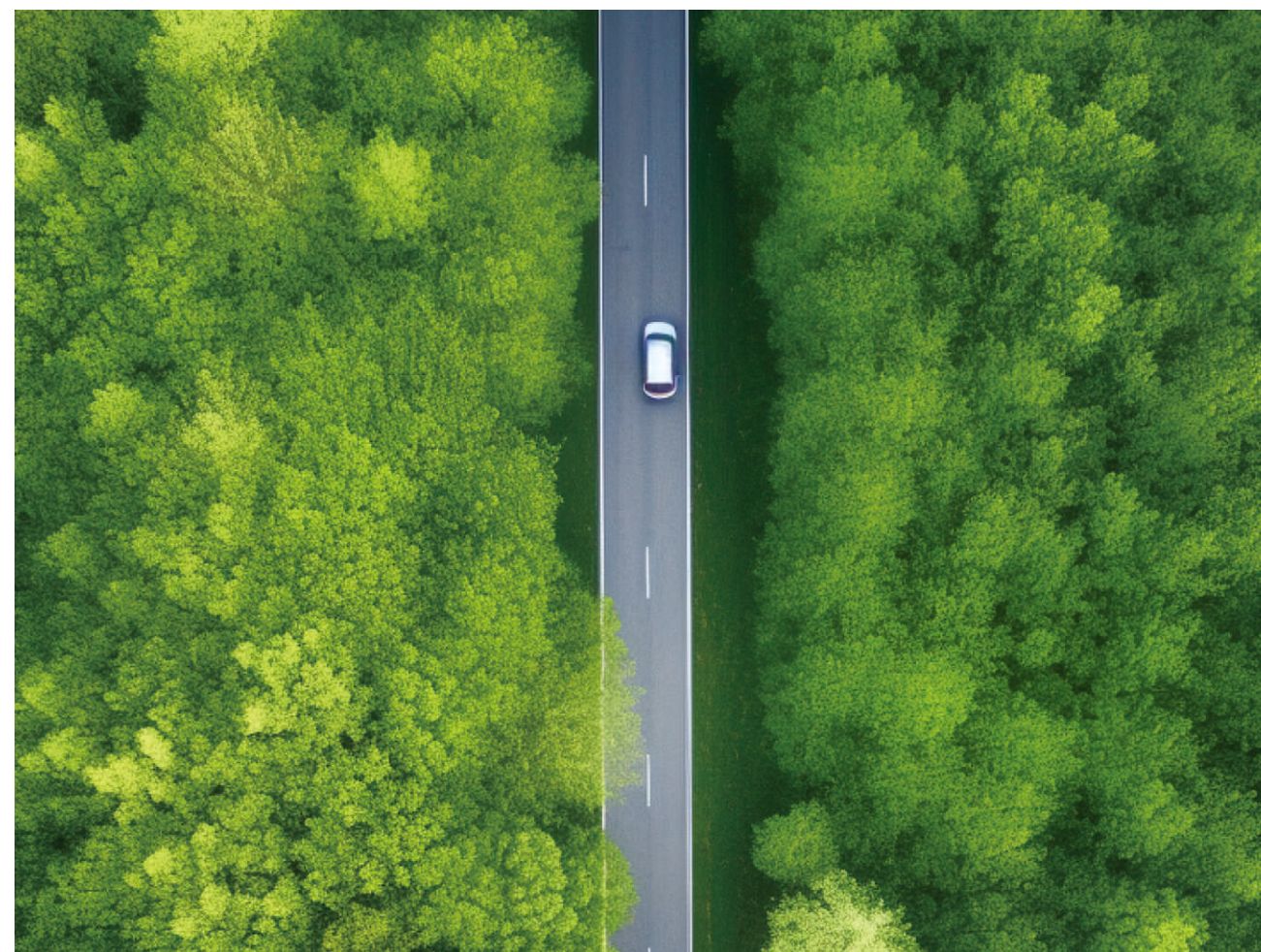
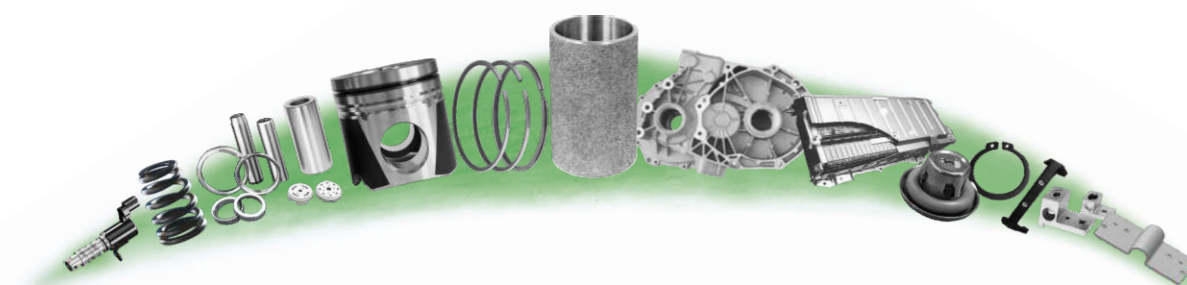


2022



Social Responsibility Report



# 2022 社会责任报告

## 2022 Social Responsibility Report

**ARN** 中国·安徽环新集团股份有限公司  
China · Anhui Ring New Group Co., Ltd

**ARN**

China · Anhui Ring New Group Co., Ltd

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# Preface

The automotive industry is one of the pillar industries for China's economic development, with China's automobile production and sales ranking first in the world.

As the foundation of the automotive industry, automotive parts are a necessary factor to support the sustained and healthy development of the automotive industry. Especially in the current automotive industry, which is vigorously carrying out technological innovation, a strong parts system is needed as support.

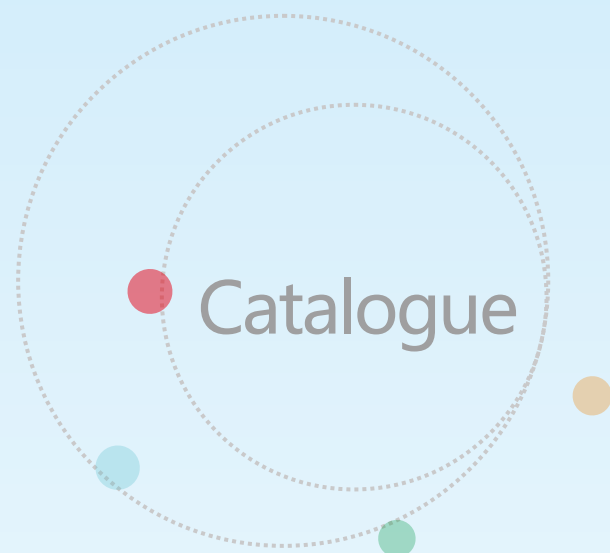
ARN Group has a "gene" of joint venture with ten partners from five countries. With the business philosophy of "introduction, digestion, absorption, and re-innovation", it has been deeply rooted in the field of automotive parts manufacturing for many years, and its product development, design, and manufacturing level is among the top in China.

At present, in the traditional ICE industry, the market share of piston rings is 53.3%, valve seats 51.3%, and gasoline engine cylinder liners 76.1%. Among them, the manufacturing scale of piston ring factory and gasoline engine cylinder liner factory are among the world's top, and ARN brand has won the reputations from domestic and foreign customers.

