border manufacturing and global supply chain management
- The Company was granted the award of “Top 100 Enterprises in the Machinery Industry and Top 30 Enterprises in the Automotive Industry” by China Machinery Industry Federation

## Since 2018

Intercontinental operation based on the “Sophisticated Manufacturing System”

- In 2019, the Company completed the construction and upgrading of the production lines in North America and was listed on the Hong Kong Stock Exchange
- In 2020, the Company completed the construction and upgrading of the production lines in Europe
- In 2021, the Company made arrangements for the lightweight van body business; and was listed on the ChiNext Market of the Shenzhen Stock Exchange
- In 2021, the Company established six major businesses or groups to remove barriers in

## Our Six Major Businesses or Groups



### Qiangguan Business Group

- Integrate the tank business of dry bulk tank trailer, liquid tank trailer, concrete mixer truck and other core enterprises to form a powerful tank truck brand of CIMC
- Advance the "Qiangguan Strategic Development Plan", optimize the capacity, promote organizational development and develop businesses in market segments, so as to redress the imbalance between supply and demand

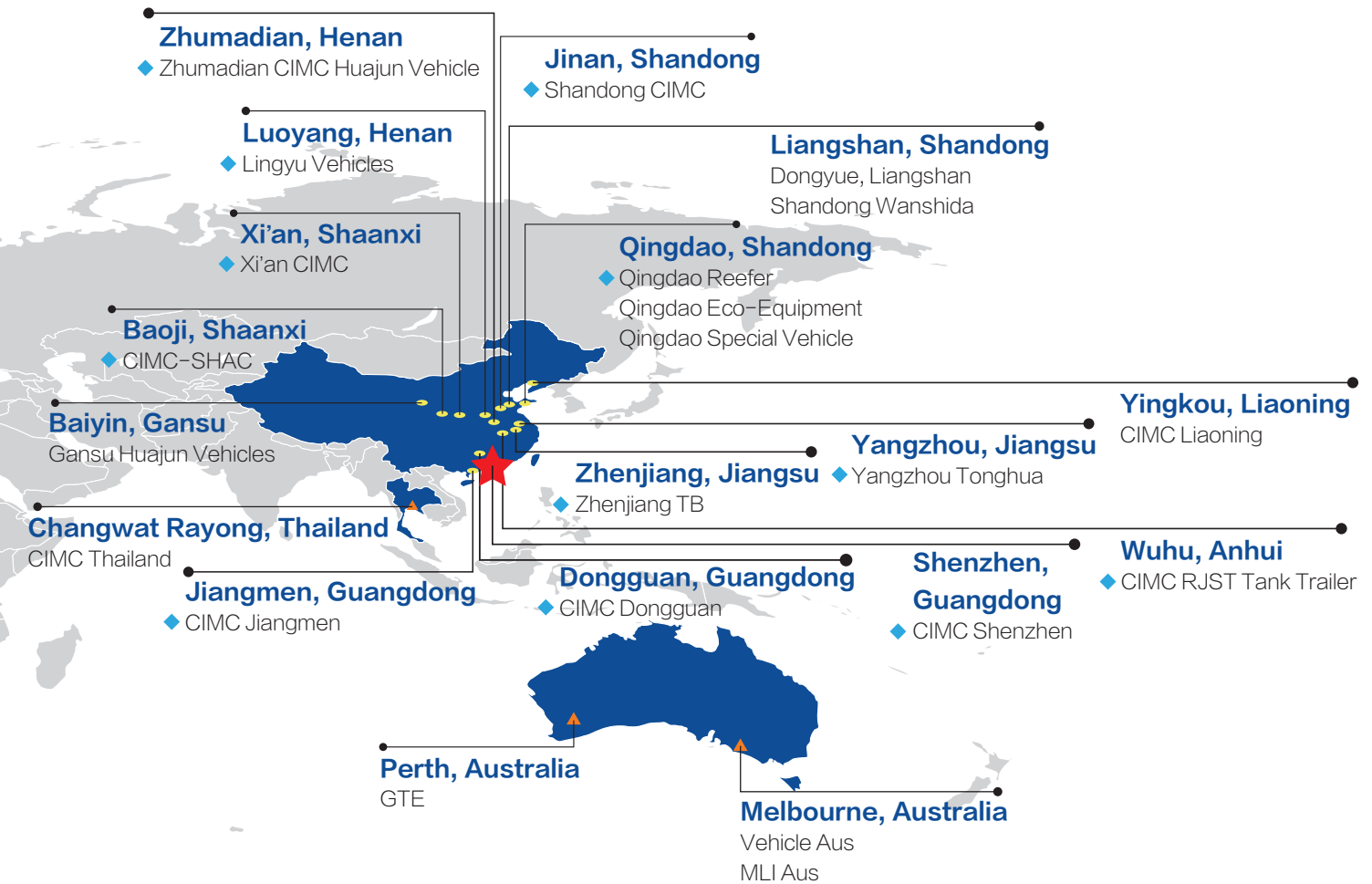
### Light Tower Pioneer Business

- Integrate the resources of "Light Tower" plants in China, so as to build a closed-loop of operation of LTS and LoM
- Consolidate the strong foundation of semi-trailer business in internal circulation

### TB Business Group

- Coordinate comprehensive truck body businesses, such as dry and refrigerated truck body businesses, with the powerful "TB" brand
- Gradually expand the sales network abroad, with production bases in East China and South China

- ★ Headquarters
- Production plant
- ▲ Assembly plant
- ◆ Light Tower plant



**Urban dump truck business**

- CIMC Vehicles actively launches new-energy, intelligent and environmentally-friendly urban dump truck products to expand the leading edge of its products and businesses
- Integrate operations of various brands and actively develops with tractor manufacturers

**North American business**

- Coordinate the operation of multiple maritime skeleton trailer, van trailer and refrigerated trailer brands in North America
- Integrate the advantages of global distribution logistics, and have an overall grasp of resources and businesses of CIMC Vehicles for production and manufacturing in North America

**European business**

- Integrate the brands of CIMC Vehicles in Europe to coordinate the production, manufacturing and sales resources in Europe and stabilize the external circulation foundation of CIMC vehicles

Awards and Honours



“Pioneering Enterprise in Corporate Governance Responsibility in 2021” Award

IFNEWS



Most Valuable Brand Award of the Year

Gelonghui



Most Valuable Industrial Manufacturing Company

Zhitongcaijing.com



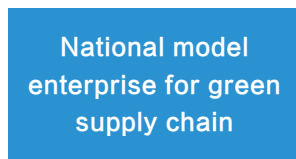
CIMC-SHAC (Xi'an) Special Vehicles Co., Ltd.  
Zhumadian CIMC Huajun Vehicle Co., Ltd.

Wuhu CIMC Ruijiang Automobile Co., Ltd.  
Dongguan CIMC Special Vehicle Co., Ltd.

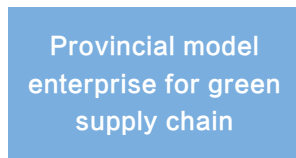


Yangzhou CIMC Tong Hua Special Vehicles Co., Ltd.

Gansu CIMC Huajun Vehicles Co., Ltd.



Wuhu CIMC Ruijiang Automobile Co., Ltd.




Zhumadian CIMC Huajun Vehicle Co., Ltd.



Awards and honours of the Group and subsidiaries are listed separately:

Winner	Honor	Awarding Organization
CIMC Vehicles	“Pioneering Enterprise in Corporate Governance Responsibility in 2021” Award	IFNEWS (格隆汇)
CIMC Vehicles	Most Valuable Brand Award of the Year	Gelonghui
CIMC Vehicles	Listed Company with the Greatest Growth Potential in the Sophisticated Manufacturing Industry	National Business Daily
CIMC Vehicles	“Best CEO” Award	National Business Daily
CIMC Vehicles	“Best Capital Market Communication Award”	RoadShowChina and Excellent IR
CIMC Vehicles	“Best Shareholder Relations Award”	RoadShowChina and Excellent IR
CIMC Vehicles	Most Valuable Industrial Manufacturing Company	Zhitongcaijing.com
CIMC Vehicles	Best IR Team Award	Zhitongcaijing.com
Yangzhou Tonghua	“Advanced Organization” by the Society of Automotive Engineers of Jiang Su	Society of Automotive Engineers of Jiang Su (江蘇省汽車工程學會)
Yangzhou Tonghua	Yangzhou’s Top 100 Industrial Enterprises of the Year	Yangzhou Municipal People’s Government
Yangzhou Tonghua	Yangzhou’s Top 10 Enterprises of the Year in Industrial Investment	Yangzhou Municipal People’s Government
Yangzhou Tonghua	Model Enterprise for Trials in Integrated Development of New-generation Information Technology and the Manufacturing Industry	Ministry of Industry and Information Technology
Yangzhou Tonghua	Green Plant in Jiangsu Province	Industry and Information Technology Department of Jiangsu
Yangzhou Tonghua	Model Workshop in Intelligent Manufacturing in Jiangsu	Industry and Information Technology Department of Jiangsu
Yangzhou Tonghua	Model Organization in Labour Security Integrity in Yangzhou	Yangzhou Municipal Human Resources and Social Security Bureau
Yangzhou Tonghua	2021 Green and Efficient Transportation Award	World Road Transport and Bus Conference
Lingyu Vehicles	Worker Pioneer	Henan Federation of Trade Unions
Lingyu Vehicles	May Day Female Model Worker in Henan Province	Henan Federation of Trade Unions
CIMC RJST Tank Trailer	Anhui Intelligent Factory and Digital Workshop	Anhui Provincial Economic and Information Department
CIMC RJST Tank Trailer	National Green Plant	Ministry of Industry and Information Technology
Gansu Huajun Vehicle (甘肅華駿車輛)	Gansu Provincial Green Plant	Department of Industry and Information Technology of Gansu Province
CIMC Jiangmen	Small Technology Giants that “Apply Special, Sophisticated Techniques to Produce Unique and Novel Products”	Ministry of Industry and Information Technology
Gansu Huajun Vehicle (甘肅華駿車輛)	Small Technology Giants that “Apply Special, Sophisticated Techniques to Produce Unique and Novel Products”	Ministry of Industry and Information Technology
Huajun Casting	Small Technology Giants that “Apply Special, Sophisticated Techniques to Produce Unique and Novel Products”	Ministry of Industry and Information Technology



# 01

## Responsibility Management and Honesty Business

The Group is committed to fulfilling its corporate social responsibility, sharing the development results with stakeholders and promoting the industrial economy, while sparing no effort to bring healthy, sustainable and stable development to the environment and society.





## Corporate Governance

We have established a kind of governance structure that designed specifically for global operations. The investments of our substantial shareholders and our business relationships with all parties also demonstrate the confidence of the community in our governance structure, which will continue to serve as a solid foundation for our sustainable growth.

The Board of the Group comprises 9 directors, including 1 executive director, 5 non-executive directors, and 3 independent non-executive directors. All directors offer their extensive business experience, deep knowledge and professional management for the efficient operation of the Board. Meanwhile, four special committees are established under the Board, namely the Audit Committee, the Remuneration Committee, the Nomination Committee and the Strategy and Investment Committee, all of which actively perform their duties to safeguard the interests of the Group and medium and small shareholders. From January 1, 2021 to December 31, 2021, the Board held 16 meetings, the Audit Committee held 11 meetings, the Remuneration Committee held 3 meetings, the Nomination Committee held 5 meetings and the Strategy and Investment Committee held 3 meetings.

## Information Disclosure

In 2021  
**138** announcements on A  
 Shares disclosed  
**156** announcements on H  
 Shares disclosed  
 A total of **294**  
 announcements disclosed  
 during the year



## Investor Relations

As of December 31,  
 2021  
 Participated in more than  
**200** roadshows by the  
 team  
 Participated in **7** strategy  
 meetings organized by  
 Chinese brokerages  
 Participated in **1** overseas  
 investment bank strategy  
 meeting



In 2021, the Company's investor relations team actively communicated with investors. As at December 31, 2021, the team participated in more than **200** roadshows, with a combination of on-site visits and online roadshows, as well as **7** strategy meetings organized by Chinese brokerages and **1** overseas investment bank strategy meeting.

In addition, the investor relations team proactively maintained high-frequency contact with specific investors and carried out more than **100** one-to-one visits; actively gave receptions for **15** reverse researches conducted by investors and analysts; communicated with a total of over **400** investors to proactively publicize the Company's operating conditions, financial highlights and future strategies externally. In 2021, the Company held **2** open day activities. In the international capital market, the investment value of the Company is also recognized by first-class institutional investors at home and abroad.

Meanwhile, the Company attaches great importance to communication with individual investors. During the year, the Company actively answered **164** questions from investors on Hudongyi (互动易) in a timely and accurate manner, with a response rate of **100%**; and received nearly **400** calls from investors, and had an unblocked mail communication channel for investor relations.

## Honesty and Integrity in Operations

### Internal Control

The Group has continuously regulated the corporate governance structure and the supervision of decision making and management in accordance with the Basic Standard for Internal Control of Enterprises and the supporting guidelines and other relevant provisions jointly issued by five authorities and commissions, including the Ministry of Finance of the People's Republic of China and China Securities Regulatory Commission. In addition, the Group enhanced its organisational structure, specified the responsibilities and authorities of the Board, the Supervisory Committee, and the management and improved the internal control and risk management system framework. The Group ensures legal compliance of our operations, and the realization of the strategic objectives and business goals by continuously improving and optimising in five areas, namely internal environment, risk assessment, control activities, information and communication, and internal control and thereby adapting to the ever-changing external environment and internal management needs.

The Company reviewed the various systems in a comprehensive way, identified and remedied any defects after taking into account the external requirements, and reconstructed the compliance system framework. We have set up a special project team to organize and review the Company's existing management systems, and the relevant responsible departments are required to check their effectiveness and make improvement as appropriate.

During the year, through IPO, we reviewed and optimized the processes of internal control of sales, purchase and funds for 12 domestic subsidiaries and 7 overseas subsidiaries.

### Internal Audit

During the year, we completed 8 internal audits for 22 enterprises, including 6 audits of core cadres for their terms of office and 2 major investment evaluation audits.



Complete  
**8** internal audit  
projects  
Conduct internal  
audits for  
**22** enterprises

### Supervision

The Group has always adhered to the business philosophy of law-based governance & good faith. We strongly oppose commercial bribery and are committed to a level playing field. In 2021, we strictly complied with legal and regulatory requirements related to anti-bribery, extortion, fraud and money laundering and there were no significant legal cases of corruption. We will continue to carry out management and supervision work in order to fight commercial bribery through strengthening our corporate and bringing society together.

The Group strictly complied with the requirements in the Criminal Law of the People's Republic of China, the Company Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China, the Anti-Money Laundering Law of the People's Republic of China, the Interim Provisions on Banning Commercial Bribery, other laws and regulations. We continuously enhance integrity in administration based on the publicly released regulations, including the Administrative Measures of Commission for Discipline Inspection on Acceptance of Gifts and Payments by Party Members and Cadres and Employees in Business (Official) Activities and the Regulations on Supervision Work - Management Standards for Supervision Matters Assigned by External Regulatory Authorities. Pursuant to the Whistleblowing Tip-off Handling Procedures formulated by the commission for discipline inspection of CIMC, the legal internal audit department of the Company accepts real name and anonymous reports through regular monitoring and reporting channels, including the WeChat official account, mailbox, telephone, letter and interview, among others. The Group carefully investigates complaints about violations received to determine the existence of the violations, holds delinquent employees liable, and maintains a "zero-tolerance" attitude towards fraud.

The Company classifies the reports into material reports and general reports based on their nature and impact:

#### Material report

A report involving core cadres of CIMC Vehicles or involving other employees but resulting in material risks to and a material impact on CIMC Vehicles. Any material report should be submitted to the President of CIMC Vehicles for case approval. Any report involving employees other than core cadres in the headquarters of CIMC Vehicles should be subject to case approval by the head of the internal audit and control department. The internal audit and control department establishes a case investigation team to initiate the investigation procedure.

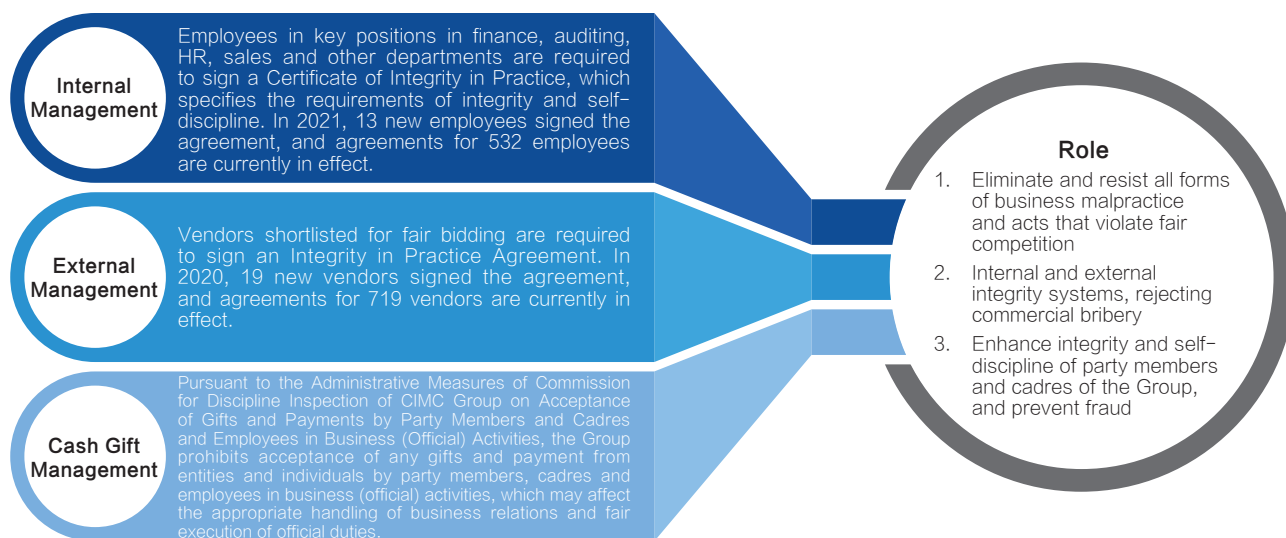
#### General report

A report other than a material report.

In treating a report, the internal control organization of the Group keeps confidential the name, the report and other matters required by the reporter to be kept confidential. Relevant personnel with knowledge of the matter shall assume management or legal liabilities for their violation of the provision, depending on the seriousness of the case. The report, evidence, records of the report and other important documents should not be directly delivered to suspected departments or relevant persons, so as to prevent the leakage and retaliation against the reporter. Persons who retaliate against the reporter will be held administratively, economically and legally liable.

In 2021, the Group did not provide anti-corruption training for its Directors and employees. In the future, we will continuously strengthen our internal anti-corruption management and gradually expand it to cover the Board.

By practising the concepts through the following measures, we continuously strengthen the integrity management of enterprises and jointly build a clean environment against corruption and bribery.



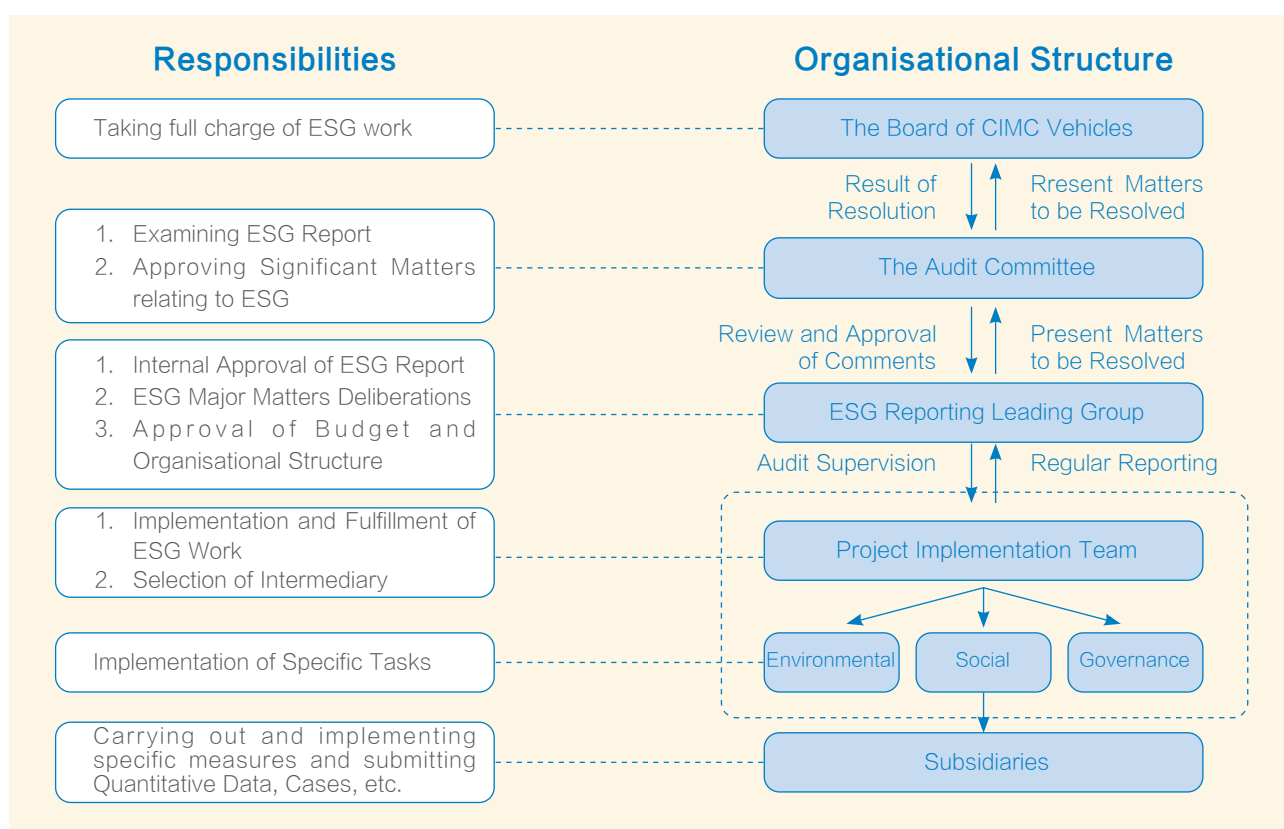
#### Certain integrity supervision and reporting channels

WeChat official account	E-mail	Tel
“CIMC Supervision”	5198@cimc.com/ audit_vehicle@cimc.com	0755-26802869

During the Reporting Period, the Company was not aware of any violation of laws and regulations in relation to the prevention of bribery, extortion, fraud, corruption and money laundering that have a significant impact on the Company.

## Corporate Social Responsibility Management

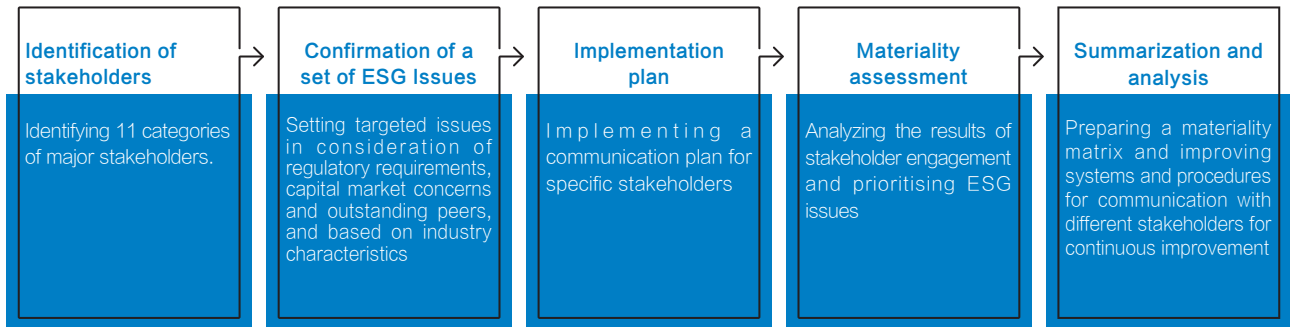
The Group has been committed to continuously expanding its business in the global market under the management philosophy of “Intercontinental Operation, Local Manufacturing”, creating sustainable synergies in design, supply chain, manufacturing and sales among the global subsidiaries of CIMC Vehicles. In the course of our business development and management, we are committed to putting sustainable development at the forefront and actively contributing to society and environmental protection. The Group has established an ESG Organisational Structure in which the Board leads the Audit Committee, the ESG Reporting Leading Group and the Project Implementation Team to formulate the Group-wide ESG strategy and oversee the implementation of ESG initiatives by each subsidiary in accordance with the strategic direction set by the Board. Each group within the ESG Organisational Structure meets regularly to report on the progress of ESG work and review the effectiveness of the said system. The ESG governance structure of the Group is set forth in the chart below.



ESG Organisational Structure

## Stakeholder Engagement

The Group attaches great importance to the valuable opinions of its stakeholders, and actively engages in two-way interaction through various communication channels and platforms to understand their expectations of the Group, which provides a strong basis for formulating and adjusting our sustainable development strategies and objectives. In addition to regular communications, the Group also conducts stakeholder engagement research projects in the preparation of the Report. We engage third-party professional agencies to communicate with internal and external stakeholders to understand their assessments and opinions of the Group’s sustainability performance and their expectations for the Group’s future work. Their feedbacks help us to assess the importance of different sustainability issues to our stakeholders so that we can make more relevant disclosures in the Report.



### Identification of Stakeholders

We have identified 11 categories of major stakeholders of the Group, namely management team, employees, government and regulatory agencies, investment organizations/shareholders, suppliers/contractors/service contractors, customers, research institutions, media, industry associations, communities and public service organisations. We set targeted ESG issues, based on the actual situation of the Group and the characteristics of the industry, in consideration of regulatory requirements, capital market concerns and outstanding peers.

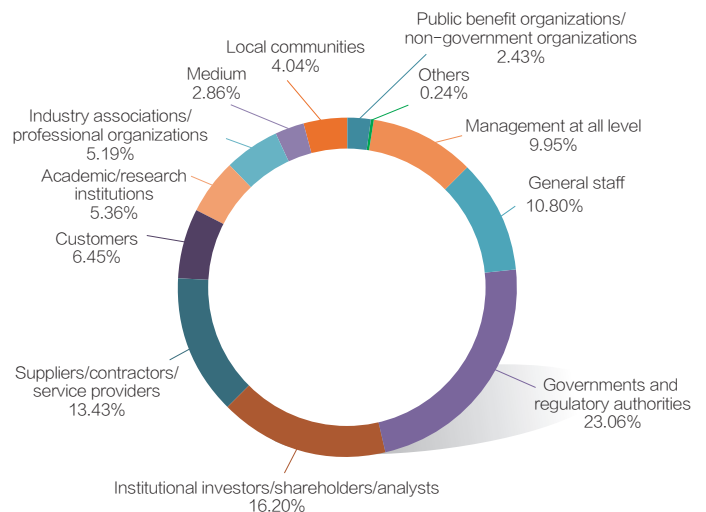
### Confirmation of a Set of ESG Issues

In the process, we analyzed and determined the communication topics targeted at specific stakeholders, finally identified four major categories of topics, namely market, environment, society and corporate governance. Through summarization and refinement, the Group increased the 31 major ESG issues in 2020 to 35 issues, by adding four new issues “rural revitalization”, “responsible supply chain”, “intellectual property protection” and “responsible marketing”, thus forming a set of issues for the year.

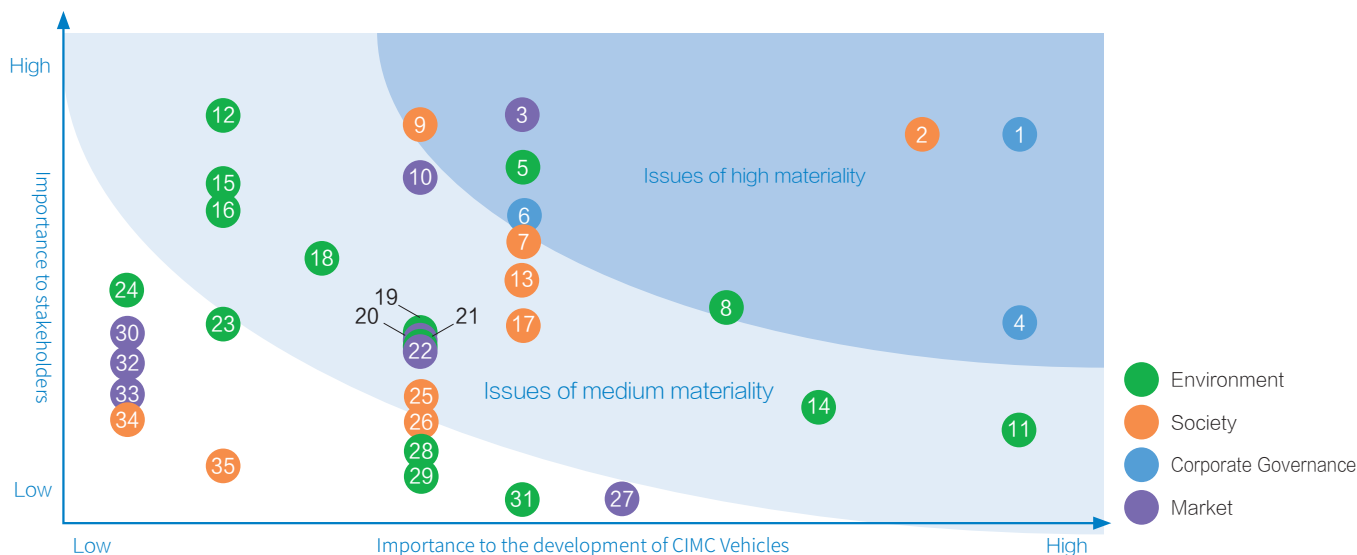
In prioritising topics, we invited internal stakeholders to consider the impact of topics on business success, and external stakeholders to consider the extent to which topics are important for sustainable development. We used a uniform questionnaire to ensure systematic and consistent assessment of key topics. In addition to this, we engaged third-party professional agencies to conduct one-on-one interviews and panel discussions with key stakeholders so that they can effectively voice their opinions in the process.

### Materiality Assessment and Matrix

With reference to ISO26000 “Guidance on Social Responsibility”, GRI Standards and ESG Guide, the Group conducted a comprehensive assessment of the importance of the identified sustainable development topics through stakeholder survey, analysis and prioritisation of topics in two dimensions, namely “importance to corporate development” and “importance to stakeholders”. In addition, we categorised the topics into three levels, namely lower importance, medium importance and higher importance to identify the materiality of each ESG topics. During the Reporting Period, the Group received a total of 5,919 valid questionnaires from 11 groups and other persons. Based on the findings of the survey and a comprehensive consideration of the situation of peer companies, this year’s materiality assessment matrix was formed, which serves as the basis for the disclosure of the contents of the Report and the guiding direction for the future development of sustainable development management.



Materiality Matrix of ESG Issues of CIMC Vehicles in 2021



Area	Issue	Ranking	Degree of Materiality	Change in Ranking	Ranking in 2020
Governance	Formulation and implementation of sustainable development strategies	1	High	↑ 8	9
Society	Employee safety and health	2	High	↑ 9	11
Market	Product quality and safety	3	High	↑ 28	31
Governance	Compliant operation and risk control	4	High	↓ 3	1
Environment	Energy Conservation and consumption reduction	5	High	↑ 1	6
Governance	Honesty and integrity in operations	6	High	↑ 1	7
Society	Employment risk response mechanism	7	High	↑ 10	17
Environment	Reduction in vehicle energy consumption and use of materials	8	High	↓ 4	4
Environment	Air pollutant emission management	9	High	↓ 4	5
Society	Employee diversity and protection of their rights and interests	10	Medium	↑ 18	28
Market	Digital transformation	11	Medium	↑ 1	12
Environment	Sewage treatment	12	Medium	↑ 18	30
Society	Reduction in the impact of operations on communities	13	Medium	↑ 1	14
Society	Decent remuneration for employees	14	Medium	↓ 4	10
Environment	Risks and opportunities of climate change	15	Medium	→	15
Environment	Greenhouse gas emissions (carbon dioxide, methane, etc.)	16	Medium	↓ 1	15
Society	Employee training and team building	17	Medium	↑ 7	24

Area	Issue	Ranking	Degree of Materiality	Change in Ranking	Ranking in 2020
Environment	Noise management	18	Medium	↓ 2	16
Environment	Clean and environment-friendly production technology	19	Medium	↓ 26	4
Environment	Water resources consumption and water conservation	20	Medium	→	20
Market	Customer service improvement	21	Medium	↑ 5	26
Market	Participation in/promotion of road safety management	22	Medium	↑ 13	21
Environment	Enhancement of environmental awareness and brand publicity	23	Low	↓ 19	13
Environment	Ecological environment and biodiversity conservation	24	Low	↓ 5	19
Society	Localized operation	25	Low	↑ 4	18
Society	Rural revitalization	26	Low	New issue	/
Market	Research and development and innovation	27	Low	↓ 15	12
Society	Responsible supply chain	28	Low	New issue	/
Environment	Green supply chain	29	Low	↓ 21	8
Market	Protection of intellectual property rights	30	Low	New issue	/
Environment	Waste management	31	Low	↓ 29	2
Market	Responsible marketing	32	Low	New issue	/
Market	Customer privacy protection	33	Low	↓ 4	29
Society	Employee communication and complaint mechanism	34	Low	↓ 7	27
Society	Public welfare activities	35	Low	↓ 21	14

After the management of the Group reviewed the assessment results, it was found that during the year, there was a certain improvement in the rankings of certain issues, including product quality and safety, employee diversity and protection of their rights and interests, sewage treatment, employment risk response mechanism, and employee safety and health. Among the nine key issues of most concern to stakeholders during the year, distribution of issues in environment, society, governance and market were relatively balanced, indicating that stakeholders' concern on the ESG issues of the Group is gradually expanded from environment in 2020 to other areas, thus showing the gradual expansion of their concern on the Group's ESG issues.

02



## Environmental Protection and Green Manufacturing

The Group has always been committed to creating a resource-saving and environmentally-friendly enterprise. We pay attention to green management in the production of vehicles.





### Performance Data

Number of national green plants: **4**

Number of provincial green plants: **2**

Number of national model enterprises for green supply chain: **1**

Number of provincial model enterprises for green supply chain: **1**

Number of enterprises passing ISO14001 environmental management system certification: **15**

Number of enterprises passing ISO50001 energy management system certification: **3**

Number of enterprises passing clean production audit: **6**

Investment of RMB **49.342** million in environmental protection in 2021



## Responsible Manufacturing, Environment Protection First

### Environmental Management System

CCIMC Vehicles practice the green philosophy. With the aim of joint development of economic and environmental benefits, while developing its business, it thoroughly implements the philosophy of energy conservation and environmental protection, and adopts various measures to continuously pursue clean, efficient, green and intelligent development. CIMC Vehicles has a dedicated environmental management department to supervise and monitor the environmental protection work of the Group, and actively promotes the enterprises to continuously improve their environmental management levels and environmental management systems.

In implementing new, alteration and addition projects, the Group will assess the environmental risks that may arise from the projects, formulate targeted pollutant treatment plans, and prepare environmental impact assessment reports in accordance with the requirements of the Environmental Protection Law of the People's Republic of China, etc. All subsidiaries regularly carry out environmental monitoring in accordance with the requirements of the sewage discharge permit, and the pollutant discharge and testing results of all plants in 2021 meet the requirements of laws and regulations and relevant emission standards.