The Development Plan for the New Energy Vehicle Industry in China (2021-2035) points out that the development of new energy vehicles is the only way for China to transition from a major automotive country to an automotive powerhouse, and is a strategic measure to address climate change and promote green development. As an upstream industry in the automotive supply chain, ARN Group actively implements policy planning, practices energy-saving, low-carbon, and green development requirements, increases investment in scientific and technological innovation, deepens the application of information management platforms and industrial internet platforms, and improves enterprise competitiveness. At the same time, we are promoting the research and development of new products and technologies. Currently, we have high-quality new energy products such as power batteries, cooling plates, cooling pipes, gearbox housings, circlips, wave springs, terminals, etc.

On the the 18th CPC National Congress, General Secretary Mr. Xi Jinping put forward the new development concept of innovation, coordination, green, openness, and sharing. ARN Group has deeply implemented it as an action guide to promote the fulfillment of social responsibility, continuously improving the corporate social responsibility management system. In 2023, we prepared the "Social Responsibility Report" for the seventh consecutive year, systematically summarizing the concept, behavior, and performance of ARN Group in adhering to people-oriented principles and promoting sustainable development to maximize comprehensive value in the past year, as well as its outlook for the new year. We hope that all parties can understand and know us.





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social responsibility report  
2022





# » Approaching Us

Chairman's Speech

Company Introduction

Company Organizational Structure

Legally Compliant and Honest Operation





## Chairman's Speech



Pan Yixin, Chairman of Anhui Ring New Group Co., Ltd

Dear stakeholders:

Thank you for your attention and support to the sustainable development of Anhui Ring New Group Co., Ltd. This is our seventh social responsibility report.

2022 was an extraordinary year. Affected by multiple negative factors such as repeated outbreaks of the epidemic, chip shortages, rising raw material prices, and declining sales of fuel vehicles, the automotive market had experienced ups and downs. Faced with profound changes in the internal and external environment and severe market challenges, ARN Group focused on technological innovation, building smart workshops, seizing market opportunities, and improving operational efficiency. At the same time, we accelerated the research and development of new energy vehicle parts and green transformation, safeguarding the beautiful home of harmonious coexistence between humans and nature, which had been widely recognized by all concerns of society and had delivered a satisfactory answer to society, government, customers, shareholders, and employees. In 2022, ARN Group witnessed growth against downtrend and achieved sales of 13.937 billion Yuan for the whole year, a year-on-year increase of 13.45%, and once again ranked the top list of 30 parts in China's automotive industry.

Tracing back to the development history of ARN Group, it could be traced back to 1953. In 1969, it began producing engine piston rings and officially set foot in the automotive parts manufacturing field. The first joint venture company was established in 1996, and the group operation model began in 1999. After 70 years of unremitting

efforts, we currently have 14 joint ventures and more than 20 wholly-owned and controlled subsidiaries, with over 7000 employees. All along, ARN Group has adhered to the business philosophy of "contributing to society, benefiting employees, and seeking long-term development for the enterprise", integrating social responsibility into the development of the enterprise, actively fulfilling responsibilities and obligations, striving to build an organizational collective with faith, responsibility, and warmth, and creating an evergreen foundation through stable governance.

In 2022, ARN Group increased investment in research and development, cultivated innovation teams, reformed innovation mechanisms, achieved the "dual wheel drive" of upgrading traditional internal combustion engine parts and innovating new energy technologies, and built an "Innovative ARN". We adhered to market rules and business ethics, focused on balanced resource allocation, and achieved common improvement of the entire value chain. At the same time, we continuously optimized the talent structure, improved the employee welfare guarantee system, achieved shared development results, built harmonious labor relations, and built a "Coordinated ARN". We actively responded and implemented the national "dual carbon" strategic deployment, comprehensively built national and provincial-level "green factories", elaborately created energy-saving, emission reduction, green and environmentally friendly automotive parts products, drove the green transformation of the upstream and downstream of the industrial chain, and built a "Green

ARN". We improved the openness of technology, processes, management mechanisms, and employment mechanisms, strengthened and expanded strategic cooperation with joint ventures, learned and integrated advanced foreign technology and management experience, accelerated overseas layout, and built an "Open ARN". The Party Committee of ARN Group insisted on donating money to help students, helping the poor, helping the construction of a beautiful countryside, encouraging employees to donate blood for free, fighting the COVID-19, delivering warmth and emotion, making the society more harmonious and beautiful, and built a "Shared ARN". Fulfilling social responsibility is not only an obligation that the group should fulfill, but also a necessary way to build soft power of ARN group and move towards globalization.

2023 is the beginning year for the comprehensive implementation of the spirit of the 20th National Congress of the Communist Party of China, and also a crucial year for ARN Group to promote the "14th Five Year Plan" goal of "doubling in five years and rebuilding ARN". We will consistently practice the five development concepts of "innovation, coordination, green, openness, and sharing", continuously improve corporate governance, prevent security risks, and firmly adhere to the path of ecological priority, green and low-carbon high-quality development. In the new year, we will embrace more partners with a more open mind and a more sincere attitude, continuously create value for a better mobile life for humanity, and stride forward towards the common vision of "Centuria ARN, International ARN, Billions ARN"!



## Company Introduction

**624 Cases**

Authorized 624 patents

**29 Items**

Lead or participate in the preparation of 29 national (industry) standards

**1**

The technology, quality, and sales volume of the company's main products rank first in China

**Top 100**

Top 100 China Machinery Industry Core Competitiveness  
Top 100 Anhui Province

**Top 500**

Top 500 China Machinery Industry  
Top 500 China Private Enterprises in Manufacturing Industry



Scan QR code to watch promotional videos



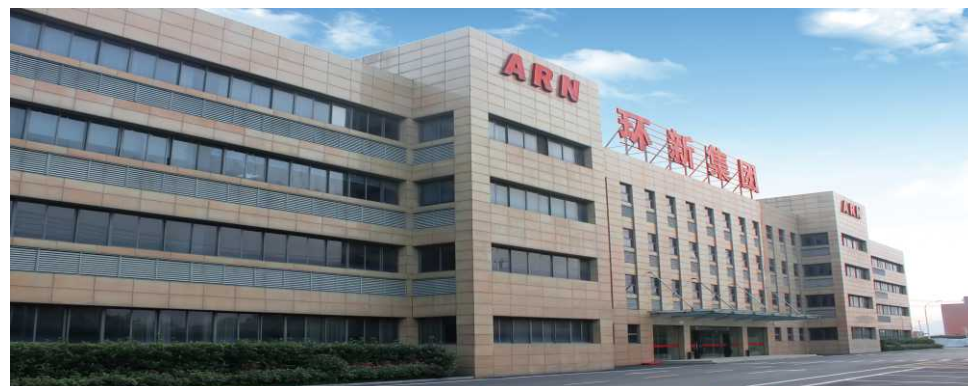
Scan the QR code to read more news and information

Anhui Ring New Group Co., Ltd. is a group enterprise engaged in the research and development, production, and sales of key engine components, new energy vehicle components, and special steel profiles. The main products include piston rings, valve seat rings and guides, pistons and piston pins, cylinder liners, engineering springs, sealing rings and resin rings, power batteries, automatic transmission housings, aluminum alloy structural components, die-casting parts, mechanical equipment, etc. The company's sales revenue in 2022 was 13.937 billion Yuan, a year-on-year increase of 13.45%.

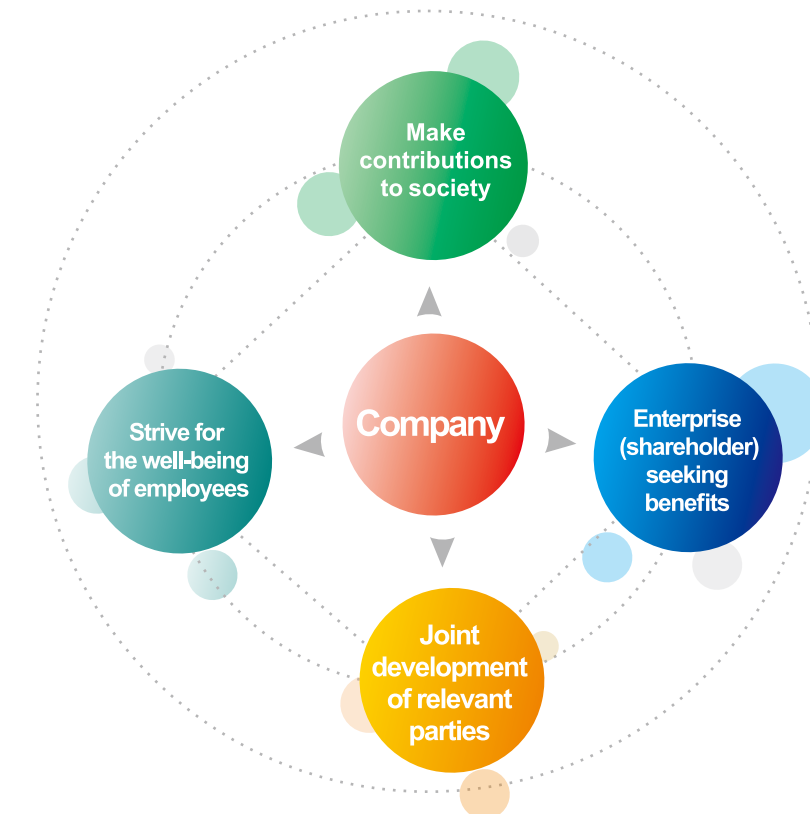
The company currently has 7151 employees, including 512 research and development personnel, specializing in materials science, mechanical engineering, casting materials, etc. In 2022, there were 34 research and development projects with a research and development budget of over 250 million Yuan. In recent years, it has obtained 624 patents. We participated in the co-construction of the "National Super-hard Materials and Products Engineering Technology Research Center", established 7 provincial-level research and development platforms such as the "Anhui Manufacturing Innovation Center" and the "Anhui New Energy Vehicle Parts Engineering Research Center", undertaken 8 major national and provincial science and technology projects, led or participated in the preparation of 29 national (industry) standards, won 1 national key new product, and 2

provincial-level science and technology progress awards, 20 provincial-level new and high-tech products, undertaken one key breakthrough project for the national industrial foundation project.

The technology, quality, and sales volume of the company's main products rank first in China. In the domestic market, the main engine market share of piston ring ranks first, reaching 53.3%; Exclusive domestic technology for aluminum cylinder liners, with a market share of 76.1%; The valve seat has the highest market share in the domestic main engine market with 51.3%; The piston fully replaces imports and is supplied to OEMs such as Toyota, Suzuki, JAC, Chery, etc; Special steel profile products are mainly used in high-performance automobiles, nuclear (hydraulic) electricity, aerospace, rail transit, medical and other fields. In the international market, products are exported to countries and regions such as Europe, America, Japan, South Korea, Southeast Asia, South Africa, etc., We had been recognized by the National Development and Reform Commission and the Ministry of Commerce as national automobile parts export base enterprises. Also we had been awarded honorary titles such as "Top 100 Anhui Province", "Top 100 China Machinery Industry Core Competitiveness", "Top 500 China Machinery Industry", "Top 500 China Private Enterprise in Manufacturing Industry", and "National Model Harmonious Labor Relations Enterprise".



## Business philosophy



## Development strategy

- Continuously leverage its own advantages and invest in areas such as lightweight engine components, energy-saving and emission reduction components, and new energy vehicle components.
- Strive to ensure that all parties involved in the cooperation obtain benefits that meet their own development needs and satisfaction.
- Promote local economic development and continuously improve the lives of employees.