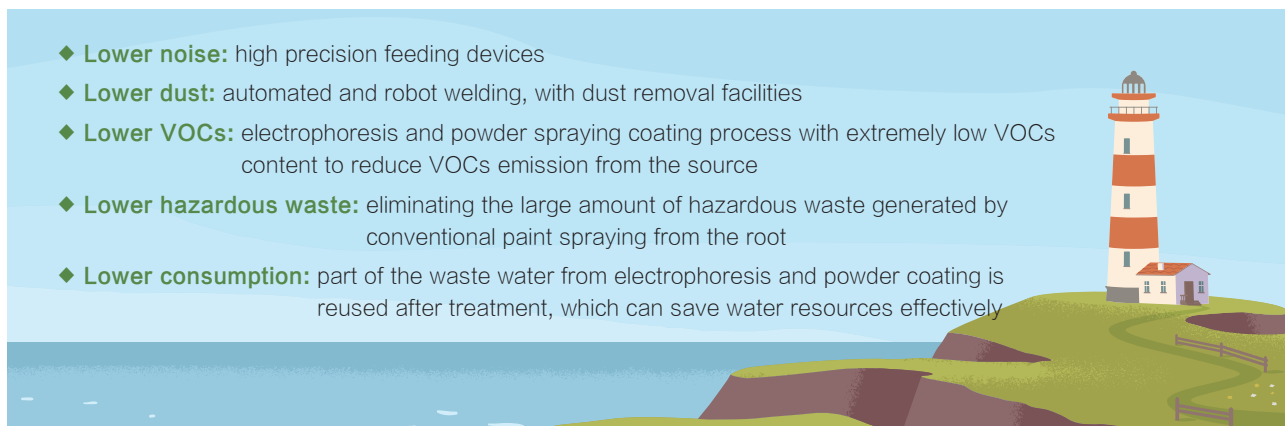
### Green Manufacturing

As an inseparable and important section in the overall operation of an enterprise, the theory of green manufacturing is embedded into the corporate development strategy, which continuously creates values for stakeholders. Through such theory, the corporate could achieve a shared and win-win value.

### Green Manufacturing - "Light Tower" Plants

Improvement of "Light Tower" plants is one of the four cornerstones to establish the sophisticated semi-trailers manufacturing system. "Light Tower" is the guiding light for marine voyage, which guides the way forward. In this regard, "Light Tower" plants will also establish a benchmark for the sustainable development of enterprises and lead us to the unlimited possibilities in the future. After careful review on wastes emission and characteristics of resources and energy consumption of all business segments, the Group determined that "Light Tower" plants shall have the following environmentally-friendly features:

- ◆ **Lower noise:** high precision feeding devices
- ◆ **Lower dust:** automated and robot welding, with dust removal facilities
- ◆ **Lower VOCs:** electrophoresis and powder spraying coating process with extremely low VOCs content to reduce VOCs emission from the source
- ◆ **Lower hazardous waste:** eliminating the large amount of hazardous waste generated by conventional paint spraying from the root
- ◆ **Lower consumption:** part of the waste water from electrophoresis and powder coating is reused after treatment, which can save water resources effectively



The Group addresses the pain points of high pollution and high energy consumption of traditional specialty vehicle manufacturers in the industry, by replacing the traditional processes with laser cutting, robot welding, electrophoresis and powder spraying, thus reducing the pollutant emission and energy consumption in production and improving the production environment.

Improvement of "Light Tower" plants is one of the cornerstones for building a sophisticated manufacturing system for semi-trailers. Since the completion of the Group's first "Light Tower" plant, Dongguan CIMC Special Vehicle, the Group has owned 13 "Light Tower" plants for semi-trailer production, 7 "Light Tower" plants for production of specialty vehicles truck bodies and 2 "Light Tower" plants for production of light van truck bodies.

“Light Tower” plants  
for semi-trailer  
production

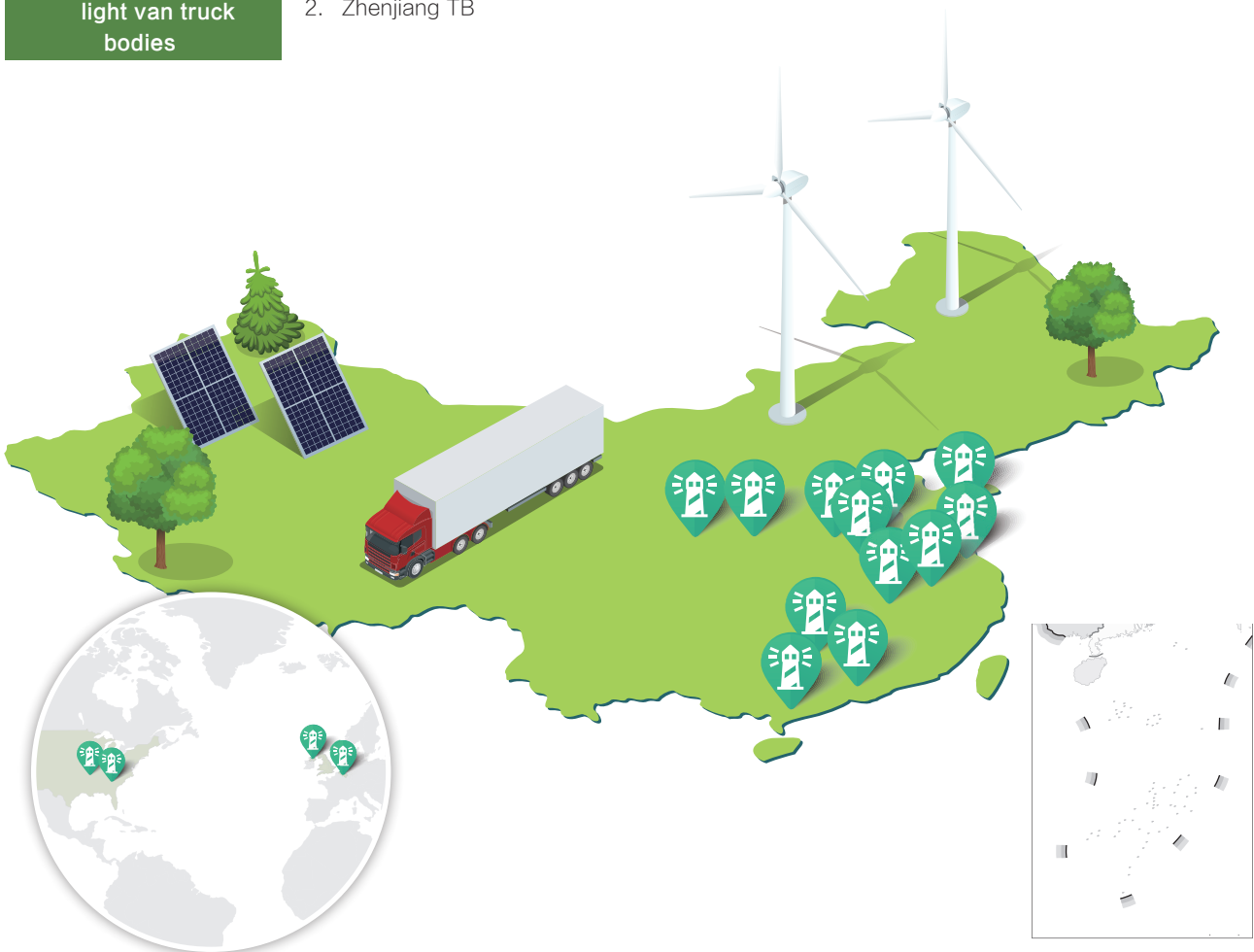
- |                                  |                    |                    |          |
|----------------------------------|--------------------|--------------------|----------|
| 1. CIMC Shenzhen                 | 5. Yangzhou        | 9. Vanguard (莫嫩)   | 11. SDC  |
| 2. Dongguan CIMC Special Vehicle | 6. Tonghua         | 10. Vanguard (特倫頓) | 12. LAG  |
| 3. CIMC Jiangmen                 | 7. Lingyu Vehicles |                    | 13. CRTI |
| 4. CIMC RJST Tank Trailer        | 8. CIMC Huajun     |                    |          |
|                                  | 8. Qingdao Reefer  |                    |          |

“Light Tower” plants  
for production of  
specialty vehicles  
truck bodies

- |                           |                    |                 |
|---------------------------|--------------------|-----------------|
| 1. CIMC Shenzhen          | 4. Lingyu Vehicles | 6. Xi'an CIMC   |
| 2. CIMC Jiangmen          | 5. CIMC Huajun     | 7. Shaanxi CIMC |
| 3. CIMC RJST Tank Trailer |                    |                 |

“Light Tower” plants  
for production of  
light van truck  
bodies

1. Shandong CIMC
2. Zhenjiang TB



After years of unremitting efforts, the Group has gradually perfected its overall environmental protection performance. Not only did our plants meet the environmental protection requirements in the places where they operate, but also many of our subsidiaries successively won the title of “National Green Plant”. In 2021, the Group added one national green plant and two provincial green plants.

**National green plant:**  
Wuhu CIMC Ruijiang Automobile  
Co., Ltd.

**Green Performance:**

The Company established a sound management system (covering quality, occupational health and safety and environment). The Company carried out digital transformation, and made remarkable achievements in energy conservation, consumption reduction, safety, environmental protection, production management, through the application of digital technology. There was a reduction of 9% in water consumption per vehicle, decrease of 25% in gas consumption per vehicle and decline of 15% in electricity consumption per vehicle; all wastewater discharged reached the standard;

**Green plant in Jiangsu:**  
Yangzhou CIMC Tong Hua  
Special Vehicles Co., Ltd.

**Green Performance:**

Yangzhou Tonghua actively promoted the production efficiency and energy consumption improvement of new production lines. The KTL coating line achieved the designed production capacity of 80 units per shift. The average energy consumption was reduced by 28.7% through various means such as optimizing the sanding parameters, increasing the proportion of fast channels, and improving the cleaning method, and data-driven improvement.

**Gansu green plant:**  
Gansu CIMC Huajun Vehicles  
Co., Ltd.

**Green Performance:**

Through the application of pollutant emission control technology, the Company made remarkable achievements in workshop environment improvement, pollutant emission reduction, energy conservation, environmental protection and production management. In terms of waste gas treatment, the Company achieved intelligent control and 100% harmless treatment of hazardous waste.

## Setting Clear Goals and Defining a Direction

Based on the Group’s business characteristics and the results of materiality assessment, we focus on the management of saving of truck body materials and air pollutant emissions in production. The Group strictly complies with the national environmental protection policies and pays close attention to the national environmental protection trend. In consideration of its focus on technological innovation and application, and saving of consumables in vehicle production, the Group has successively launched a series of lightweight products, which significantly supports the stable development of the Group and the consolidation of its industry position. Therefore, the Group also attaches great importance to the continuous development of light-weight products and continuous technological innovation in the future. The Group will continue to vigorously promote the design, research and development, production and promotion of lightweight products in order to promote the more sustainable development of the industry. The main air pollutant emissions of the Group are volatile organic compounds mainly from the coating process of vehicle production. Subject to strict compliance with national regulations on air pollutant emission management and ensuring the sustainable production of products, the Group maintains and ensures the stable operation of air pollutant treatment equipment. The Group also continuously monitors market dynamics to ensure the update of air pollutant treatment equipment and technology and the continuous improvement of the treatment level. The Group continuously implements the philosophy of energy conservation, consumption reduction and environmental protection, and reduces emissions at source. We will always take the promotion of emission reduction and environmental protection as our long-term goal, and ultimately achieve the circular economy philosophy and stick to the road of sustainable development.



## Climate Mandate and Low-Carbon Development

Climate change is affecting the production activities and life of humans and has gradually become one of the important factors affecting sustainable human development. As an upstream specialty vehicle manufacturer, the Group actively takes measures to energetically promote the development of smart, clean and lightweight transportation vehicles in order to indirectly reduce the fossil energy consumption and pollutant discharges, based on greenhouse gas and other air pollutants from fossil energy consumption by specialty vehicles during road driving. With its sophisticated manufacturing system as well as management advantages and foresight of “Light Tower” plants, the Group has energetically developed green and innovative products, which is widely praised in the market. This section focuses on the green management system and green products.

### Green and Low-carbon Products

The Group is committed to providing environment-friendly products which meet the national industry standards, with full consideration of design, research and development, production, use, scrapping and other processes, so as to ultimately achieve the goals of energy conservation, consumption reduction, emission reduction, environmental protection and sustainable development.


### New Energy Products

Name of Product	Picture	Environmental-friendly Characteristics
New energy dump truck		<ol style="list-style-type: none"> <li>1. Oil-powered trucks are converted into electric trucks, for energy saving and environmental protection;</li> <li>2. The enclosed body is used to prevent fugitive dust pollution from spilling.</li> </ol>
Pure electric concrete mixer truck		The battery of the pure electric chassis is used as the power source to reduce energy consumption and operating costs of customers, without exhaust gas emissions.



### Lightweight Products

Name of Product	Picture	Environmental-friendly Characteristics
V-shaped Dump Truck		<ol style="list-style-type: none"> <li>1. The smooth outer surface reduces the dust build-up and fugitive dust pollution on the road;</li> <li>2. The structure innovation reduces the use of materials, the weight of a truck by 500 kg, and energy consumption, as compared with conventional trucks with a rectangular body;</li> <li>3. Welding and energy consumption by processing are reduced.</li> </ol>
Tonghua Series of Lightweight Rear Tipper Semi-Trailers		The vehicle is produced with parametric design and optimized structure and without redundant design, and the weight of a vehicle is reduced by more than 500Kg.
Concrete Mixer Truck		3D model rearrangement scheme is used for the new design of the tank body, frame and accessories, thus reducing the vehicle weight by 300kg. Steel and diesel consumption and exhaust emissions are reduced.

## Modular Products

Name of Product	Picture	Environmental-friendly Characteristics
Dry Bulk Tank Trailer with Special-shaped Ends		Both ends of the tank are usually semi-circular; the tank body is changed from a 4-compartment structure to a 2-compartment structure by changing the shape of the ends; the production efficiency is improved by increasing the tank body angle; the types of transport media are increased; the discharge rate is improved; the residual rate is reduced.
Vertical Dry Bulk Tank Trailer		With a vertical dry bulk tank structure, the tank body is composed of a straight cylinder and multiple inverted cones, to prevent materials from sticking to the wall or building up. The tank body is mainly made of aluminum alloy and stainless steel.
SHAC Lightweight Dry Concrete Mixer		Through the modular design, the frame welding is changed to modular assembly, and the weight of a vehicle is reduced by 400 Kg.

## Other Green Products

Name of Product	Picture	Environmental-friendly Characteristics
Sludge Dump Truck		<ol style="list-style-type: none"> <li>1. The body is fully enclosed to avoid spilling of materials;</li> <li>2. The tailgate is locked with a hydraulic lock to reduce environmental pollution caused by spilling and leaking of materials.</li> </ol>
Refrigerated Trailer		<ol style="list-style-type: none"> <li>1. Both steel and aluminum are used for the vehicle; the aluminum riveting process is adopted for manufacturing the truck body; the structure comprising aluminum alloy outer plates, interior thermoplastic plates, aluminum alloy top and bottom beams is reliable; the dead weight is approximately 1 ton, lighter than steel refrigerated bodies in China;</li> <li>2. An injected PU foaming process is adopted for thermal insulation boards of the truck body. Parts are assembled by riveting with high-performance sealing materials, while the linings are food-grade thermoplastic boards, so as to achieve excellent thermal insulation performance, environmental protection and energy conservation;</li> <li>3. The KTL and powder spraying process is adopted for steel structural members of the chassis and truck body, to achieve a graceful appearance and good anti-corrosion performance.</li> </ol>
Wing Opening Van Trailer		Wings are made of honeycomb plates featuring low density and light weight, thus reducing the vehicle weight by 200 Kg. The honeycomb structure is able to resist the impact of goods. Secondary processing of the honeycomb plates is not required after the purchase, so it is economical, convenient and environment-friendly.

### Case Research and Development of Pure Electric Mixer Trucks of Lingyu Vehicles

In response to the national call, Lingyu Vehicles comprehensively promoted the “oil-to-electricity” key project and successfully developed a pure electric concrete mixer truck. Compared with oil-powered trucks, the electricity consumption cost is approximately 50% less than the oil consumption cost. The electric concrete mixer truck features “zero” emission and low noise, thus effectively reducing the impact of its operation on the environment.



### Greenhouse Gas Emissions and Management

Greenhouse gases discharged in the production and operation activities of the Group are mainly derived from direct greenhouse gas emissions caused by the combustion of natural gas, gasoline and diesel oil, and indirect greenhouse gas emissions arising out of purchased electricity. In 2021, the total greenhouse gas emission of the Group was 187,034.92 tCO<sub>2</sub>e, with the emission intensity being 725.00 tons/RMB100 million of revenue.

Clean energy is energy that is vigorously promoted at home and abroad to replace coal power. CIMC RJST Tank Trailer, Qingdao Reefer and other subsidiaries of the Group utilized the roofs in the project to lay photovoltaic panels. In 2021, the total photovoltaic power generation of the Group was 10.26 million kWh, reducing the carbon emissions by a total of approximately 6,259 tons.



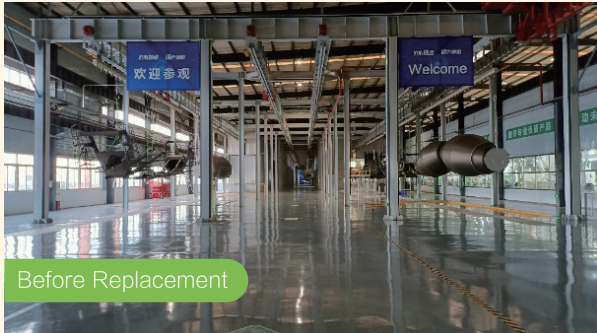
Roof Photovoltaic Power Generation

Subsidiary	Installed Capacity (MW)	Photovoltaic Power Generation ('0,000 kWh)
CIMC RJST Tank Trailer	3.6	300
Qingdao Reefer	1.66	140
Dongguan CIMC (Phase I Construction)	2.99	305
CIMC Jiangmen	1.6	200
Jiangsu Baojing	0.901	81

In addition, the photovoltaic power generation projects of the Group’s subsidiaries including Yangzhou Tonghua, CIMC Huajun and Lingyu Vehicles are expected to be put into operation for power generation successively in 2022, which will further reduce carbon emissions.

### Case Project of Lingyu Vehicles for Roof Daylighting Improvement

As the roof of the plant of Lingyu Vehicles had been used for more than 10 years, the daylighting effect of the roof is not good. The day shift operation also required lighting, which increased the electricity consumption. In view of the above, Lingyu Vehicles replaced some daylighting bands on the roofs of workshops to improve the daylighting effect, thus enhancing the workshop illumination, reducing the lighting duration and electricity consumption. The improvement is expected to save more than 70,000 kWh of electricity per year or approximately 40 tons of carbon emissions.