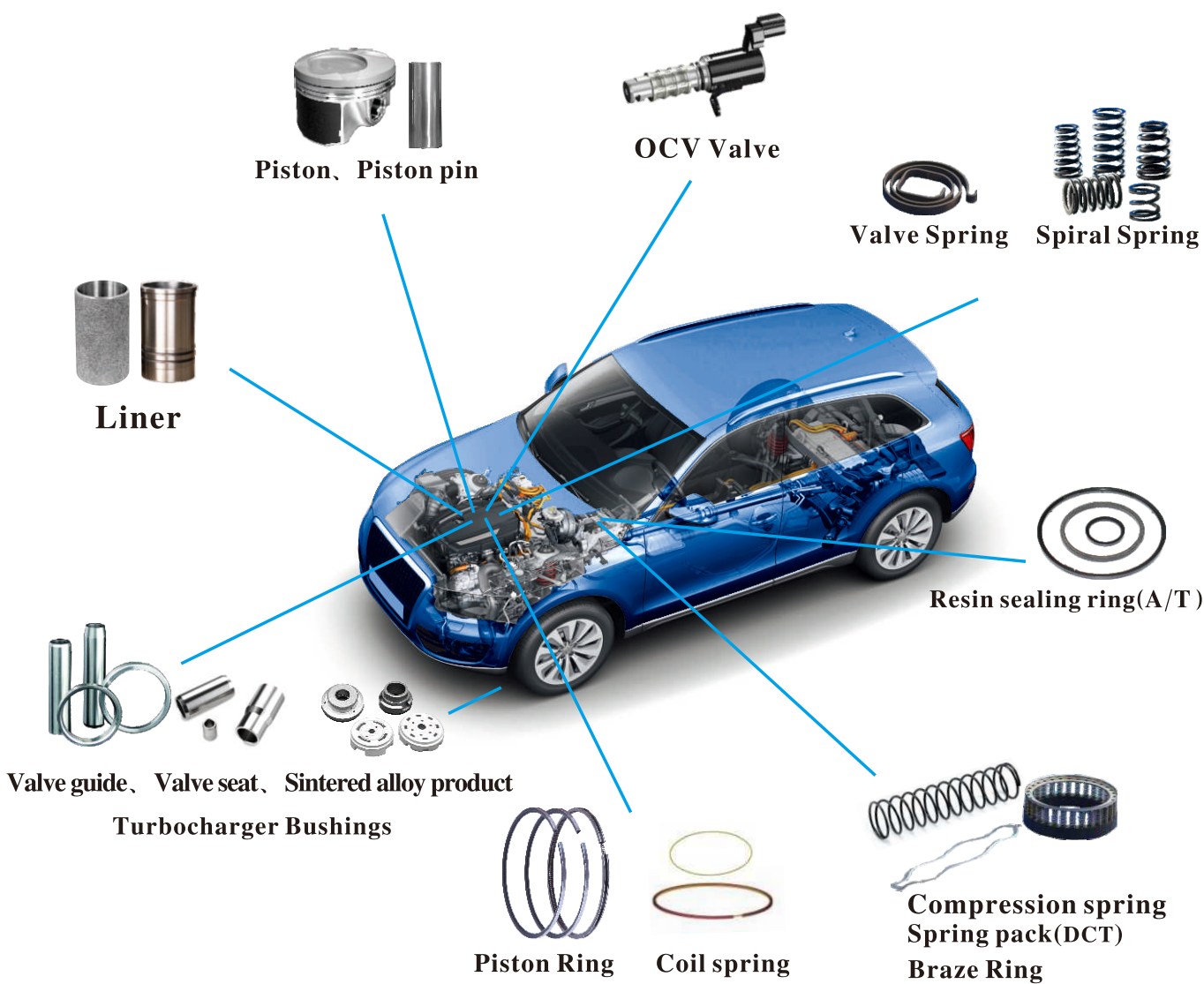
## Corporate Vision

**Centurial ARN, International ARN, Billions ARN**

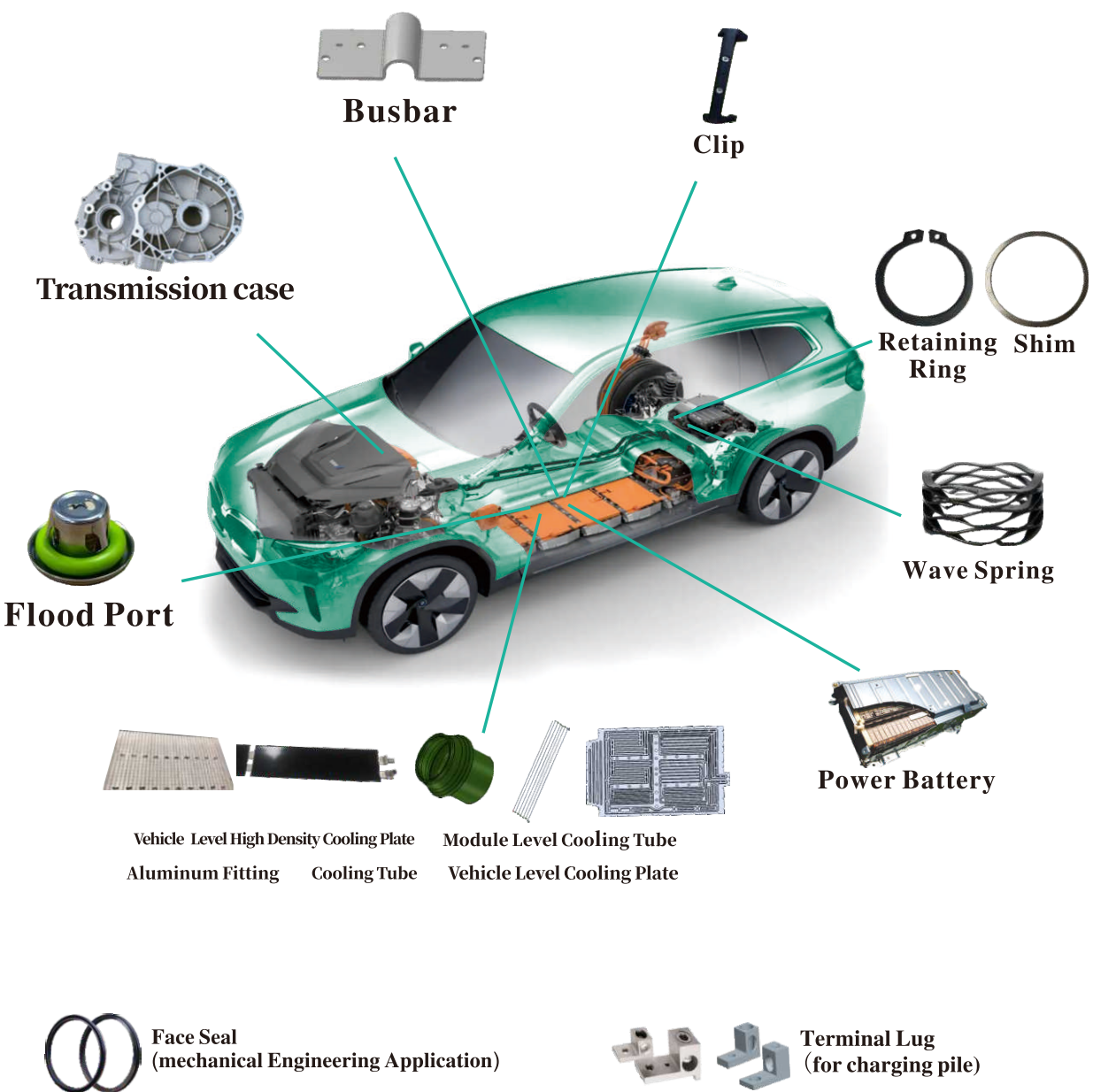


Company products

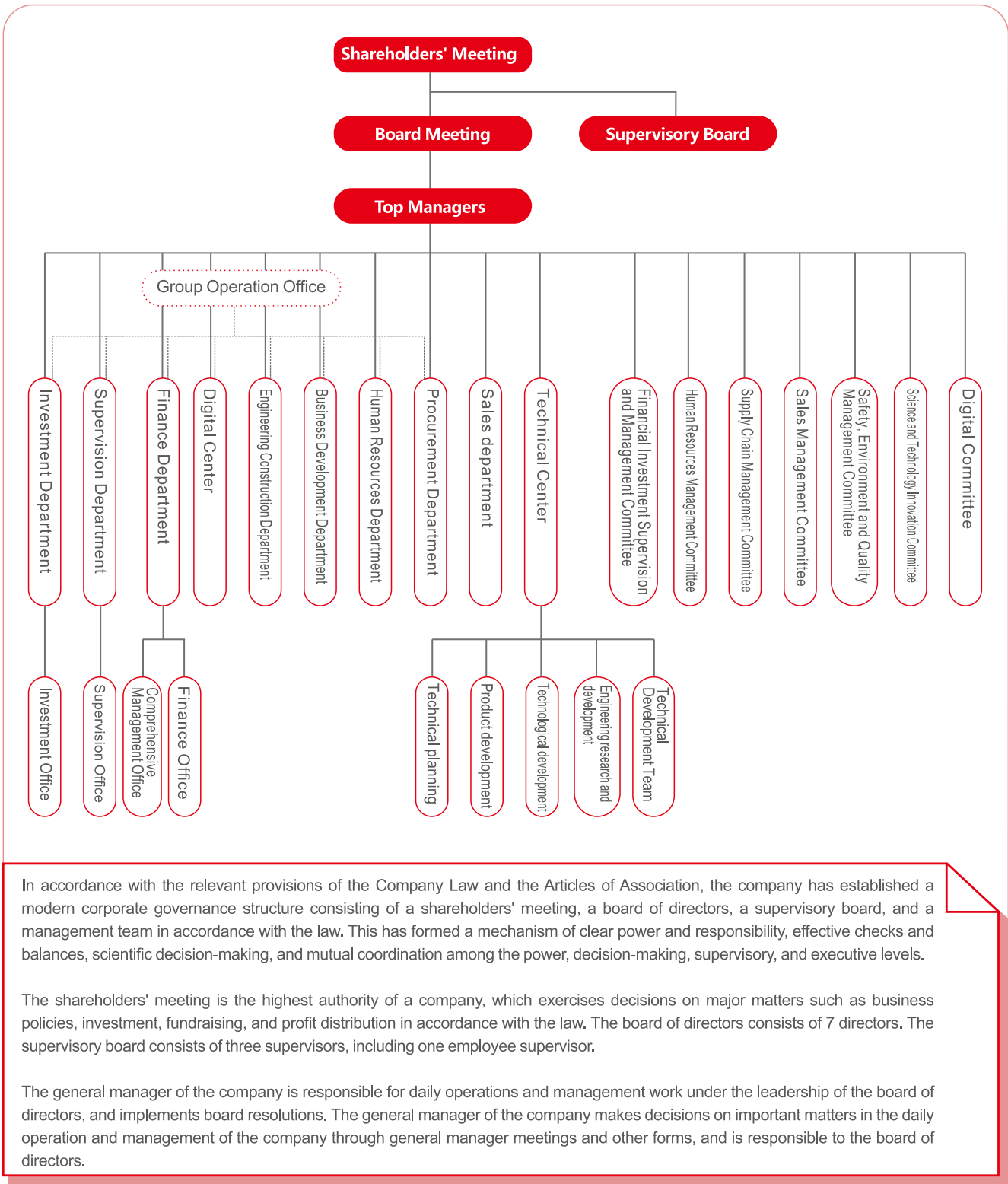
The field of fuel vehicles



The field of new energy vehicles



# Company Organizational Structure



# Legally Compliant and Honest Operation

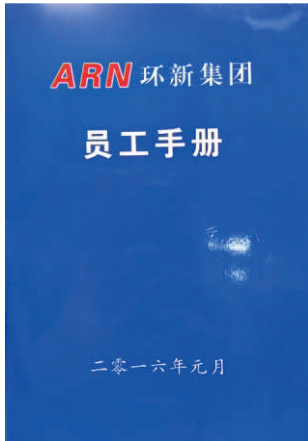
## Observing discipline and laws

The company respects laws and regulations, establishes and implements detailed rules for anti-corruption and compliance with laws, regulations, and normative documents to ensure the normal operation of the enterprise, prevent illegal activities, protect the legitimate rights and interests of the enterprise and employees, and integrate the expectations and needs of stakeholders into daily management and operation work.