Before Replacement



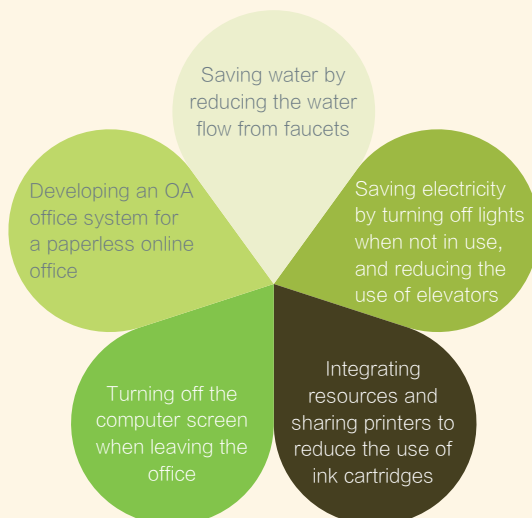
After Replacement

### Green Office and Environmental Protection Publicity

The Group vigorously promotes the philosophy of “green office and low-carbon lifestyle”. In order to further enhance the employees’ awareness of energy conservation and environmental protection and create a good corporate atmosphere, we actively carry out environmental protection publicity and organize theme activities, including putting up energy-saving slogans near switches, controlling indoor air-conditioning temperature, and recycling paper. Meanwhile, we regularly organize theme activities for environmental protection and resource conservation on Earth Day (April 22) and World Environment Day (June 5) each year.

### Case “Green Office and Energy Saving First” of CIMC RJST Tank Trailer

In order to further promote energy-saving and low-carbon lifestyle and raise the awareness of energy conservation, CIMC RJST Tank Trailer actively encouraged its employees to carry out “green office and energy saving first”, so as to practically implement the low-carbon operation, emission reduction, energy conservation and consumption reduction.





## Emissions and Pollution Reduction

### Exhaust Emission and Management

During the operation of the Group, pollutants such as volatile organic compounds, welding/cutting smoke and dust are generated from painting, welding, cutting, heating and drying in the plants. With regard to air pollutants, the Group has always complied with the laws, regulations and standards including the Law of the People's Republic of China on the Prevention and Control of Air Pollution, the Notice from the State Council on Issuance of the Action Plan for Air Pollution Prevention and Control, the Notice from the National Development and Reform Commission on Opinions of Structural Adjustment of the Automobile Industry, and the Regulations of Henan Province on Air Pollution Prevention and Control, as well as the relevant laws and regulations in overseas areas of operation of the Group, including the Clean Air Act (CAA) of the United States and the CLEAN AIR ACT (ACT) of the UK. Meanwhile, we also refer to the standards such as the Comprehensive Emission Standards for Air Pollutants (GB16297-1996), the Emission Control Standards for Volatile Organic Compounds (DB61/T1061-2017), the Ambient Air Quality Standards (GB3095-1996), the Pollution Prevention Technology Policy for Volatile Organic Compounds (VOCs), etc.

In the year, the Group's VOCs emissions were 70.81 tons with an emission intensity of 0.27 tons/RMB100 million of revenue, representing a decrease of 11.29% as compared with the previous year. The Group and its subsidiaries invested heavily in the upgrading of the coating line, thus reducing VOCs emissions at source. In the future, we will continue to control exhaust gas from coating and constantly promote the upgrading of our production lines to reduce coating gas emissions at source.

#### Case Upgrading of the Coating Line of CIMC RJST Tank Trailer for Liquid Tank Trailers

CIMC RJST Tank Trailer completed the technical transformation of the coating line for liquid tank trailers in June 2021 after completing the upgrading of the coating line for mixer trucks and dry bulk tank trailers in the early stage. Through the process transformation, the original oil paint coating was changed to the environmental-friendly automatic electrostatic powder spraying, thus reducing the generation of VOCs at source. The end-of-pipe treatment facilities were added for waste gas with VOCs, which was purified by activated carbon adsorption and catalytic combustion processes. Meanwhile, online monitoring equipment for VOCs waste gas was installed to monitor emission data in a real-time manner, and accurately obtain the exhaust gas emission concentration, temperature, flow rate and other indicators.



Powder Spraying Workshop for Liquid Tank Trailers

#### Case Project of Lingyu Vehicles for Upgrading the Welding Line for Mixer Truck Frames

The collection and purification effect of the original welding fume purifier at each station of the welding line of Lingyu Vehicles constructed in 2007 was relatively poor. In order to improve the production efficiency, automated production level and environmental protection management level, Lingyu Vehicles started to implement the "Tianqi Project" (Phase II) - upgrading and transformation project for the welding line for mixer truck frames. In the project, an automated production line was formed from robot welding equipment, automated conveyors, welding fume collectors and automated intelligent control system to replace the original manual welding line for mixer truck frames. The production line was divided into 7 areas. Welding and cutting smoke generated in production was collected in an enclosed negative pressure chamber. Each area was independently enclosed and set as a working room with different sizes and electric double doors or rolling doors at the entrance and exit to realize the flow of workpieces. The draught fans were connected to air induction pipes from the top of the workshop, which were connected to the main pipeline for welding fume treatment in the main dusting machine. The environmental protection acceptance inspection of the project was carried out in July 2021. The inspection results showed that the emission concentration of treated welding fume and waste gas was less than 5 mg/m<sup>3</sup>.



Production Area Layout of Automated Welding Line for Mixer Truck Frame

## Waste Management

The Group generates non-hazardous wastes such as paper shells, plastics, wooden pallets, steel slag, iron filings, leftovers, etc., as well as the hazardous wastes like paint buckets, paint slag, contaminants, waste mineral oil, phosphate residues, etc. in the production process. The Group strictly complies with the laws, regulations and standards, including the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes, the National List of Hazardous Waste, and the Standard for Pollution Control on Hazardous Waste Storage (GB18597-2001), as well as the relevant laws and regulations in overseas areas of operation of the Group, such as the Pollution Prevention Act (PPA) of the United States and the ENVIRONMENTAL PROTECTION ACT of the UK. The Group and its subsidiaries formulated the Solid Waste Management System, the Responsibility System for the Prevention and Control of Environmental Pollution by Hazardous Wastes and the Emergency Plan for Hazardous Solid Waste Incidents. We will add or improve waste collection and storage facilities based on changes in external management regulations and production operations.

For hazardous wastes, the Group set up specialized warehouses to store hazardous wastes and commissioned qualified third parties to dispose of properly. The hazardous waste storage warehouses were designed in strict accordance with the requirements of the Standard for Pollution Control on Hazardous Waste Storage (GB18597-2001), and passed the environmental assessment and acceptance before putting into operation. The storage facilities meet the anti-spreading, anti-loss and anti-leakage requirements. The subsidiaries of the Group set out annual plans on hazardous waste management by following the relevant national regulations and reported them to the local environmental protection authority for the record on time. The transfer and disposal of hazardous waste shall be tightly implemented in adhering to the regulations on the management of hazardous waste transfer manifests.

The hazardous waste storage warehouses are managed by specific personnel, and professional training were provided for relevant management personnel and personnel engaged in hazardous waste collection and participating in transfer and other works. The hazardous waste storage warehouses are equipped with paper hazardous waste ledgers on site and all of the entry and exit of hazardous waste are recorded through the ledgers. The type, amount, storage and transfer of hazardous wastes are truthfully recorded in the ledgers to ensure the legal disposal of hazardous wastes and prevent illegal loss.

For general wastes, the Group has entered into waste disposal contracts with sanitation companies which regularly remove domestic waste and collect recyclable solid wastes like waste paper, scrap metal and waste wood for reuse.

In the year, the Group generated 74,571.97 tons of non-hazardous waste and 2,775.73 tons of hazardous waste with an intensity of 289.06 tons/RMB100 million in revenue and 10.76 tons/RMB100 million in revenue, respectively. In the future, we will continue to strive to save resources and cut down wastes in the production process.

The total amount of nonhazardous waste generated was

**74,571.97** tons



The emission intensity was

**289.06**  
tons/RMB100 million



The total amount of hazardous waste generated was

**2,775.73** tons



The emission intensity was

**10.76**  
tons/RMB100 million



## Wastewater Management

The Group strictly abide by the environmental laws, regulations and standards, such as the Law of the PRC on Prevention and Control of Water Pollution and the Comprehensive Wastewater Discharge Standards (GB8978-1996), as well as the relevant laws and regulations in overseas areas of operation of the Group, such as the Clean Water Act (CWA) of the United States and the WATER RESOURCES ACT of the UK.

We have taken a number of sewage treatment measures to ensure that the concentration and total amount of wastewater meet the discharge standards imposed by the environmental protection authorities. Wastewater is categorised into production wastewater and domestic wastewater, whereby production wastewater is mainly the water used for paint fume absorption in the paint coating room, KTL phosphorylation washing, storage tank water pressure test as well as floor cleaning, while domestic wastewater is generated mainly from the canteens, bathrooms, and office buildings. In the year, the Group's total wastewater discharge amounted to 646,270 m<sup>3</sup>.

The Group has established the regular waste water self-monitoring system, sewage treatment facilities point-inspection system, maintenance system to ensure the stable operation of treatment facilities and make the waste water discharge up to the standard. We separate the rainwater and waste water strictly according to the regulations, and the sewage will go to waste water treatment plant for unified treatment through the sewerage network. All wastewater from our affiliated plants is discharged after proper treatment and without any excessive discharge. We actively introduced new wastewater treatment equipment and optimised our existing wastewater treatment process, and recycled wastewater after proper treatment to further reduce wastewater discharge and water consumption.

### Case Reconstruction of Sewage Treatment Station of CIMC RJST Tank Trailer

CIMC RJST Tank Trailer, a subsidiary of the Group, upgraded and renovated the sewage pretreatment station for liquid tank trailers during the year. After the improvement, the water consumption for acid washing of a vehicle decreased from **6.7** tons to **2.9** tons.



### Case Reconstruction of Phosphating Production Line by CIMC Huajun

#### Before improvement

1. Industrial wastewater was generated from rinsing after phosphating.
2. Daily operation observation showed that dosing (of hazardous chemicals such as hydrochloric acid) for phosphating was frequent and subject to uncontrollable factors, and therefore the safety risk coefficient was high.
3. Natural gas is required to be used for drying after the rinsing, thus increasing energy consumption.

#### After improvement

The process flow is optimized by cancelling the phosphating process, establishing a shot blasting chamber, changing workpiece phosphating to shot and sand blasting, thus reducing the generation of wastewater, the use of hazardous chemicals and natural gas, and the generation of hazardous wastes. After completion of the reconstruction, no wastewater is generated.



The phosphating production line was changed to the shot and sand blasting line by CIMC Huajun

## Noise Management

The Group strictly complies with the relevant domestic regulations and standards for noise pollution control, such as the Law of the PRC on the Prevention and Control of Ambient Noise Pollution and the Emission Standard for Industrial Enterprises Noise at Boundary (GB12348-2008), as well as the relevant laws and regulations in overseas areas of operation of the Group, such as the Noise Control Act of the United States and the ENVIRONMENTAL ACT of the UK. We have taken a series of noise pollution control measures: We have tried to avoid noise-sensitive areas such as the residential areas and schools when selecting sites for our plants. When designing the general layout of our plants, the layout of the workshop is based on the noise intensity, hence workshops with high noise intensity have been arranged separately from the non-noise workshops and the low noise workshops. In precondition of satisfying process requirements, we placed highly noisy equipment together and tried to reduce the noise with measures such as vibration reduction at the equipment base, thereby we have taken measures to reduce noise and vibration from the air compressors. When purchasing equipment, we preferred the equipment which generates relatively less noise, and for certain equipment generating loud noise, we demanded the manufacturers to provide supporting noise reduction facilities such as sound insulation hoods or mufflers. During the course of our production, as noises are generated from such processes as welding, air cutting, grinding, sanding, dust blowing, etc., we will further reduce noise through upgrading and transformation of equipment and facilities.

The Group's subsidiaries entrusted qualified third-party institutions to carry out noise evaluation regularly so as to ensure that the environmental noise in their plants complied with the requirements of the Environmental Noise Emission Standards for the Plants of Industrial Enterprises regardless of day or night. In the future, the Group will try to speed up the upgrading of our production lines and further reduce noise by improving the automation and intelligence of material transportation and mechanical processing, as well as increasing the number of new energy powered facilities such as the forklifts.





## Conserving Resources and Increasing Energy Efficiency

### Water Resources Management


The Group is in strict compliance with the Water Law of the People's Republic of China, the Implementing Measures for Water-taking Licensing System, the Water Pollution Prevention and Control Law of the People's Republic of China, the Action Plan for Prevention and Control of Water Pollution, and the relevant laws and regulations in overseas areas of operation of the Group, including the Clean Water Act (CWA) of the United States and the WATER RESOURCES ACT of the UK, in terms of wastewater discharge and management. The Group's water consumption mainly includes water pressure test, washing, and greening. During the year, the total water consumption of the Group was 1,343,720 m<sup>3</sup>, and the consumption intensity was 5,210 m<sup>3</sup>/RMB100 million of revenue. The water resources used by the Group and its subsidiaries come from the municipal pipeline network, and no issues have occurred in obtaining suitable water sources.

The Group formulates water management regulations to ensure the daily water consumption of the production system and offices, reduce water waste, standardize the Group's water use, and achieve the goal of water conservation. The inspection team of the relevant departments is responsible for weekly inspections of the water consumption for both production and daily living purposes, promptly propose corrective measures, or report and assess violations of departments or individuals. Meanwhile, we encourage employees to propose improvement ideas for saving water and energy consumption at the production site, and after being reviewed and confirmed to be feasible by the Group's relevant improvement mechanism, corresponding rewards will be given.

When production conditions permit, the Group adopts the method of recycling production wastewater and domestic sewage to indirectly reduce the consumption of fresh water.

### Energy Conservation and Consumption Reduction

The Group strictly complies with the Energy Law of the People's Republic of China, the Energy Conservation Law of the People's Republic of China, the Energy Policy Act and the Energy Protection Law, and the relevant laws and regulations in overseas areas of operation of the Group, including the Energy Policy Act of the United States. Under the guidance of Energy Management Systems - Requirements with Guidance for Use (GB/T 23331-2020) and Energy Management Systems (ISO50001-2018), we have established and operated an energy management system that conforms to the characteristics of the Group. The Group has continuously improved the effectiveness of its energy management system through routine energy-saving monitoring, energy audits, energy efficiency benchmarking, internal audits, organisation of energy consumption measurement and testing, energy balance, management review, self-evaluation, energy-saving technological transformation, and energy-saving assessments, to fulfill energy management policies and commitments, and reach the expected targets of energy consumption or use. We have always put energy conservation in an important position, use energy in a responsible manner, and build a resource-saving enterprise by continuously improving energy efficiency and increasing use of new energy. The energy required for the operation of the Group mainly includes electric power for daily operation, natural gas for heating the drying room, and diesel for forklift driving. During the year, the Group's total energy consumption amounted to 50,006.09 tons of standard coal, with a comprehensive energy consumption intensity of 193.84 tons of standard coal/RMB100 million of revenue.

A blue robotic arm is shown holding a globe. The background is filled with various digital data overlays, including charts, graphs, and icons. In the foreground, there is a stylized landscape with green hills, trees, and a white truck with an orange cab and a white trailer. The letters 'O' and 'B' are prominently displayed in a large, teal, sans-serif font, partially overlapping the robotic arm and the landscape.

# O B

## Intelligent Products, Leading the Industry

The Group is engaged in the manufacture, sale and after-sales services for seven major categories of semi-trailers in major markets in the world. In the Chinese market, the Group is a competitive and innovative manufacturer of truck bodies for specialty vehicles as well as a manufacturer of lightweight van bodies.

The Group has built a brand-new high-end manufacturing information system, driven by technology, supported by an information platform, and led by high-end manufacturing products, to create value for customers and provide new development impetus for the Company's business.



- /Administration
- /Human Resources
- /Legal
- /Accounting
- /Finance
- /Marketing
- /Publicity
- /Promotion
- /Research
- /Business
- /Development
- /Engineering
- /Manufacturing
- /Planning





## Quality Commitment and Comprehensive Assurance

With the establishment of a sophisticated manufacturing system as the focus, the Group has integrated product lifecycle management (PLM) and customer relationship management (CRM) and other information management systems into one, and established the linkage between smart manufacturing and the information platform, covering all processes from product development that caters to market needs to design, logistics procurement, manufacturing, customer management, and product sales, which guarantees the correct input of market information for product development and design of the Group, the standardization of manufacturing quality after product development, the streamlining of procurement of raw materials and parts, the intelligentization of production and manufacturing management, as well as the informationization and intelligentization of cost accounting, quotation, customer management, and sales management. During the year, the number of products recalled for safety and health reasons as a percentage of the total number of products sold or shipped by the Group was 0, and the product recall rate was 0.0445%.

### Product design

The Group has established a three dimensional model. Through finite element analysis, theoretical verification is carried out at the early stage of product design to improve the design and ensure product safety.

### Product manufacturing

Quality inspections are carried out in accordance with the Group's quality standards and each technological process, such as carrying out on-site employee self inspections, supervisor offline inspect ion, manufacturing process inspection, combining quality control inspections and quality control checkpoints as well as 100% inspection on key quality characteristics that affect the safety and performance of entire vehicles.

## Full Product Life Cycle Quality Assurance

### New product development

The Group always regards health and safety as the core of product responsibility, and carries out component and part tests and whole vehicle static load tests in accordance with the "New Product Development Process", as well as road tests for the reliability of sample vehicles and various strength inspection tests prescribed by national standards.

### Product delivery

In addition to providing the product's operation manual and maintenance manual, the Group also provides product aftersales services through regular return visits and 24-hour service calls to timely solve the difficulties and problems encountered by the customer.



## Driving the Industrial Upgrading with Technological Innovation

“Unlimited Innovation” is one of the core values of the Group, and it is also the way for the Group to survive and develop. For a long time, the Group has been continuously improving and optimising the innovation mechanism and building an innovation culture. Upholding the “technology-driven” development idea, the Group has further promoted the research and development of new products, new technologies, new processes and new equipment, with a view to driving the technological progress and value enhancement of the entire industry, promoting the sustainable development of the Company. Especially in recent years, along with accelerated internationalization of the specialty vehicle industry, the Group has increased its R&D investment in advanced technologies globally, as well as the introduction and incubation of advanced R&D methods and manufacturing technologies to continuously improve the Company’s independent innovation capabilities and core competitiveness. Meanwhile, the Group is constantly improving the development, incentive and promotion mechanism for innovative achievements, and accelerating the transformation of scientific and technological achievements, building core competitiveness.