## Compliant operation

As a commercial entity, the company adheres to honest operation, abides by business ethics, and complies with all applicable laws and regulations, regulatory regulations, industry standards, and rules and regulations in China and the countries and regions where the business is located. We also develops a compliance management system, integrates compliance requirements into various business and management processes, and standardizes various production and operation management activities. The company attaches great importance to creating a culture of compliance and integrity, requiring employees to strictly abide by national laws and regulations, business code of conduct, and company rules and regulations, carefully study and comply with compliance requirements related to their responsibilities, receive compliance training, actively identify, report, and prevent compliance risks, refuse violations, take responsibility for the compliance of their own behavior, and actively report violations.



## Credit history

According to the Implementation Measures for the Evaluation of Financial Trustworthy Enterprises in Anqing City, after evaluation by Anqing Intermediate People's Court, Municipal Housing and Urban Rural Development Bureau, Municipal Market Supervision and Administration Bureau, Municipal Taxation Bureau, Municipal Ecological Environment Bureau, Municipal Public Security Bureau and other departments, and recognized by the People's Bank of China, ARN Group was awarded the honorary title of "Financial Trustworthy Enterprise" of Anqing City in 2022.



## Credit rating

A-level tax credit enterprise

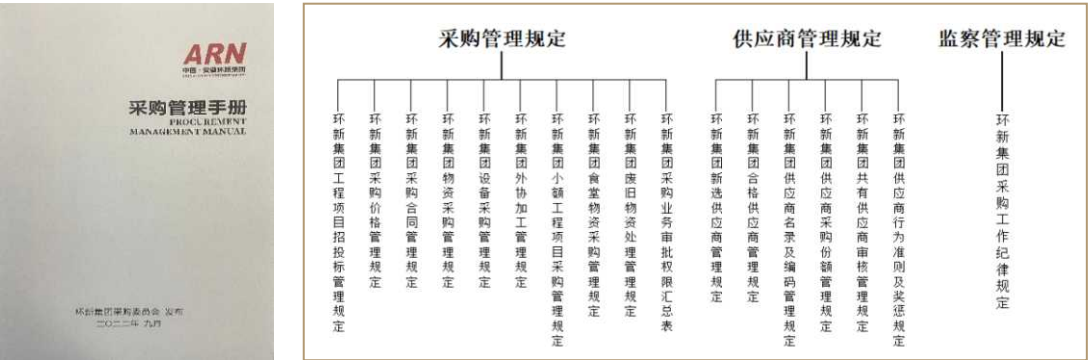


Strengthen the spirit of contracts and achieve a 100% signing rate for various types of contracts over the past three years

	2020	2021	2022	(Year)
Sales contract	100%	100%	100%	
Procurement contract	100%	100%	100%	
Other contract	100%	100%	100%	

Establish an open procurement system in accordance with the law and create a healthy and transparent procurement environment

In 2022, the company comprehensively sorted out the process from supplier management, procurement management, supervision and supervision, combined with the digital procurement system, revised 17 management documents, and prepared the "ARN Procurement Management Manual". At the same time, after legal review, 8 types of contracts have been improved, and the documents and contract terms cover social responsibility requirements such as legal employment, safety production, occupational health, integrity and self-discipline, making the procurement system healthier and more legal, and the process clearer and transparent.



Preventing legal risks, enhancing employees' legal awareness, and safeguarding the long-term development of enterprises

In 2022, the company regularly conducted anti-corruption education and training on a monthly basis, and revised the "Regulations on Procurement Work Discipline of ARN Group" in August; In October, a joint internal audit was conducted with the Finance Committee and the Digital Committee on various companies within the group. We continuously improve the management system for anti-corruption and commercial bribery by establishing standards, strengthening awareness, and conducting internal audits, in order to ensure the integrity and self-discipline of procurement personnel, the legality and compliance of procurement business, and the healthy operation of the procurement system.



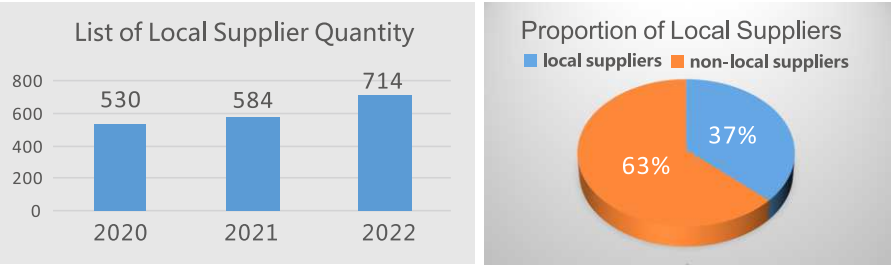
Integrity operation, establishing mutual trust, optimizing business ecology, and fulfilling social responsibilities

● ARN Group has always adhered to the concept of honest operation and win-win cooperation with suppliers. As of the end of 2022, the proportion of suppliers who have cooperated for more than 10 years has reached 61%;

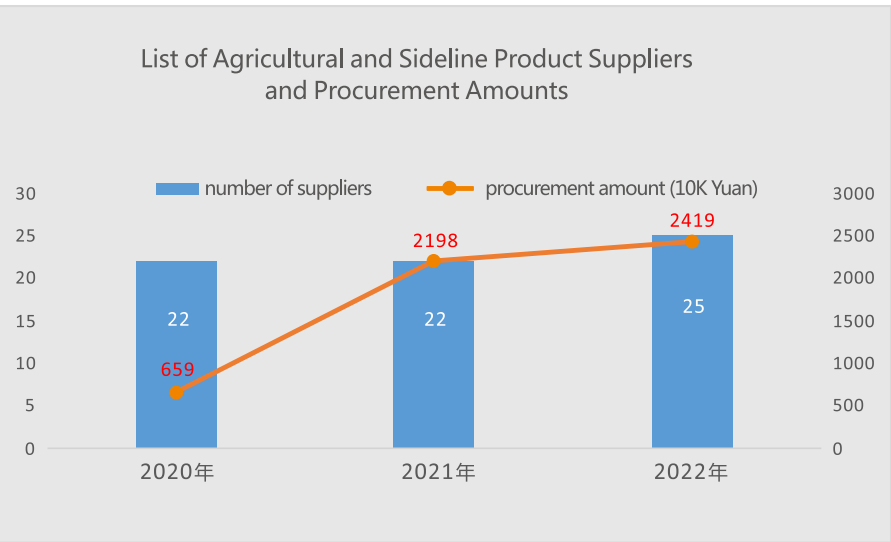
No	Items	2020	2021	2022
1	Total number of Class A & B material suppliers	65	65	66
2	Proportion of cooperative suppliers with more than 10 years (%)	55%	60%	61%
3	Number of strategic alliances	11	11	11

list of strategic alliances with related parties

● In order to promote the development of localized economy, increase the employment rate of localization, and increase the localization of supplier development, the localization rate of supplier development has reached 37% by the end of 2022;



● While actively fulfilling social responsibilities, the company requires and guides suppliers and distributors to fulfill their social responsibilities. In 2022, the company conducted on-site verification on the environmental impact assessment, operation, and hazardous chemical management from more than 10 suppliers on the list, ensuring product supply while enhancing their ability to fulfill social responsibilities. At the same time, the company also regularly purchases agricultural products from surrounding towns and actively supports rural revitalization work. In 2022, the purchase amount of agricultural products reached 24.19 million Yuan.