We have formulated the Measures for Management of Product Development and the Project Management Measures. Theoretical analysis, experimental verification and road testing of vehicles are carried out for the development of new products in strict accordance with the product development process, so as to ensure the integrity, preciseness and compliance of development processes of new products, and the reliability and safety of the products. Major product retrofitting also complies with the new product development process and qualification test procedures, and is subject to certification by relevant national testing institutes and announcements by the Ministry of Industry and Information Technology.

In terms of innovation incentive mechanism: Taking the CIMC Technology Innovation Incentive Measures as the main body, the Group has constructed a multi-level technological innovation incentive management system of CIMC - the vehicle industry - all member companies, to encourage engineering and technical personnel to continue to innovate from multiple angles and levels. While continuously improving the mechanism for technological innovation, achievement incentives and promotion, the Group has also enhanced the transformation efficiency of scientific and technological achievements, continuously improved its independent innovation capabilities and core competitiveness, to promote technological development.

In terms of construction of research and development systems: According to the needs of technological upgrading and industrial arrangements of the Group, the headquarters of the Group has established a technology research and development system comprising “one office (CTO office)”, “four centers (research and development center, validation center, digital center, and training center)”, the DE department and the ME department. The CTO is responsible for leading and coordinating new product development, manufacturing technology upgrading, and digitalization of manufacturing and product technologies. Currently, 13 member companies under the Group have been awarded as High and New Technology Enterprises. In addition, the Group has set up technical centres or studios in overseas branches in the United States, Germany, Belgium, the United Kingdom, Poland, Australia and Thailand. Relying on strong R&D strength, we transform leading technologies into our strong product competitive advantages.

S/N	Project Name	Types
1	New curtain-side trailer	Product technology innovation
2	Development of Exported U-shaped Rear Tipper Semi-Trailers	
3	Development and Design of Sludge Containers	
4	Development of tipper semi-trailers for bulk gains	
5	Development of SH New Standard and Intelligent Dump Trucks	
6	Intelligent Milk Tank Semi-trailer	
7	Aluminum alloy flatbed trailers	
8	Arcman1 Plate Project for Zhenjiang Plant	Innovation of Manufacturing Technology
9	Upgrading of the Frame Production Line	
10	Small Shot Blasting Line	
11	Ladder Welding Workstation	
12	Modular Double-trailer Trains	Basic Technology Research and Development

Table of Innovative Research and Development Achievements of the Group in 2021

## Main achievements of the Group in research and development in 2021 are as follows:

### New Curtain-side Trailer

According to the national environmental protection requirements, goods shall be transported in enclosed vehicles to avoid the impact on the environment in transportation. This together with the loading and unloading efficiency requirements of logistics transportation makes curtain-side trailers become the transportation vehicle model promoted by China. However, due to the complexity of domestic transportation of goods and the cost pressure, and the unsuitability of the European and American curtain-side trailers for transportation in China, it is urgent to develop a curtain-side trailer suitable for transportation in China.

At the beginning of development of the curtain-side trailer, environmental protection, energy conservation, low cost and high loading and unloading efficiency were taken as the foundation for research and development, to promote the development of the curtain-side trailer. Such product is created after four iterations of the developed curtain-side trailer.



New Curtain-side Trailer

### What sets the product apart from European and American curtain-side trailers are the followings:

- The product has strong and durable steel top plates, and domestically produced steel guide rails, which makes the product more adaptable to various transportation environments.
- Different frames. The product has a stake underframe. The sliding pillar is placed on the upper side of the side beam to increase the effective loading width of the trailer, while the sliding pillars of European and American trailers are placed on the outer side of the side beam, which reduces the effective loading width of the trailers and is not conducive to the loading of goods.
- Different sliding pillar structures. The lower end of the sliding pillar of the product has the structure of hidden rotary auxiliary support and sliding plugs. Through the raising and lowering of the auxiliary support, the steel roof can be easily supported, so that the shape of the steel roof is high in the middle and low at both ends. Meanwhile, the sliding plug of the sliding pillar has higher strength and better anti-collision performance than the wedge-shaped devices of the European and American sliding pillars.
- Strong universality and modular design. The product and the stake trailer share the same underframe, with 90% of the parts and components universal. The product and the van trailer share the same truck bodies with 60% of the parts and components universal. The truck body and the underframe can be bolted or welded, which makes it more universal.
- Low cost. The use of steel roof, steel guide rails, new sliding pillars, modular underframe, etc., makes the cost of the product far lower than that of the European and American curtain-side trailers.

## New Bulk Gain Tipper Trailers

In recent years, with the introduction of the national “Development Plan for Modern Grain Logistics”, bulk grain transportation vehicles have ushered in a new period of development, with the creation of various bulk grain transportation vehicles. The common bulk grain transportation vehicles are grain van trailers and bulk grain rear tipper trailers. The unloading devices of the grain van trailer are generally installed at the left and right sides of the lower part of the vehicle. In order to completely unload the grain, many unloading devices are installed at the left and right sides of the grain van trailer. Certain grain unloaded through the unloading devices will fall on the fenders, side-guard rails, tires and other components on both sides of the vehicle. The unloading devices of the bulk grain rear tipper trailer are installed at the rear part of the vehicle, and the body needs to be tipped for unloading. After unloading, grain will build up at the rear part of the vehicle and will fall on the rear protective device of the vehicle and the lower part of the tires. The above two unloading methods are complicated in operation. The grain cannot be completely unloaded into the storage tank. After completion of the unloading, the vehicle will run over the gain when it is driven away, such that the grain is easily mixed with impurities, causing pollution and affecting subsequent processing. In addition, the grain will also need to be manually delivered into the storage tank, resulting in high labour intensity.

With regard to the above shortcomings of the bulk grain transportation vehicles, the Group has carried out the innovative design of the tank body, frame, feed cap, unloading devices and other components of the bulk grain transportation vehicles, effectively solving problems of secondary pollution of grain and secondary manual operation.

The main features of the new bulk gain tipper trailers are as follows:

- The volume is 46 m<sup>3</sup>, and the dead load of the trailer is only 6.9 tons, which is the lightest among trailers with the same volume.
- The tank body is made of stainless steel, and the inclination angle of the lower part of the tank body is larger than the angle of repose of the grain, so as to ensure zero residue after unloading.
- The unloading opening is below the vehicle, and can be directly moved to the upper part of the storage tank to unload all the grain into the storage tank, thus reducing the pollution of the grain and without secondary manual operation.
- The unloading device is of a drawer-type structure. The upper part of the pull-out plate has a pressure-reducing support. The opening degree of the unloading opening can be adjusted. The unloading device with such structure features good tightness, easy operation and controllable unloading speed.

The new bulk gain tipper trailer is pioneering in China. The product can not only help reduce the labor intensity of operators and create higher operating value for customers, but also create greater advantages for CIMC products in light weight, environmental protection and easy operation. It is promising, with its wide use in breweries, flour mills, grain depots and other scenarios.



New Bulk Gain Tipper Trailers

### Intelligent Milk Tank Semi-Trailer

With the rapid economic development and the steady improvement of people's living standard in China, the people have an increasing demand for liquid foods such as dairy products and wine, and greater demand on safety, hygiene and quality of food, leading to the increase in the manufacturing scale of the food industry and the demand for liquid food tank trailers. At present, milk transportation remains subject to many problems:

Firstly, liquid foods such as milk usually separate into layers on standing, mainly because water-insoluble fats, protein and other substances in the liquid foods settle down. At present, most transportation of fresh milk is long-distance transportation, while there are generally 5 to 6 hours between the arrival of the transportation vehicle at the dairy and the start of unloading, which makes it common for milk to separate into layers in transportation. Due to the separation into layers, milk production enterprises either get water, fat or protein in sampling raw milk for inspection, such that the samples fail to meet the relevant standards in the inspection, causing the risk of rejection to the transportation companies or the pasture.

Secondly, milk is perishable liquid food and highly susceptible to bacteria, and therefore, the tank needs to be kept clean.

Thirdly, with the passage of time in transportation, the temperature in the tank will gradually increase, but the driver cannot check the thermometer reading in a timely manner while driving. Meanwhile, food safety is of utmost importance, thus safety should be ensured at the loading and unloading openings, which requires intelligent background monitoring.

In consideration of the above factors, only by developing a new liquid food transportation semi-trailer with mixing, cleaning and intelligent monitoring functions can the product performance and the market competitiveness be improved and the market share be expanded.

Yangzhou Tonghua has carried out three iterative upgrades of its liquid food transportation vehicles, thus creating lightweight and intelligent products. The new liquid food transportation vehicle developed by Yangzhou Tonghua features a high degree of finish in the tank, 360-degree cleaning free of blind spots, complete unloading and excellent thermal insulation properties. It is in a leading position in the industry, with its greater suitability for long-distance transportation and satisfaction of the current demand for milk production and processing in China.

Meanwhile, according to management requirements of various milk enterprises and transportation enterprises, Yangzhou Tonghua actively develops "intelligent interconnection", "image monitoring" and other functions to improve the efficiency of fleet management and the performance in driving safety monitoring. The developed intelligent safety systems include the 360-degree monitoring system, the 3D real-time image monitoring system for driving, the real-time tire pressure and temperature monitoring system, the system for real-time monitoring of the opening status of the tank top manhole and the unloading opening, and the intelligent weighing system. The design of the new product is based on modular and standardized technology, supported by information technology, customer-centered and marked by agility. Through such design, the work is carried out for building a modular, standardized and process-based sophisticated manufacturing system, by supply chain management and in consideration of manufacturing engineering.

Based on the research and development investment for the above new product, CIMC products have large advantages in terms of light weight, intelligentization, durability and cost performance, which provides ideas for the future development of the food transportation industry.



Intelligent Milk Tank Semi-Trailer

## Intelligent Aluminum Alloy Horizontal Dry Bulk Tank Trailer

With the greater national efforts to control overloading, based on the requirements of safety management, improvement of working environment and reduction of labor intensity, light weight, intelligentization and safety have become the new direction for the research and development of dry bulk tank trailers.

Yangzhou Tonghua has created an aluminum alloy horizontal dry bulk tank trailer by using advanced design and analysis methods including 3D digital-analog design and finite element analysis. The new tank body of the dry bulk tank trailer is designed with a high inclination angle. The length of the tank body is 0.7 meters shorter than the conventional aluminum alloy structure of the same volume, but the unloading speed is faster, and the unloading residual rate is extremely low. The front part of the frame of the dry bulk tank trailer has dual integral traction pins, while the rear part of the frame is made of wide wing-shaped profiles, thus solving the problem of easy rupture of welding between the angle aluminum profiles and webs; the suspension of the dry bulk tank trailer is connected to the wing-shaped profiles by HUCK rivets, such that the traveling mechanism is safer and more reliable; the dry bulk tank trailer is equipped with handrails on the tank top, thus the operation on the tank top is safer; the dry bulk tank trailer has an automatic tire inflation PSI system to ensure driving safety.

In addition, the dry bulk tank trailer is equipped with an intelligent unloading system with one-touch operation, so that complicated unloading operation is carried out by the pressure sensor, electro-pneumatic valve, PLC program and other intelligent systems. Moreover, there are secondary safety valves to ensure the absolute safety of unloading. The manhole with an air pressure switch enables an operator to check the surrounding conditions of the tank top manhole and directly open or close the tank top manhole (charging opening) through a mobile phone on the ground, avoiding the possible risk of falling from the tank top.

In order to meet the needs of corporate management and governmental safety management, the dry bulk tank trailer has "GPS tracking", "image monitoring" and other functions to support driving safety monitoring. The dry bulk tank trailer is also equipped with an intelligent safety system, which has GPS tracking, fatigue driving monitoring and early warning, road condition image, reversing image, tank top manhole (loading) image, unloading image, tire temperature and pressure monitoring and other functions. This allows real-time monitoring in the cab and real-time viewing, replay and early warning on fixed terminals (such as computers) or mobile terminals (such as mobile phones).

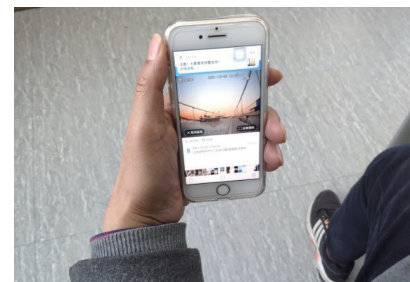
Based on the research and development investment for the above new product, the dry bulk tank trailer of Yangzhou Tonghua has large advantages in terms of light weight, intelligentization and safety.



Intelligent Aluminum Alloy Horizontal Dry Bulk Tank Trailer



Automatic Unloading System




Manhole (Loading) System with an Air Pressure Switch

### Case Cooperation of CIMC RJST Tank Trailer with Schools and Enterprises

In recent years, CIMC RJST Tank Trailer has exchanged and cooperated with well-known universities or enterprises at home and abroad. In cooperation projects, existing technologies for three major vehicles in Ruijiang are optimized and improved on the one hand; the direction of future product innovation is determined through technical roadmap planning, on the other hand. In the process, we have actively introduced and assimilated domestic and foreign advanced technologies. We have cooperated with LAG, a Belgian company, in research and development, to assimilate and introduce European advanced technology of equipment products for storage and transportation of fluid materials and powder and particle materials. We have cooperated with SAIC IVECO Hongyan in intelligent and integrated safety/monitoring design research of semi-trailer trains for transportation of chemical liquid materials. We have technically cooperated with universities in China (including Southeast University, Hefei University of Technology, Shanghai Tongji University, and Shenyang Ligong University) in vehicles including mixer trucks, liquid tank trailers, dry bulk tank trailers and manufacturing.

In 2021, CIMC RJST Tank Trailer carried out cooperation with East China University of Science and Technology in the project of research into anti-stick coating for the inner surface of the tank trailers and the project of research into the rate of corrosion of materials by chemical medium and solutions, and the cooperation with Wuhan University of Technology in the project for fatigue and durability analysis of a mixer truck and its chassis, so as to continuously improve the Company's ability to develop new products, and promote its continuous development and increase its market share.

Cooperative Organization	Content of Cooperation	Remarks
East China University of Science and Technology	Research into anti-stick coating for the inner surface of the tank trailer	
East China University of Science and Technology	Research into the rate of corrosion of materials by chemical medium and solutions	
Wuhan University of Technology	Fatigue and durability analysis of a mixer truck and its chassis	
Suzhou Lvkong Transmission Technology Co., Ltd.	Technical development of the power system of a concrete mixer truck body	
Changsha Cyber-MI. Co., Ltd.	Development of electric body system of a mixer truck	
Zhengzhou Yuwei Electromechanical Technology Co., Ltd.	Concrete flow field simulation and blade optimization of mixing drum	
Baosteel	Cooperative development agreement for a mixer semi-trailer model	



## Intellectual Property Rights and Patent Maintenance

### Safeguarding Intellectual Property Rights and Interests

The Group upholds the philosophy of “building a high-quality patent portfolio and giving full play to the value of intellectual property rights”, and safeguards trade secrets, patents, and intellectual property rights in our products, technologies, designs and know-hows. We has formulated Patent Management Measures of the CIMC Vehicles Group in strict compliance with relevant laws, rules and regulations, such as the Patent Law of the People’s Republic of China, the Trademark Law of the People’s Republic of China, the Anti-Unfair Competition Law of the People’s Republic of China, Certain Provisions on Prohibition of Infringement of Trade Secrets. From the development of new products to the research and development of technologies and the introduction of foreign technologies, we protect our own interests according to law and respect the legitimate rights and interests of others and organisations. In 2021, the Group revised the Patent Management Measures of the CIMC Vehicles Group, including updating the incentive standards for patent inventors and required that the headquarters and its subsidiaries of CIMC Vehicles should implement the incentive policy for patent inventors according to the measures.

The Group attaches great importance to the management and protection of intellectual property rights and has established a set of management systems. For example, before the development of new products, global patent searches and novelty searches are required to prevent infringements; all new products and technologies developed independently will be protected in time by filing domestic and foreign patent applications. Meanwhile, when introducing and adopting foreign patented technology, the Group will respect the legitimate rights and interests of the intellectual property rights of other individuals and organisations, and will not participate in infringement activities.

List of New Licensed Patents of the Group in 2021<sup>2</sup>

S/N	Current Applicant (Patentee)	Utility Model Patent	Invention Patent	Design Patent	Total Number of Patents
1	Wuhu CIMC RuiJiang Automobile Co., Ltd.	70	3	2	75
2	CIMC Vehicles (Group) Co., Ltd.	15	1	0	16
3	Gansu CIMC Huajun Vehicles Co., Ltd.	18	0	0	18
4	Qingdao CIMC Special Vehicle Co., Ltd.	11	0	0	11
5	Zhumadian CIMC Huajun Casting Co., Ltd.	11	1	0	12
6	Luoyang CIMC Lingyu Automobile Co., Ltd.	11	0	0	11
7	Dongguan CIMC Special Vehicle Co., Ltd.	8	2	0	10
8	CIMC Taizijie Vehicle Body Manufacturing (Zhenjiang) Co., Ltd.	7	0	0	7
9	Yangzhou CIMC Tong Hua Special Vehicles Co., Ltd.	6	0	0	6
10	Shenzhen CIMC Vehicle Co., Ltd.	2	0	1	3
11	CIMC-SHAC (Xi'an) Special Vehicles Co., Ltd.	4	0	0	4
12	CIMC Vehicle (Jiangmen) Co., Ltd.	3	2	0	5
13	CIMC Vehicles (Shandong) Co., Ltd.	2	0	0	2
	Total	168	9	3	180

<sup>2</sup> The name of the first patentee is listed in the table for a patent with multiple patentees

In 2021, the Group invested a total of approximately RMB400 million in research and development, which created favorable conditions for the development of new products and the upgrading and transformation of production technologies. As at December 31, 2021, majority-owned subsidiaries of the Group in China had 180 new patents in 2021, including 168 utility model patents, 9 invention patents and 3 design patents.



New patents

180

### Case Powder Coating System and Powder Coating Method (CN201910949566.1)

As the world's leader in sophisticated manufacturing of semi-trailers and specialty vehicles, the Group not only focuses on building a sophisticated manufacturing system represented by "Light Tower" plants, but also continuously implements the philosophy of green development and actively develops and promotes green technologies integrating intelligentization, digitalization and lightweight. Under this background, powder coating technology has been developed.



Installation of Coating System



Production by Coating System

Powder coating technology is a technology that uses the intelligent powder coating system to monitor the instant position and instant movement speed of the workpiece to be sprayed and precisely control the movement of the spray gun, thus achieving the closed-loop control of the movement speed of the workpiece to be sprayed and the synchronous operation of the spray gun and the workpiece.

The technology has been vigorously promoted and applied by CIMC Shenzhen, a subsidiary of the Group. By applying the technology for powder coating of chassis trailers, firstly, the harm to the bodies of workers is avoided; secondly, the spraying accuracy is improved, which reduces the possibility of powder spreading to irrelevant spaces, and the harm to the environment of the plant; thirdly, the coating effect is improved to reduce the waste of resources, thus achieving the "high protection" of resources, and the method of production of urban vehicles is successfully applied to the production of passenger vehicles, thus pushing the technical boundary and achieving the universal application of technology.



## Supporting Industry Development

The Group is committed to maintaining the healthy development of the industry. In recent years, the Group has actively participated in the formulation and revision of national standards and industry standards in the vehicle industry, invested manpower and material resources in the technical verification and product verification of the standards, to promote the healthy development of the vehicle industry. The formulation and amendment of relevant national and industry standards in which the Group has participated in recent years are listed below:

S/N	Name of Standard	Category of Standard
1	GB 1589-2016 Limits of Dimensions, Axle Load and Masses for Motor Vehicles, Trailers and Combination Vehicles	National standard
2	GB 6420-2017 Freight Trailer Series Pedigree	National standard
3	No.1 Amendment to GB 7258-2017 Safety Specifications for Motor Vehicles Operating on Roads	National standard
4	GB 12676-2014 Road Vehicle – Braking Systems – Structure, Performance and Test Methods	National standard
5	GB 28373-2012 Tank Vehicles of Categories N and O with Regard to Rollover Stability	National standard
6	GB 15089-2016 Classification of Motor Vehicles and Trailers	National standard
7	JT/T 1100-2016 Trailer Converter Dolly	Industry standard
8	GB 29753-2013 Safety Requirements and Test Methods for Refrigerated Truck for Road Transportation of Perishable Foods and Biological Products	National standard
9	GB/T29912-2013 Technical Requirements for Type Selection of Urban Logistics Distribution Vehicles	National standard
10	GB/T 35782-2017 Specification for Drop and Pull Transport Vehicles	National standard
11	GB/T 3730.1 Motor Vehicles, Trailers and Combination Vehicles –Terms and Definitions Part 1	National standard
12	JT/T 1195-2018 Swap Body Markings for Multimodal Transport	Industry standard
13	JT/T 1178.2-2019 Safety Specification for Commercial Trucks	Industry standard
14	QC/T 23-2014 Milk Tankers	Industry standard
15	QC/T 980-2014 Coal Transport Vehicles	Industry standard
16	JT/T 389-2010 Specification for Van Trailers	Industry standard
17	JT/T 12772-2019 Technical Requirements and Test Methods for Swap Bodies for Multimodal Transport	Industry standard
18	WB/T 1046-2012 Requirements for Refrigerated Transport of Perishable Foods by Motor Vehicles	Industry standard
19	GB/T 37245-2018 General Technical Requirements for Centre-axle Trailers	National standard
20	GB/T 17275-2019 General Technical Requirements for Freight Draw-Bar Trailers	National standard
21	GB 18564.1-2019 Tank Trucks for Road Transportation of Liquid Dangerous Goods Part 1: Technical Requirements for Metal Atmospheric Tanks	National standard
22	T/CAAMTB XXXX – XXXX Technical Specification for Urban Logistics Vehicles	Group standard

### Case Participation of CIMC Vehicles in the Amendment to National Mandatory Standards

In 2021, CIMC Vehicles participated in the amendment to the Safety Requirements and Test Methods for Refrigerated Truck for Road Transportation of Perishable Foods and Biological Products (GB 29753), a national mandatory standard, by proposing the amendment to the body strength requirements and test requirements for refrigerated trailers and refrigerated transport vehicles at the seminar, so that the amended side wall strength index (0.3P) meets the national conditions of China, the strength design requirements and operation requirements for refrigerated trucks. Meanwhile, we proposed that in increasing the foam plastic of thermal insulation materials, the foam plastic with fluorine-free foaming and the combustion performance meeting the Class B requirements in GB8624 should be selected, so as to ensure the fireproof performance of the refrigerated transport vehicles. In addition, we put forward suggestions on the amendment to the seal performance test requirements for refrigerated trucks, so that the refrigerated trucks meet the standard requirements of European and American countries. In addition, we proposed suggestions on the amendment to warning signs for refrigerated trucks, so as to make the warning signs more identifiable and ensure the safety of operators.



### Case Acceptance of Suggestions of CIMC Vehicles on Amendment to National Standards

As the original national standard GB/T 3730.1 Motor Vehicles, Trailers and Combination Vehicles -Terms and Definitions Part 1 does not define the curtain-side trailer, trailer and side curtain transport vehicle separately, leading to the difficulty in promoting curtain-side trailers in China. CIMC Vehicles communicated and cooperated with the standardization commission, provided a large number of standard research results, product information and market application scenario information as to European curtain-side trailers, to show the structural differences between curtain-side trailers and ordinary van semi-trailers, and the application advantages of curtain-side trailers. We proposed that in amending GB/T 3730.1 Motor Vehicles, Trailers and Combination Vehicles -Terms and Definitions Part 1, side curtain trailer, semi-trailer and side curtain transport vehicle should be listed with van trailer, semi-trailer and van transport vehicle, but the side curtain trailers, semi-trailers and side curtain transport vehicle should be defined separately. After discussion with industry experts, communication with the standardization committee and administration authorities, the amendment for listing side curtain trailer with van trailer was finally accepted by relevant authorities. This paves the way for the promotion and application of side curtain trailers in China in the future and is of great social and economic significance.



### Case Exhibition of New and Efficient Double-trailer Trains of CIMC Vehicles at the World Road Transport and Bus Conference 2021

On December 21, 2021, the World Road Transport and Bus Conference 2021 started in Qingdao. The double-trailer train developed by CIMC Vehicles made its debut at the auto show. The project is a cooperative research project between CIMC Vehicles and the Research Institute of Highway Ministry of Transport. Yangzhou Tonghua participated in the project research and took charge of the research and development and trial-manufacturing of the prototype vehicle. With its beautiful appearance, high-efficiency performance and excellent manufacturing quality, the prototype vehicle received great attention from the government and the industry. With a longer length and more axles, the double-trailer train has a larger loading capacity, thus improving the transportation efficiency. The series of vehicle models have been used in Europe, Australia and other regions, which proves the higher transportation efficiency and safety of the double-trailer train. Transportation efficiency improvement, carbon emission reduction, energy conservation, environmental protection and safety have become the dominant theme of the development of the new-generation transportation. The Ministry of Transport and the CIMC Vehicles Group jointly carried out the double-trailer train project, in line with the development of the times, so as to explore efficient means of transport suitable for road transport environment in China, through the project research. This provides a basis for the amendments to transportation standards and regulations.



## Dedicated Service and Customer Satisfaction

The Group has always focused on “Producing Products Trusted by Customers” as the core of its operations. We have established a complete customer service support system and information feedback system through our direct sales and dealer networks, and formulated a “Customer Satisfaction Control Program” to provide customers with warm customer service throughout the life span.

### Improving Cost-performance Ratio of Products

While providing customers with high-quality products, the Group pays more attention to the cost-performance ratio of products produced in the entire industry. Therefore, the Group has established the basic models of mainstream products by sorting out and analyzing the market conditions that it focuses on and integrated the high-quality product resources of the “Light Tower” plants, and tailored solutions to suit to individualized demands, to sell representative products while increasing the added value of the products. The Group provides customers with high cost-performance ratio products based on the advantage of lower costs benefiting from centralized procurement.

### Rapid Response Mechanism for Customer Complaints

The Group has formulated customer complaint response plans, specified the time limit for problem resolution and responsible contacts, and cooperates with overseas sales points (distributors and overseas subsidiaries) and domestic manufacturers to formulate emergency plans for major quality issues to ensure a rapid response mechanism of feeding back on the issues within 24 hours. Meanwhile, the Group has customized the corresponding standing list of wearing parts according to the sales of mainstream products in different overseas markets, established overseas spare parts warehouses and authorized repair points through negotiation with overseas sales points and major customers, and provided professional training for its maintenance personnel, and advocates the early detection, early consultation, and early resolution of product quality issues, to enhance customer satisfaction with timely and effective after-sales service. The number of customer complaints received by the Group in respect of products and services for the year was 1, with customer satisfaction of 95.0%.

### Daily Management and Communication Mechanism

Based on the customer management system, the Group systematically manages customer information and existing historical sales data in a digital, family-mapped, scientific way, so that customer information is completed and can be updated frequently, forming a richer and smarter customer information database.



### Case “Golden Autumn Services in North China” Activity of Yangzhou Tonghua

Since its establishment, Yangzhou Tonghua has always adhered to the customer-oriented business philosophy, focused on details, continuously carried out innovation and rewarded new and old customers for their care and support, with tangible action. After the National Day in 2021, the “Golden Autumn Services in North China” activity of Yangzhou Tonghua was officially launched. The after-sales service team drove a long distance to North China, where they learn about customers’ use of vehicles and provide on-site services for customers.



The service team firstly came to the premises of a branch of BBMG Jidong Cement. After the arrival, the service team asked the customers about the actual use of the vehicles. The customers said that the cement tankers of Yangzhou Tonghua in use were excellent in quality, almost without problems. The service team decided to help the customers carry out a comprehensive inspection of all the vehicles to identify potential hazards. The customers were very happy and praised Yangzhou Tonghua for its considerate services.

Subsequently, the service team came to a distribution area for edible oil transportation. As customers of Yangzhou Tonghua in the region varied in sizes and usually did not pay attention to the standardization of vehicle use, the service team not only helped the customers check the vehicle condition, replace and repair quick-wear parts including bottom valves and sealing rings, but also pointed out matters needing attention in daily use of vehicles, so as to help drivers use vehicles efficiently and scientifically and improve the utilization rate of vehicles.

### Case After-sales Services Beyond Customer Expectation

In July 2021, Xi'an CIMC delivered 30 new vehicles with a tarp system to customers in Xi'an. Based on the service philosophy of customer first, Xi'an CIMC worked with the customers to train their drivers in matters needing attention in vehicle use before the use of the new vehicles. The main contents of the training are as follows: 1: When the tarp system is not opened, the body should not be tipped, so as to prevent the deformation of the tarp arms and the rear roller assembly due to the opening of the rear doors. 2: When the vehicle is not in use, the tarp should be opened to prevent rain and snow from building up on the tarp, causing deformation of the tarp arms and tear of the tarp. 3: Drivers are instructed to maintain and inspect the vehicles regularly. At the initial stage of vehicle operation, Xi'an CIMC provided 24-hour services, which ensured the provision of service on call, thus being highly recognized by customers.



## Information Security and Privacy Protection

Customer information is closely related to the vital interests of customers. Protecting customer information and privacy is the foundation for maintaining long-term sustainable cooperation. The Group attaches great importance to the protection of customer privacy and strictly abides by the laws and regulations on privacy protection in countries and regions where it operates, such as the Administrative Measures for Protection of the Security of International Internetworking of Computer Information Networks, and ensures that customer information is protected through the establishment of rules and regulations, equipment and file encryption management, and the enhancement of employees' awareness of confidentiality and other measures. The main measures taken by the Group include:

Signature of  
agreements  
on key  
information

A confidentiality agreement must be signed if key information involved to ensure the safety of customer information;

Information  
inspection  
permission

The inquiry and use of customer information are operated through the customer management system and we set role-based access control for employees of different levels and different business scopes, and revoke the authority immediately after the employee leaves;

Special  
person  
responsibility  
system

The business manager is responsible for the customer privacy protection, and information is limited to flows between superiors and subordinates, to effectively avoid circulation between business units (mutual transmission requires the approval of the superiors of both units). Meanwhile, special business personnel are subject to confidentiality requirements.

In 2021, the Group was not subject to information security or privacy leakage incidents.



## Global Supply Chain Management

The Group firmly believes that the success of global operations is attributable to the cross-border design, cross-border manufacturing, and global supply chain capabilities. With the rapid expansion of business of the Group worldwide, component suppliers from the United States, China and other countries keep up with the development of the Group and gradually improve their international supply capacity, thus forming a mature global supply chain system for semi-trailer components.

In accordance with the Bidding and Tendering Law of the People's Republic of China and the Regulations on Implementation of the Bidding and Tendering Law of the People's Republic of China, the Group has formulated the Rules of the CIMC Vehicles Group on Management of Suppliers for Centralized Purchase of Materials, the Supplier Questionnaire and the Quarterly Supplier Evaluation Form, to ensure the level of suppliers. Our suppliers mainly include steel, aluminum companies, manufacturers of automobile and trailer parts (such as paint, main engine, wheel system, running gear, hydraulic system, electrical system, brake system and reflective products) and logistics transporters. We have established long-term cooperative relations with many well-known automobile and trailer parts manufacturers and steel suppliers around the world to ensure that our products are of high quality. In order to ensure the safety of the supply chain system and standardize fair cooperation with suppliers, we formulated the Regulations of CIMC Vehicles Group for the Management of Suppliers for the Centralised Procurement Materials. Starting with the daily benchmarking management of suppliers' qualifications, capabilities, equipment, operations, quality systems, personnel structure, etc., we advocates the survival of the fittest, fair competition, and strengthens management of centralized procurement supplier access, thus promoting and ensuring the sustainable and healthy development of the supply chain.

In order to promote lawful and clean operation, and to create a fair, just, standardized and transparent business environment with suppliers, the Group has signed the Integrity in Practice Agreement with all recruited suppliers. According to the relevant regulations on the management of commercial bribery, the agreement has clear terms for the business conduct of the Company, suppliers and related practitioners to prevent business risks and protect the interests of both the Company and the suppliers from infringement, thereby building a safe, healthy, and solid long-term cooperative relationship.

### Admission of Suppliers

In the supplier admission process, we adopted relevant inspection measures and requirements for environmental and social risk management of our suppliers during the year. For example, CIMC Liaoning and Yangzhou Tonghua required that suppliers of hazardous chemicals should have a hazardous chemicals business license and pass the quality management system certification, occupational health and safety management system certification and environmental management system certification; Lingyu Vehicles required that suppliers should clearly described whether environmental impact assessment was carried out for their production sites and should provide relevant proof, and that some chemical suppliers should provide certification for the environmental system audit; in the first cooperation with new suppliers, Xi'an CIMC first reviewed their environmental protection and safety, including on-site inspection, information review, special inspection of environmental protection equipment and the implementation of environmental protection processes, lack of environmental impact assessment approvals, penalties as to environmental protection and other indicators, all of which were taken into consideration in important project implementation and evaluation for new suppliers.

### Supplier Review

CIMC Vehicles organizes companies to conduct performance reviews on the four aspects of quality, cost, delivery, and service for the centralized procurement material suppliers. The companies provide a quarterly list of performance issues, and CIMC Vehicles scores the suppliers based on the list. According to the results of supplier performance evaluation, for suppliers scored below 70, or lower-ranking suppliers, relevant improvement reports are required to be submitted on a semi-annual basis, and when necessary, the global supply chain management department will organize a counselling team to conduct counselling in forms of meetings, on-site audits, etc., and track the supplier's implementation performance.

Supplier review includes qualification review and on-site review. Qualification review mainly refers to review of the supplier's qualifications and basic conditions. On-site review includes review of the company's organizational structure, personnel training, design and development and document management, procurement and control of incoming materials, and process implementation and monitoring, nonconforming product control and continuous improvement, inspection tool verification and equipment maintenance, final inspection and packaging and delivery.

In supply chain management, we continuously enhance our focus on suppliers in terms of HSE. For example, in the admission of suppliers and cooperation with them, Lingyu Vehicles strengthened the inspection of HSE compliance; in tendering for purchase of chemical materials, Shandong CIMC added the scoring item of whether the product packaging materials are environment-friendly and recyclable, and the scoring item of whether oddments are recycled; Yangzhou Tonghua urged suppliers with long-term cooperation to pass the environmental management system certification, and required that the treatment of hazardous wastes of suppliers should comply with national and local laws and regulations.

During the year, CIMC Vehicles had a total of 1,160 suppliers<sup>3</sup>, including 1,152 domestic suppliers, accounting for 99.3%, and 8 foreign suppliers, accounting for 0.7%. The distribution of suppliers by region is as follows:

Region	Number (Supplier)	Percentage (%)
North China	98	8.5%
Northeast China	41	3.5%
Northwest China	33	2.9%
East China	740	63.8%
Central China	164	14.1%
South China	66	5.7%
Southwest China	5	0.4%
Hong Kong, Macau and Taiwan	5	0.4%
Foreign countries	8	0.7%
Total	1,160	100%

Number and Proportion of Suppliers Passing Relevant System Certification or Evaluation

	Passing Quality Management System Certification	Passing Occupational Health and Safety Management System Certification	Passing Environmental Management System Certification	Signing Honest Cooperation Agreement (or Letter of Undertaking)	Signing HSE Undertaking
Number of Suppliers	804	580	611	719	175
As a Percentage of the Total Number of Suppliers	69.3%	50.0%	52.7%	62.0%	15.1%

Looking forward to the future, the Group will continuously strengthen the prevention and management of environmental and social risks of suppliers.

<sup>3</sup> Supplier data of the Group covers suppliers of manufacturing supplies for manufacturing enterprises of the Group in China.



# 04



## Agglomerating Efforts and People First

The Group has always upheld the core human resource philosophy of “Putting People First, Common Cause”, and is committed to providing employees with a global career platform, so that all employees have the opportunity to promote, develop and achieve their careers. While providing the career platform and career development opportunities, the Group also hope that all employees, like the Group, will be committed to contributing to the world, the country, and the communities in which they live, and pay back to the society.