# » Responsibility Management



Social Responsibility Concept

Social Responsibility Organization Management

Institutional and Capacity Building

Organizational Implementation and Operation

Responsibility Supervision and Assessment



# Social Responsibility Concept

The automotive industry is a national strategic industry. As an upstream industry in the automotive supply chain, ARN Group, guided by the new development concept of "innovation, coordination, green, openness, and sharing" proposed by Secretary Xi, has established the social responsibility concept of "innovation leads development, quality leads brand, care for employee growth, safe and low-carbon development, and strive to repay society", leading the high-level development of enterprises.

**Innovation leads development**

**Quality leads brand**

**Caring for employee growth**

**Safe and low-carbon development**

**Strive to repay society**

# Social Responsibility Organization Management



## Top management

The company has established a leadership group for social responsibility work, with the general manager of the group serving as the team leader and two deputy team leaders, each served by the deputy secretary of the group party committee and the director of human resources. Its main responsibilities are to determine the management direction and goals of the company's social responsibility work, approve the overall promotion plan of the company's social responsibility work, and make decisions on major issues.

The human resources department of the company is responsible for coordinating the overall work of social responsibility, including the preparation and issuance of social responsibility reports. According to the social responsibility management model, the company has established corresponding social responsibility management systems to standardize and guide the internal practice of social responsibility workflow within the enterprise.



## Responsible organization

### Leading Group for Corporate Social Responsibility Work

- Team leader - served by the company's general manager
- Deputy Team Leader - Served by the Deputy Secretary of the Company's Party Committee and the Director of Human Resources respectively

### There are 8 sub groups responsible for each functional work:

1. The finance team is responsible for investment, financial management, etc
2. The technology Innovation Group is responsible for the development of technology innovation, etc
3. The quality team is responsible for quality management, product quality control, etc
4. The security team is responsible for green development, harmonious development, etc
5. The harmonious labor relations group is responsible for corporate culture, harmonious labor relations, etc
6. The social welfare group is responsible for social welfare activities, caring for vulnerable groups, etc
7. The supplier management team is responsible for supplier management, establishing a public procurement system, etc
8. The digital team is responsible for building digital platforms and implementing intelligent management



# Institutional and Capacity Building

## Establish a system for fulfilling social responsibility and information disclosure, and operate in accordance with the system regulations

ARN Group strictly adheres to the relevant provisions of the Company's Articles of Association and Business Division Standards, and establishes a promotion system for fulfilling social responsibilities. At the same time, through shareholder meetings, employee meetings, business meetings, customer events, group websites, internal informational publications, etc., regular and timely reports on the company's production, operation, and performance of responsibilities are provided to shareholders, customers, employees, and society.

## Develop and implement a social responsibility training plan

The company has developed a systematic social responsibility training plan, actively participating in social responsibility training meetings and activities held by the Anhui Industrial and Economic Federation. Based on the company's own development characteristics, experts are invited for training and guidance, and advanced domestic social responsibility management concepts are selectively introduced. At the same time, the company regularly conducts all staff social responsibility training and activities on the platform of all staff training work, and through the company's "ARN Newsletter", "WeChat public platforms", company websites, and other channels to enhance the awareness of social responsibility among all employees.



## Regularly release social responsibility reports

Since 2017, ARN Group has regularly released social responsibility reports for the seventh consecutive year and has been awarded the "Best Social Responsibility Report" for multiple times in Anhui Province. Its performance in 2021 has been included as an excellent case in the "China Industrial and Information Technology Sustainable Development Case Collection". In 2023, ARN Group prepared the "2022 Corporate Social Responsibility Report" to continuously enhance communication with various stakeholders.

## Stakeholder communication and participation

### Establish communication and participation mechanisms

ARN Group regularly holds a series of stakeholder communication meetings, including shareholder meetings, board meetings, supplier meetings, dealer annual meetings, trade union committees, and employee symposiums. At the same time, actively participate in relevant meetings organized by the government, and regularly report to the government, submitting relevant statistical and responsibility reports. The company regularly collects the concerns of various stakeholders, and promptly processes and provides feedback on the information.

Stakeholders	Stakeholder concerns	Participation methods
investor	Improve profitability, maintain and increase asset value, standardize operations, and avoid operational risks	Regularly convene shareholders' meetings
user	Stable and reliable product quality, safe and stable supply, product prices and services	Contracts, agreements, and regular dealer annual meetings
staff	Democratic rights, occupational health and safety, salary and benefits, personal growth, education and training	Regularly hold employee symposiums
supplier	Honesty and trustworthiness, long-term cooperation, and expanding the market	Contracts, agreements, and regular supplier meetings
government	Comply with laws and regulations, ensure taxation, ensure safe production, and provide employment	Relevant meetings, work reports, statistical report information submission, and high-level communication
community	Harmonious community construction, public welfare, safety and environmental protection	Public welfare activities, green production, and proactive communication with the community
media	Enterprise development trends, major events	ARN Newsletter, internal and external networks of the company, WeChat public platform

### Stakeholder comments:

Anhui Ring New Group Co., Ltd. has become a well-known enterprise in Anhui Province with strong technical strength, advanced management concepts, and good commercial reputation. In 2022, guided by the five development concepts of "innovation, coordination, green, openness, and sharing" proposed by Secretary Xi, ARN Group established a social responsibility strategy of "honest operation, green intelligent manufacturing, caring for employees, and giving back to society", established a dedicated social responsibility management organization and leadership group, strengthened the management and action of the group's social responsibility, and ensured closed-loop management from strategy to execution. This is the seventh social responsibility report released by ARN Group, which truthfully and succinctly discloses the performance achieved by ARN Group in innovative development and fulfilling social responsibilities, showcasing ARN Group's good corporate social citizen image. As a strategic partner of ARN Group, Bomai Licheng Investment (Shanghai) Co., Ltd. has witnessed the development process of ARN Group and can also see the great prospects of "Centurial ARN, International ARN, Billions ARN". We sincerely hope to work hand in hand with ARN Group to achieve coordinated development and make the enterprise bigger and stronger. In the future, we will better fulfill our social responsibilities and make greater contributions to promoting industry development and giving back to society.