## Equal Employment and Rights Guarantee

The Group also strictly complies with the relevant domestic and foreign laws and regulations, such as the Labour Law of the PRC, the Labour Contract Law of the PRC, the Law on the Protection of Minors of the PRC, the Provisions on the Prohibition of Using of Child Labour, the U.S. Labour Law and the UK Labour Law. During the year, the Group did not commit any major violations related to employee employment, remuneration package, working hours, equal opportunities, anti-discrimination and employment of any child labour and forced labour.

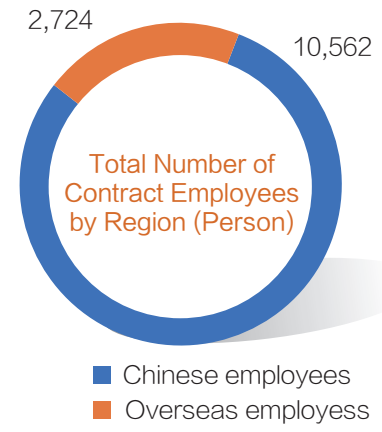
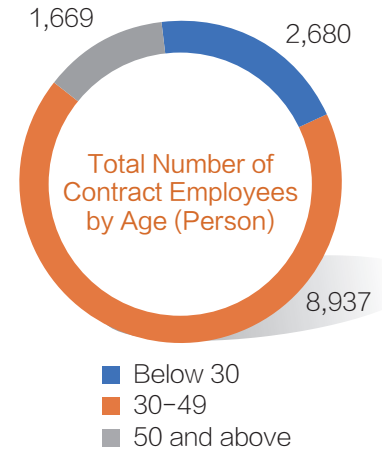
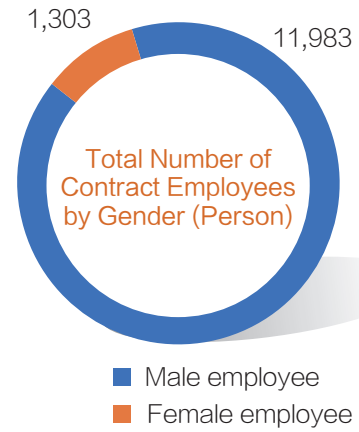
### Equal Employment

The Group believes that employees are a key factor for business success. Therefore, we are committed to providing a harmonious, inclusive, equal employment opportunity and non-discriminatory working environment for all employees to unleash the maximum potential. The Group strictly complies with the Recruitment Management Regulations of CIMC Vehicles to carry out recruitment work, and timely recruits outstanding talents through internal and external selection according to the needs of the Group’s business development and under the principle of “open recruitment, comprehensive investigation, and merit-based employment”.

During the recruitment screening process, the Human Resources Department will strictly review the qualifications and actual ages of candidates to prevent the employment of child labour. During the selection and appraisal process, the Group adheres to the principles of “open recruitment, comprehensive investigation, and merit-based employment”, considers the applicants’ educational background, work experience, training experience, and skills, etc., and undertakes that all enjoy equal job opportunities irrespective of their gender, age, nationality and race.

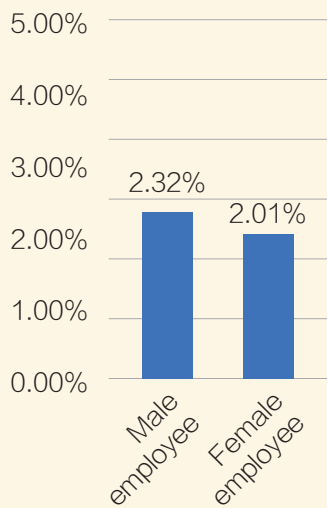
While continuously deepening the business philosophy of “Intercontinental Operation, Local Manufacturing”, we take “local wisdom” as a key management tool to promote the long-term development of local organizations and businesses, and effectively grasp local market opportunities. We make full use of the knowledge and experience of localised management teams to gain a deeper understanding of local regulatory requirements and market demands, which in turn allows us to effectively overcome the challenges brought by cultural and geographic differences. As at December 31, 2021, the Group had a total of **13,560** employees in the world, including (by employment type) **13,286** contract employees, **46** employees re-employed after retirement and **228** other employees. The breakdown of contract employees by gender, age group and region is shown in the right charts. To better coordinate with our global operations, we have taken the following measures:

- 1 Make use of local management teams for daily operations;
- 2 Adopt a profit sharing incentive scheme;
- 3 Establish effective corporate governance.

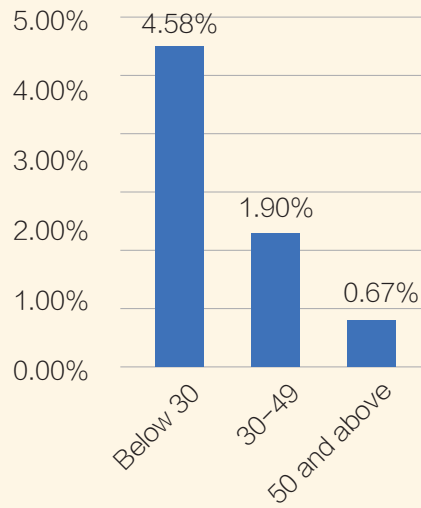


In terms of employee resignation, the Group has established a strict management process. After the employee submits a resignation application, we will first start the internal communication process and communicate with the employee who intends to resign through his/her direct superior and Human Resource Department to understand the reason for leaving office. If the employee wishes to resign due to company reasons, we will optimise and adjust the influencing factors so far as possible to retain the talents for the Company. If the employee decides to resign, after completing the resignation approval procedures, the Human Resources Department will handle the resignation matters for the employee and issue relevant certificates to clarify the further responsibilities and obligations of both parties. The turnover rates of contract employees of the Group by gender, age group and region are shown in the following chart.

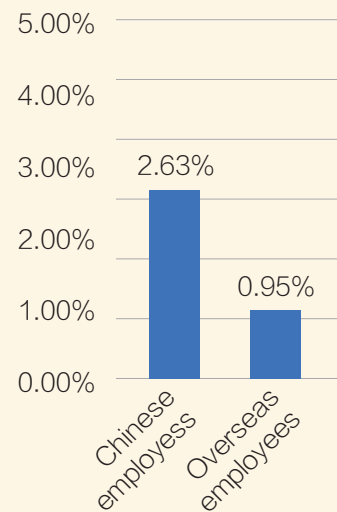
Turnover Rates of Contract Employees of the Group by Gender



Turnover Rates of Contract Employees of the Group by Age Group



Turnover Rates of Contract Employees of the Group by Region



## Remuneration Package

The Group adheres to the “external competition principle” and the “internal fairness principle” in its remuneration management Rules, formulates the Remuneration Management Rules and the Remuneration Management Measures, and attracts and retains talents needed for the development of the Group through scientific and standardized remuneration management.

The remuneration structure of the Group’s employees is basic monthly salary plus quarterly or annual performance incentives. A reasonable remuneration system is adopted to motivate employees and encourage them to give full play to their personal initiative.

## Welfare Benefits

The Group has strictly abided by the Social Insurance Law of the People’s Republic of China and the Regulations on the Management of Housing Provident Fund to provide pension insurance, work injury insurance, medical insurance, unemployment insurance, maternity insurance and housing provident fund for employees.

In addition to ensuring the annual leave and statutory holidays prescribed by the state, which are enjoyed by employees in accordance with the Labour Law of the PRC, the Group specially offers annual leave, incentive leave, special leave and other holidays of CIMC Vehicles. Meanwhile, the Group provides employees with additional welfare benefits including festival and holiday allowances, employee accident group insurance, annual travel benefits and hardship assistance funds.

## Working Hours

In accordance with the Labour Law of the PRC, the Group specifies the working hours and leave arrangements of employees through the CIMC Group Companies Employees Attendance and Holiday Management Regulations and the Employee Handbook. Through a “working hours adjustment” and a “flexible working time” system, we respect employees and their actual work needs, and provide them with flexible adjustment arrangements.

In addition, considering the fare-ups of the pandemic in 2021, we further optimized the flexible work plan during the pandemic. We encouraged employees who was in contact with a suspected case to stay at home in a timely manner, carry out daily work through teleworking, so as to take into consideration the outbreak prevention and control and the progress in daily work, and ensure the physical and mental health of our employees.

### Case

## Completion of Election of New Employee Representatives to Fully Guarantee the Democratic Participation Rights of Employees

In accordance with the Company Law and the Board governance structure requirements, CIMC Vehicles officially conducted re-election of employee representative Supervisors in September 2021. In strict compliance with the principles of “secret ballot” and “one person, one vote”, 1 employee representative Supervisor was democratically elected by members of departments at the headquarters of the CIMC Vehicles Group. The employee representative Supervisor listened to opinions and suggestions of employees, exercised rights on behalf of employees, fully expressed their opinions, performed the duties of supervision and inspection, and safeguarded the democratic decision-making, management and supervision rights of the employees.



## Talent Training, Promotion and Development

The Group is committed to providing a good career path for its employees and creating room for their growth. The Group persists in implementing the Training Management Procedure and the Training Management System, providing diversified training and development opportunities for its employees, including but not limited to training in digital skills and knowledge, lean management, quality control, professional knowledge and skills, laws and regulations.

The Group makes available various channel resources for internal and external training. The department taking charge of internal or external training should fill in the Training Record Form in a truthful and timely manner. After training, such department should keep relevant training records and materials or rating materials.

In addition, we have formulated the Performance Management System and the Rank and Grade Management System. Employees can get promotion through year-end assessment and daily work assessment. While encouraging learning, we promote employees who achieve work performance appraisal targets or annual performance appraisal targets in accordance with the Performance Management System and the Rank and Grade Management System.

Employee Training	Percentage of Employee Trained	Average Training Hours (Hours)
<b>By Gender</b>		
Male	62.34%	37.29
Female	56.57%	28.71
<b>By Rank</b>		
Senior management	83.33%	80.00
Middle management	66.67%	38.75

### Case Launch of “Senior Leadership Training Program” for Training Senior Leaders for Made in China 2025

The Group’s Senior Leadership Training Center will provide employees in leadership positions and core operating positions at headquarters and core enterprises, with opportunities for self-improvement, high-end manufacturing knowledge training and development of a comprehensive outlook. The Group has offered two courses in the senior leadership training program. Through the senior leadership training, the senior management can deeply understand the strategic plans of the Sophisticated Manufacturing System and the new management infrastructure, acquire the high-end leadership ability with the governance structure hierarchy, and thus become promoters of the Group’s Sophisticated Manufacturing System, core members of strategic development projects and even industry leaders. Many employees have graduated early from the senior leadership training program and become the core business executives of the Group.



### Case Deepening the Cooperation with Universities and Continuously Providing “Scholarships and Grants of CIMC Vehicles”

We fully understand that “talent is the first resource”. CIMC Vehicles continuously introduces recent graduates every year and pays attention to the growth of students. Since 2018, it has cooperated with Jiangsu University in providing scholarships and grants to encourage students to make greater efforts and become innovative talents that are essential for the society. Meanwhile, it has communicated with scholarship applicants and winners of cooperative universities every year and paid attention to the talent training under the school-enterprise cooperation.



### Case Continuously Promoting the Employer Brand and Deepening the Recent Graduate Training Program

The Company successively launched the “2025” and “Global Operations” talent training programs to recruit outstanding recent graduates to the Group. The Company provides “2025” and “Global Operations” trainees with comprehensive professional training courses and rich practice projects, to enhance their professional ability and personal leadership, regularly provides them with regular review reports and professional guidance and encourages them to actively participate in the projects of constructing the sophisticated manufacturing system. This helps continuously trains core technical backbones leading the development of Industry 4.0 and global operation strategy leaders for the Company and the society.



### Case Opening Ceremony of the Special Training Camp (Phase II) of CIMC Vehicles for Sophisticated Manufacturing of Vehicle Model of the Year was Successfully Held

In order to implement the construction plan of the sophisticated manufacturing system of CIMC Vehicles, deepen and expand the sophisticated manufacturing system, CIMC Vehicles further upgraded the training module, combined the modular design of products with the new retail, and developed the business thinking of engineers. In December 2021, the “2021 Special Training Camp for Sophisticated Manufacturing of Vehicle Model of the Year” was launched. During the period, the trainees were provided with various courses including methodology, business insight and professional skill improvement. Meanwhile, under the principle of “unity of knowledge and action”, the special training camp provided subject reports in consideration of the needs of enterprises, while carrying out the course training, and converted the product modularization philosophy into actual product achievements and promoted the production of products.



## Occupational Safety and Staff Health

### Occupational Health and Safety

The Group has always adhered to the HSE philosophy of “compliance, safety, health and green operation”, and strictly implemented the safety management policy of “safety and prevention first and comprehensive management”. The Group complies with the Work Safety Law of the People’s Republic of China, the Law of the People’s Republic of China on the Prevention and Treatment of Occupational Diseases, the Labour Law of the People’s Republic of China and the relevant laws and regulations in overseas areas of operation of the Group in relation to work safety. It continuously implements the staff work safety responsibility system, strengthens the standardization construction for work safety, and organizes the establishment and implementation of the dual prevention mechanism of hierarchical control of safety risk, identification and treatment of potential hazards. The Group is committed to improving the intrinsic safety of production lines, continuously promoting the HSE information construction, and facilitating the efficient management and control of HSE risks. Meanwhile, in accordance with the requirements of the Law of the People’s Republic of China on the Prevention and Treatment of Occupational Diseases, we engage hospitals with relevant qualifications to continuously and comprehensively carry out the occupational health examination of our employees, so as to strictly ensure their occupational health and safety. During the year, the Group did not violate laws and regulations in respect of occupational health and safety. In 2019 and 2021, the number of work-related fatalities was nil in the Group. In 2020, the number of work-related fatalities was 1<sup>4</sup>, with a ratio of 0.075%. In 2021, the number of the Group’s working days lost due to work-related injuries was 1,258 days in China and 255 days abroad.

#### Case Effective Prevention of Safety Risks in Work in a Confined Space, Using Intelligent Information Means

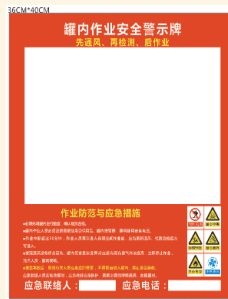
HSE Information Construction: In 2021, Lingyu Vehicles improved the management level of work safety and effectively prevented the safety risks in work in a confined space (in the tank), by installing wireless cameras and synchronous displays on the site, improving risk warning signs, changing the alarm remote controller to a safety bracelet, and adding intelligent information means such as a four-in-one gas detector.



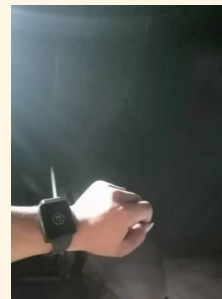
Installing Wireless Cameras



Installing Synchronous Displays on the Site



Improving Risk Warning Signs



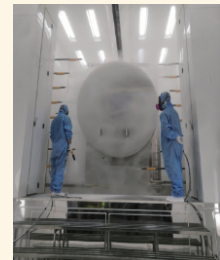
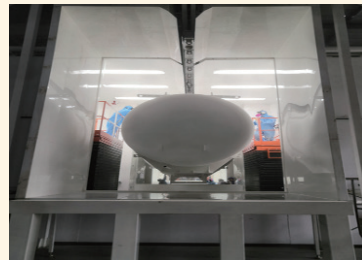
Wearing a Safety Bracelet



Add a Gas Detector

#### Case Upgrading of the Production Line of CIMC RJST Tank Trailer for Safeguarding Occupational Health of Employees

In 2021, CIMC RJST Tank Trailer actively and comprehensively promoted the upgrading of the traditional process and production line of painting with oil paint. CIMC RJST Tank Trailer has established the world’s first mixer powder coating production line, changing the process of manual spraying with oily paint to the automatic electrostatic powder spraying process, thus reducing the generation of pollutants such as volatile organic compounds and hazardous waste at source, and ensuring the occupational health of employees.



<sup>4</sup> The number of work-related fatalities disclosed, as of the date of publication of the Report, is subject to the government’s determination of production safety liability accidents.

## Employee Communication and Care

Through various employee activities, the CIMC Vehicles Group creates a good communication atmosphere for its employees. The Group sends greetings and birthday gifts to its birthday employees in the month of their birth, surprising and showing its care for its employees. Meanwhile, the Group holds monthly or quarterly birthday parties to gather together birthday employees, for celebration and thanking them for their contributions while showing care for them.

Subject to ensuring the health and safety of employees, the Group persists in carrying out various sports and recreational activities and actively provides employees with opportunities for activities. In addition to the above regular birthday parties, we also carry out activities such as Yantian Binhai Hiking, Dongxichong Hiking, professional etiquette training courses, basketball matches, the free books from the president, all of which are recognized and praised by employees.

### Case “Keep Moving in Spite of Obstacles, and Challenge Yourself” – Shenzhen Dongxichong Hiking

In 2021, the headquarters of the Company organized the Dongxichong Hiking, which was actively participated by its employees. The activity entertained and relaxed the employees, and further enhanced the communication between them. It fully demonstrated the positive and optimistic attitude of CIMC Vehicles’s employees to life and work, inspired their enthusiasm for work, and made them devote themselves to the high-quality development of the Company in a more enthusiastic, aggressive, and pragmatic manner.



### Case “Consolidation of the New Management Infrastructure, Future Low Carbon Footprint” – New Year Book Giving by the President in 2021

In 2021, the book giving and reading sharing activity of the president gained traction with and was actively participated in by the employees of the Company. CIMC Vehicles is actively developing a learning organization and creating a strong atmosphere of “love reading, read good books and be good at reading”, so as to improve employees’ cultural literacy, and establish a capable team.





## Serving People and Giving Back to Society

The Group has always adhered to the spirit of responsibility, and actively contributed to the local economy, people's livelihood and social harmony. The Group does not forget to give back to the society in its development. In 2021, the Group actively took part in social welfare activities, carried out various charitable donations and volunteer activities such as social assistance, environmental protection practice and the fight against the pandemic, and maintained good communication with the community.



Performance  
Indicator



Number of social  
welfare activities: **6**



Amount of donations (RMB):  
**RMB1 million**



Number of participants  
in volunteer services:  
**284 participants**



Duration of  
volunteer services:  
**4,773 hours**

### Case Response of Yangzhou Tonghua to the Pandemic in Yangzhou

In August 2021, a sudden pandemic put a cause in Yangzhou, a beautiful ancient city. In the face of the sudden outbreak, Yangzhou Tonghua fulfilled its social responsibilities with tangible action. It contributed to the fight against the outbreak by actively donating RMB1 million to the Charity Association of Yangzhou Economic and Technological Development Zone. Meanwhile, employees of Yangzhou Tonghua were enthusiastic about the fight against the outbreak. More than 20 members and their families joined the volunteer service team to fight against the outbreak. They jointly built the moat for the fight against the outbreak in Yangzhou to guard their beautiful homeland.



# Appendix I: Industry Association

No.	Name of Association	Member Company	Capacity
1	China Association of Automobile Manufacturers (中國汽車工業協會)	The Group	Vice Chairman
2	Special Purpose Vehicle Branch of the China Association of Automobile Manufacturers	The Group	Chairman
3	National Technical Committee of Auto Standardization, Special Vehicle Sub-technical Committee (全國汽車技術標準委員會專用車分技術委員會)	The Group	Deputy Secretary
4	National Technical Committee of Auto Standardization, Trailer Sub-technical Committee (全國汽車技術標準委員會掛車分技術委員會)	The Group	Deputy Secretary
5	National Technical Committee of Auto Standardization	The Group	Member
6	Guangdong Logistics Profession Association	The Group	Vice Chairman
7	Shenzhen Fresh Food Cold Chain and Urban Logistics Association (深圳市生鮮冷鏈與城市物流協會)	The Group	Vice Chairman
8	Sub Committee for Freight Industry of CFLP	The Group	Vice Chairman
9	Society of Automotive Engineers of Jiang Su (江蘇省汽車工程學會)	Yangzhou Tonghua	Managing Director
10	Hazardous Chemicals Logistics Branch of China Federation of Logistics & Purchasing (中國物流和採購聯合會危化品物流分會)	Yangzhou Tonghua	Managing Director
11	LNG Tank Supply Chain Innovation Alliance (LNG 罐箱供應鏈創新聯盟)	Yangzhou Tonghua	Director
12	Shanghai Transportation Trade Association	Yangzhou Tonghua	Director
13	Special Purpose Vehicle Branch of the China Association of Automobile Manufacturers	Yangzhou Tonghua	Vice Chairman
14	China Association of Automobile Manufacturers (中國汽車工業協會)	Yangzhou Tonghua	Director
15	China Society of Automotive Engineers	Yangzhou Tonghua	Director
16	China Society of Automotive Engineers, Specialty Vehicles Branch (中國汽車工程學會專用車分會)	Yangzhou Tonghua	Member
17	China Association for Standardization, Automobile Branch	Yangzhou Tonghua	Director
18	National Technical Committee of Auto Standardization, Trailer Sub-technical Committee	Yangzhou Tonghua	Member
19	National Technical Committee of Auto Standardization, Special Vehicle Sub-technical Committee	Yangzhou Tonghua	Member
20	Hazardous Chemicals Logistics Branch of China Federation of Logistics & Purchasing (中國物流和採購聯合會危化品物流分會)	CIMC Jiangmen	Vice Chairman
21	Hazardous Chemicals Logistics Branch of China Federation of Logistics & Purchasing (中國物流和採購聯合會危化品物流分會)	CIMC RJST Tank Trailer	Vice Chairman
22	Ready Mixed Concrete Branch, China Concrete & Cement-based Products Association (中國混凝土與水泥製品協會預拌混凝土分會)	CIMC RJST Tank Trailer	Vice Chairman
23	China Foundry Association (中國鑄造協會)	Huajun Casting	Member
24	Henan Casting & Forging Industrial Association (河南省鑄鍛協會)	Huajun Casting	Vice Chairman
25	Henan Automobile Industry Association (河南省汽車行業協會)	CIMC Huajun	Vice Chairman

No.	Name of Association	Member Company	Capacity
26	Society of Automotive Engineers of Henan	CIMC Huajun	Managing Director
27	Henan Environment Federation (河南省環保聯合會)	CIMC Huajun	Director
28	Henan Enterprise Confederation/Henan Entrepreneurs Association (河南省企業聯合會 / 河南省企業家協會)	CIMC Huajun	Director
29	Henan Chief Information Officer Alliance (河南省首席信息官聯盟)	CIMC Huajun	Director
30	Zhumadian Righteous Behavior Association (駐馬店市見義勇為協會)	CIMC Huajun	Member
31	Zhumadian Enterprise Directors Association (駐馬店市企業家協會)	CIMC Huajun	Honorary Chairman
32	Qingdao Industrial Design Association (青島市工業設計協會)	Qingdao CIMC Special Vehicle	Member
33	Qingdao Automobile Industry Association (青島市汽車行業協會)	Qingdao CIMC Special Vehicle	Member
34	Enterprises Federation of West Coast New Area (西海岸新區企業聯合會)	Qingdao CIMC Special Vehicle	Director
35	China Petroleum and Chemical Industry Federation (中國石油和化學工業聯合會)	CIMC RJST Tank Trailer	Member
36	Shandong Automobile Industry Association (山東省汽車行業協會)	Shandong CIMC	Member
37	Society of Automotive Engineers of Shaanxi (陝西省汽車工程學會)	Xi'an CIMC	Managing Director
38	Shaanxi Automotive Industry Association (陝西省汽車工業協會)	Xi'an CIMC	Managing Director
39	Hazardous Chemicals Logistics Branch of China Federation of Logistics & Purchasing (中國物流和採購聯合會危化品物流分會)	CIMC Jiangmen	Vice Chairman
40	Hunan Federation of Logistics and Purchasing	CIMC Jiangmen	Director
41	Guangdong Enterprise Industry Association	CIMC Jiangmen	Member
42	Specialty Vehicles Industry Association of Liangshan County	Shandong Wanshida	Member
43	China Association for Standardization, Automobile Branch	Shandong Wanshida	Member
44	China Communications and Transportation Association, Professional Committee for Bulky Item Logistics	Liangshan CIMC Dongyue	Director
45	China Association for Science and Technology	Liangshan CIMC Dongyue	Member
46	Specialty Vehicles Industry Association of Liangshan County	Liangshan CIMC Dongyue	Vice Chairman
47	China Construction Machinery Association, Concrete Machinery Branch	Lingyu Vehicles	Member
48	National Technical Committee for Standardization of Construction Machinery and Equipment, Concrete Machinery Sub-technical Committee (全國建築施工機械與設備標準化技術委員會混凝土機械分技術委員會)	Lingyu Vehicles	Member
49	China Bulk-cement Association of Popularization & Development (中國散裝水泥推廣發展協會)	Lingyu Vehicles	Managing Director
50	China Automobile Standardization Association, Automobile Branch (中國汽車標準化協會汽車分會)	Lingyu Vehicles	Member
51	China Petroleum and Chemical Industry Federation (中國石油和化學工業聯合會), National Collaboration Committee for Transportation and Logistics of Dangerous Chemicals (全國危險化學品運輸和物流協作委員會)	Lingyu Vehicles	Director

# Appendix II:

## HKEX ESG Guide Content Index

Content Index		Section	
<b>Mandatory Disclosure Requirements</b>			
Governance structure	A statement from the board containing the following elements: (i) a disclosure of the board's oversight of ESG issues; (ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.	Directors' Statement	
Reporting Principles	A description of, or an explanation on, the application of the following Reporting Principles in the preparation of the ESG report: Materiality: The ESG report should disclose: (i) the process to identify and the criteria for the selection of material ESG factors; (ii) if a stakeholder engagement is conducted, a description of significant stakeholders identified, and the process and results of the issuer's stakeholder engagement. Quantitative: Information on the standards, methodologies, assumptions and/or calculation tools used, and source of conversion factors used, for the reporting of emissions/energy consumption (where applicable) should be disclosed. Consistency: The issuer should disclose in the ESG report any changes to the methods or KPIs used, or any other relevant factors affecting a meaningful comparison.	About the Report	
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	About the Report	
<b>A. Environment</b>			
A1: Emissions	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Emissions and Pollution Reduction
	A1.1	The types of emissions and respective emissions data.	Appendix III: Environmental KPIs Table
	A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions and intensity.	
	A1.3	Total hazardous waste produced and intensity.	
	A1.4	Total non-hazardous waste produced and intensity.	Emissions and Pollution Reduction
	A1.5	Description of emissions target(s) set and steps taken to achieve them.	
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Emissions and Pollution Reduction	
A2: Use of Resources	General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Conserving Resources and Increasing Energy Efficiency
	A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total and intensity.	Appendix III: Environmental KPIs Table
	A2.2	Water consumption in total and intensity.	Conserving Resources and Increasing Energy Efficiency
	A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	

Content Index			Section
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Conserving Resources and Increasing Energy Efficiency
	A2.5	Total packaging material used for finished products and with reference to per unit produced.	Conserving Resources and Increasing Energy Efficiency
A3: The Environment and Natural Resources	General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	Environmental Protection and Green Manufacturing
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Environmental Protection and Green Manufacturing
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.	Climate Mandate and Low-Carbon Development
	A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Climate Mandate and Low-Carbon Development
<b>B. Social</b>			
B1: Employment	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Equal Employment and Rights Guarantee
	B1.1	Total workforce by gender, employment type (for example, full - or part-time), age group and geographical region.	Equal Employment and Rights Guarantee
	B1.2	Employee turnover rate by gender, age group and geographical region.	Equal Employment and Rights Guarantee
B2 : Health and Safety	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Occupational Safety and Staff Health
	B2.1	Number and rate of work-related fatalities occurred in the past three years including the reporting year.	Occupational Safety and Staff Health
	B2.2	Lost days due to work injury.	Occupational Safety and Staff Health
	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Occupational Safety and Staff Health
B3: Development and Training	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Talent Training, Promotion and Development
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Talent Training, Promotion and Development
	B3.2	The average training hours completed per employee by gender and employee category.	Talent Training, Promotion and Development
B4: Labor Standards	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Equal Employment and Rights Guarantee
	B4.1	Description of measures to review employment practices to avoid child and forced labour.	Equal Employment and Rights Guarantee
	B4.2	Description of steps taken to eliminate such practices when discovered.	Equal Employment and Rights Guarantee

Content Index			Section
B5: Supply Chain Management	General Disclosure	Policies on managing environmental and social risks of the supply chain.	Global Supply Chain Management
	B5.1	Number of suppliers by geographical region.	Global Supply Chain Management
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Global Supply Chain Management
	B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Global Supply Chain Management
	B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Global Supply Chain Management
B6: Product Liability	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Intelligent Products, Leading the Industry
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Quality Commitment and Comprehensive Assurance
	B6.2	Number of products and service related complaints received and how they are dealt with.	Dedicated Service and Customer Satisfaction
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	Intellectual Property Rights, and Patent Maintenance
	B6.4	Description of quality assurance process and recall procedures.	Quality Commitment and Comprehensive Assurance
	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Information Security and Privacy Protection
B7: Anti-corruption	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Honesty and Integrity in Operations
	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.	Honesty and Integrity in Operations
	B7.2	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Honesty and Integrity in Operations
	B7.3	Description of anti-corruption training provided to directors and staff.	Explained
B8: Community Investment	General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Serving People and Giving Back to Society
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Serving People and Giving Back to Society
	B8.2	Resources contributed to the focus area.	Serving People and Giving Back to Society

# Appendix III: Environmental KPIs Table

Indicator	Unit	Total in 2021	Total in 2020	Comparison of Totals in 2021/2020	Intensity (Per RMB100 million of revenue)
Total wastewater discharge	1,000 m <sup>3</sup>	646.27	658.71	- 1.89%	2.51
Waste gas emissions: Volatile organic compounds (VOCs)	Ton	70.81	79.82	- 11.29%	0.27
Total greenhouse gas emissions	tCO <sub>2</sub> e	187,034.92	191,040.61	- 2.10%	725.00
Direct greenhouse gas emissions	tCO <sub>2</sub> e	36,482.33	37,270.01	- 2.11%	141.42
Indirect greenhouse gas emissions	tCO <sub>2</sub> e	150,552.59	153,770.61	- 2.09%	583.58
Total amount of hazardous waste generated	Ton	2,775.73	2,712.46	2.33%	10.76
Total amount of non-hazardous waste generated	Ton	74,571.97	77,210.28	- 3.42%	289.06
Total energy consumption	tce	50,006.09	52,105.94	- 4.03%	193.84
Electricity consumption	tce	31,200.76	32,237.12	- 3.21%	120.94
Gas consumption	1,000 m <sup>3</sup>	11,385.37	11,973.79	- 4.91%	44.13
Oil consumption	1,000 L	3,059.00	3,286.96	- 6.94%	11.86
Oil consumption - Gasoline	1,000 L	289.99	325.15	- 10.81%	1.12
Oil consumption - Diesel	1,000 L	2,769.01	2,961.81	- 6.51%	10.73
Total water consumption	1,000 m <sup>3</sup>	1,343.72	1,237.18	8.61% <sup>5</sup>	5.21

<sup>5</sup> There is an increase in the total water consumption for the year, as the Group further standardized the water consumption reporting process in the year, by including the water consumption of the dormitory in the calculation.

# Appendix IV: Definitions

Terms	Definitions
“Company” or “CIMC Vehicles”	CIMC Vehicles (Group) Co., Ltd.
“Group” or “We” or “us”	the Company and its subsidiaries
“The Report”	Social Responsibility and Environmental, Social and Governance Report of CIMC Vehicles 2021
“This Year” or “during the Reporting Period”	January 1, 2021 to December 31, 2021
“Hong Kong Stock Exchange”	The Stock Exchange of Hong Kong Limited
“ESG Guide”	Environmental, Social and Governance Reporting Guide
“Shandong CIMC”	CIMC Vehicles (Shandong) Co., Ltd. (中集車輛(山東)有限公司)
“Qingdao Reefer”	Qingdao CIMC Reefer Trailer Co., Ltd. (青島中集冷藏運輸設備有限公司)
“CIMC RJST Tank Trailer”	Wuhu CIMC Ruijiang Automobile Co., Ltd. (蕪湖中集瑞江汽車有限公司)
“CIMC Shenzhen”	Shenzhen CIMC Vehicle Co., Ltd. (深圳中集專用車有限公司)
“CIMC Huajun”	Zhumadian CIMC Huajun Vehicle Co., Ltd. (駐馬店中集華駿車輛有限公司)
“Qingdao CIMC Special Vehicle”	Qingdao CIMC Special Vehicle Co., Ltd. (青島中集專用車有限公司)
“Dongguan CIMC”	Dongguan CIMC Special Vehicle Co., Ltd. (東莞中集專用車有限公司)
“Yangzhou Tonghua”	Yangzhou CIMC Tong Hua Special Vehicles Co., Ltd.
“Vanguard Trailer”	China Jiangsu Vanguard Trailer Rental Co., Ltd. (江蘇掛車幫租賃有限公司)
“Lingyu Vehicles”	Luoyang CIMC Lingyu Automobile Co., Ltd. (洛陽中集凌宇汽車有限公司)
“CIMC Jiangmen”	CIMC Vehicle (Jiangmen) Co., Ltd. (中集車輛(江門市)有限公司)
“Huajun Casting”	Zhumadian CIMC Huajun Casting Co. Ltd. (駐馬店中集華駿鑄造有限公司)
“Liangshan CIMC Dongyue”	Liangshan CIMC Dongyue Vehicle Co., Ltd. (梁山中集東岳汽車有限公司)
“Xi'an CIMC”	CIMC-SHAC (Xi'an) Special Vehicles Co., Ltd. (中集陝汽重卡(西安)專用車有限公司)
“CIMC Liaoning”	CIMC Vehicles (Liaoning) Co., Ltd.
“Shaanxi CIMC”	CIMC Vehicles (Shaanxi) Automobile Co., Ltd. (中集車輛(陝西)汽車有限公司)
“Gansu Huajun Vehicle”	Gansu CIMC Huajun Vehicles Co., Ltd. (甘肅中集華駿車輛有限公司)
“Shandong Wanshida”	Shandong Wanshida Special Automotive Manufacturing Co., Ltd. (山東萬事達專用汽車製造有限公司)
“Jiangsu Baojing”	Jiangsu Baojing Auto Parts Co., Ltd. (江蘇寶京汽車部件有限公司)
“Zhenjiang TB”	CIMC Taizijie Vehicle Body Manufacturing (Zhenjiang) Co., Ltd. (中集車輛太字節汽車車廂科技(鎮江)有限公司)
“Vanguard (莫嫩)”	Vanguard National Trailer Corporation
“Vanguard (特倫頓)”	Vanguard National Trailer Corporation
“SDC”	SDC Trailers Limited
“LAG”	LAG Trailers NV Bree
“CRTI”	CIMC REEFER TRAILER, INC.
“RMB”	Renminbi
“VOCs”	Volatile organic compounds



# Readers' Feedback

**Dear Readers,**

Thank you for reading the Report. In order to continuously enhance and improve the sustainable development management of the Group, we sincerely hope to hear opinions or suggestions from you on the Report. Please help to complete the following form and return to us by email or by post.

Email address: ir\_vehicles@cimc.com

Post address: No. 2 Gangwan Avenue, Shekou Industrial Zone, Shenzhen, Guangdong, the PRC

1. What is your opinion of the Report:

Good             Average             Fair

2. Do you think the information and data disclosed in the Report are clear, accurate and complete?

Good             Average             Fair

3. Do you think the Report reflects the significant influence of the Group to the economy, society and environment?

Good             Average             Fair

4. How do you think of the Group's performance in safeguarding the interests of stakeholders?

Good             Average             Fair

5. Your opinions or suggestions on the sustainable development management of the Group:

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**Please leave your contact information if convenient:**

Name:

Post Code:

Contact address:

Occupation:

E-mail:

Company:

Tel:

We will take thorough consideration of your opinions and suggestions and make sure your personal information is handled properly.

## Report Preparation Organisation

**Leading Group**

CIMC Vehicles ESG Reporting Leading Group

**Preparation Group**

CIMC Vehicles ESG Reporting Project Implementation Group  
ESG reporting representatives of subsidiaries

中集车辆(集团)股份有限公司  
CIMC Vehicles (Group) Co., Ltd.

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