Related party: Bomai Licheng Investment (Shanghai) Co., Ltd  
January 20, 2023

#### 利益相关方评价

安徽环新集团股份有限公司以雄厚的技术实力、先进的管理理念、良好的商业信誉而成为安徽省知名企业。2022年，在习总书记提出的“创新、协调、绿色、开放、共享”五大发展理念引领下，环新集团确立了“诚信经营、绿色智造、关爱员工、回馈社会”的社会责任战略，设立了专职的社会责任管理机构和领导小组，加强了集团社会责任的管理和行动，保证了从战略到执行的闭环管理。这是环新集团发布的第七份社会责任报告，真实、简练的披露了环新集团在创新发展、履行社会责任方面取得的绩效，展示了环新集团良好的企业社会公民形象。

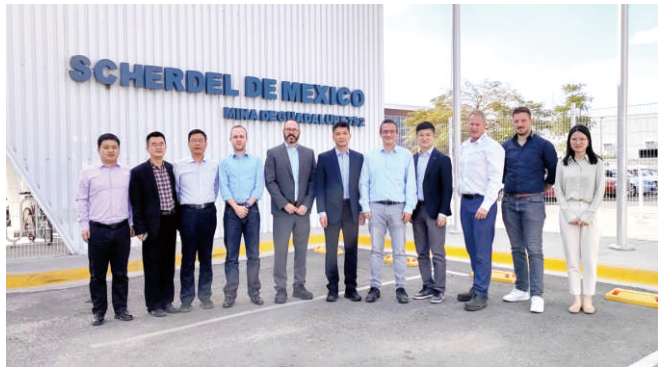
博迈立诚投资（上海）有限公司作为环新集团战略合作伙伴，见证了环新集团发展历程，也能看到“百年环新、国际环新、千亿环新”的远大前景，我们真诚希望与环新集团携手并肩、协同发展，将企业做大做强。今后更好的履行社会责任，为推动行业发展、回馈社会做出更大的贡献。

相关方：博迈立诚投资（上海）有限公司  
2023年1月20日





■ Examples of Major Communication Activities



- |   |   |
|---|---|
| 1 | 2 |
| 3 | 4 |
| 5 | 6 |
- 1 Shareholders' Meeting
  - 2 Board meetings
  - 3 Employee symposium
  - 4 High-level communication with partners
  - 5 On behalf of the company, Cao Lixin, Secretary of the Party Committee and General Manager of the company, jointly read out the proposal of "Seeking Development and Expecting Me" with entrepreneurs at the first Anqing Business Promotion Conference
  - 6 Conduct a symposium with representatives from overseas partners

- |   |   |
|---|---|
| 1 | 2 |
| 3 | 4 |
| 5 | 6 |
- 1 Company leaders go abroad to enhance communication with international partners
  - 2 The first municipal talent workstation settled in ARN Group
  - 3 As an executive director unit, invited to participate in the establishment conference and the first member representative conference of the Municipal Human Resources Service Association
  - 4 Deepen cooperation and sign an annual production of 470 million automotive engineering springs and new energy components project with the German Scherdel Group
  - 5 Invite customers to the company for face-to-face communication
  - 6 The "China Intelligent Manufacturing Practice Team" led by teachers and students from City No.1 Middle School, visited and exchanged ideas with the company



# Organizational Implementation and Operation

The company formulates annual social responsibility goals and implementation plans that are in line with the actual situation of the enterprise, and organizes their implementation. Based on feedback from implementation and supervision, the company timely improves the social responsibility system and operating mechanism, continuously improving its performance in fulfilling its responsibilities.

## Strategic planning

The company holds two board meetings each year, sets the next year's social responsibility strategic goals at the end of the year, and formulates a mechanism for implementing and ensuring social responsibility work.

## Annual plan

Divide according to the modules of innovative development, coordinated development, green development, open development, and shared development, propose specific work goals and responsibilities, and prepare an annual plan for social responsibility work.

## Specific implementation

Develop a monthly work progress table, decompose and refine the work, and each team will promote the implementation of the target work content.

## Evaluation and feedback

The company holds a performance meeting for the previous month at the beginning of each month to track the implementation of various indicators for the previous month; At the beginning of each year, a board meeting is held to track the performance of the previous year. Based on the above two meetings, determine the content of performance evaluation, year-end evaluation, result feedback, etc., and complete the entire evaluation work. Implement rewards and punishments based on the evaluation results, and revise the strategic planning objectives and annual plan content based on actual performance.

# Responsibility Supervision and Assessment

## Supervision mechanism

The company has established a supervision mechanism for fulfilling social responsibility, and the social responsibility working group leads its members to regularly inspect and evaluate the social responsibility systems, measures, and effectiveness of various functional departments of the company. Improve management effectiveness through monthly visits and certifications, as well as peer-to-peer on-site inspections. At the same time, the following risk prevention measures have been implemented:

01

### Construction of legal risk prevention system

The company strictly adheres to the management philosophy of "governing enterprises according to law" and "operating in compliance", and there were no violations of competition law in the company during the year 2022.

02

### Construction of a clean risk prevention and control system

Based on the improvement of the party affairs, factory affairs, and integrity risk prevention and control system, with information construction as the means and information exchange as the focus, a comprehensive supervision network has been built by integrating resources such as internal party supervision, mass supervision, functional supervision, special supervision, and third-party supervision.

03

### Assess risks, strengthen auditing, and improve management systems

The company discloses financial information in accordance with the requirements of various external regulatory agencies such as tax, finance, and other company regulatory authorities, vigorously promotes financial informatization work, proactively plans risk control in advance, and actively prevents and controls financial and tax risks.

04

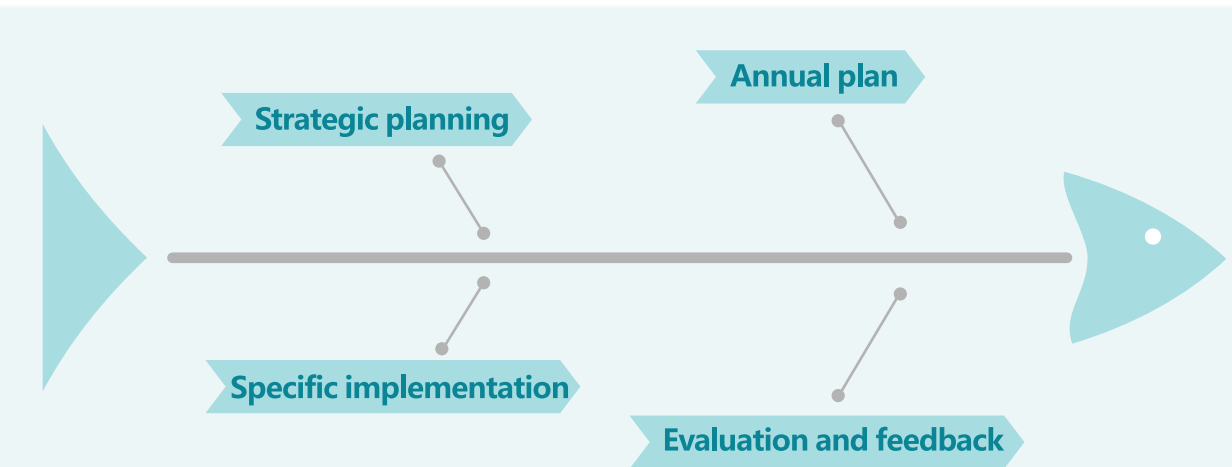
### Promoting innovation and respecting intellectual property achievements

The company adheres to the policy of "encouraging creativity, effective utilization, legal protection, and scientific management" to further improve the intellectual property management and protection system. In 2022, the company did not experience any intellectual property infringement incidents.

## Performance management



The company believes that social responsibility performance management is a refinement of the existing integrated management of the company. During the reporting period, the company improved its performance management mechanism and, based on past performance management experience, combined with the actual operational requirements of the company, organized various subsidiaries (functional departments) to jointly discuss and develop an annual integrated performance management plan. Moderate optimization and innovation will be carried out in indicator design, weight allocation, and control mode, and key performance indicators will be established. Key performance indicators will be incorporated into the existing assessment system to assess various functional departments, directly linked to performance assessment scores. (Key Performance Table on page101)





# » Responsibility Performance



## Innovation Driven

Casting excellent products and promoting intelligent transformation

## Coordinated Development

Broaden employees career and gather ARN new forces

## Green Revolution

Implementing low-carbon strategies and safeguarding natural ecology

## Open Governance

Deepen win-win cooperation and sailing international journey

## Sharing the Future

Collaborate with industries for creation, Cooperate with society for symbiosis

# ARN





## » Responsibility Performance Innovative Driven

Casting excellent products and promoting intelligent transformation

### 2022 Innovation Investment Amount

Total Investment	Investment in NE field	Ratio
<b>1.003</b> Billion	<b>812</b> Million	<b>81.44%</b>

In 2022, the total investment of ARN Group was 1.003 billion yuan, with 812 million yuan invested in the new energy field, accounting for 81.44% of the total investment.

## Innovative Layout

### ■ Investment direction



The company will continue to introduce intelligent and digital equipment in equipment investment based on long-term strategies to maintain further business growth; In terms of new projects, we will continue to leverage our own advantages and invest in areas such as lightweight engine components, energy-saving and emission reduction components, and new energy vehicle components.

The investment amount will be controlled within the allowable range of operating cash flow. Projects that can leverage the advantages of ARN Group will be strictly selected as investment projects, and strict quantitative standards will be used to strive to improve the return on investment.

The current investment projects of the company comply with national industrial policies. The company has a strict and standardized investment process. Before investing in a project, it is necessary to conduct market research on the project products, determine their market prospects and socio-economic benefits, and invite qualified intermediaries in the industry to conduct a project feasibility analysis and issue a "Project Feasibility Report". Before the project begins, prepare the Environmental Impact Report, Energy Assessment Report, and Safety Assessment Report for the invested project, and obtain environmental impact assessment approval, energy assessment approval, and safety assessment approval. The above measures ensure that the company's investment projects comply with the requirements of national policies and regulations and achieve social and economic benefits.

### ■ Proportion of technical talents and treatment

#### Technical talents account for 15%.



#### Incentives



In 2022, the salary of technical personnel positions was established. After the position salary was realized, the average monthly salary of frontline technical personnel increased by about 10%.



Position promotion and rank promotion are inclined towards technical positions with outstanding work performance.



Significantly increase the amount of technical achievement improvement bonuses to motivate technical personnel to promote the development of secondary products.



## Product Technology Innovation

### Introduction to Innovation Field and New Energy Products Field

Faced with the accelerated development of the automotive industry towards new energy, the company has gradually formed six research areas through continuous technological innovation and development in scientific research, namely: battery pack field, motor system, electronic control system, battery materials, traditional internal combustion engine components, and automatic speed converter field. We have established a mature technology evaluation system, improved a controllable, traceable, and closed-loop management research system, and effectively improved the level of research management.

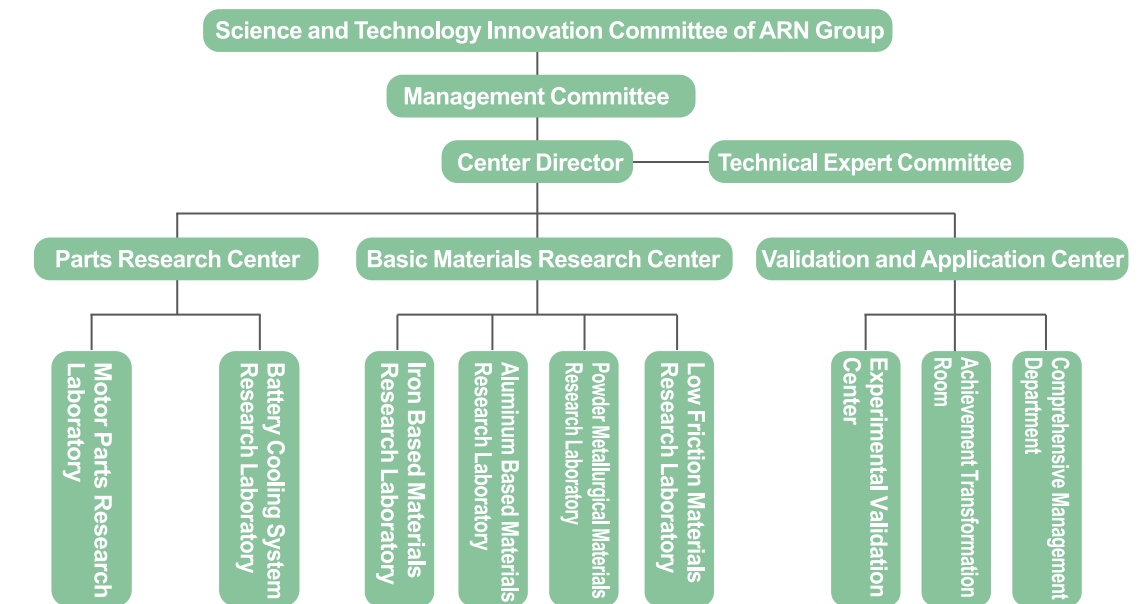


### Construction of R&D System and Operational Mechanism

#### Strengthen technological innovation

##### Establish a sound scientific and technological innovation system

Adhere to technological innovation as the key to enhancing the core competitiveness of the industry, improve organizational structure, and accelerate the construction of the "birthplace" of original technologies.



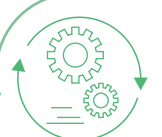
##### Cultivate the "birthplace" of original technology

Actively cultivate the "birthplace of original technology" around the advantageous areas of the group, and bravely undertake national, provincial, and ministerial level scientific research projects.



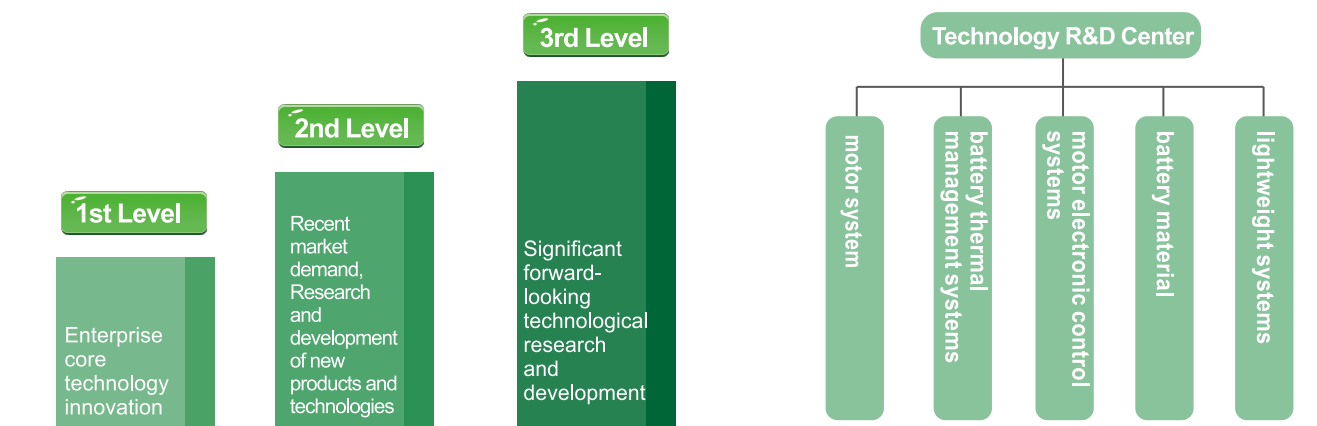
##### Promote the construction of innovation consortia

Lead the establishment of an innovation consortium to provide important support for promoting key core technology breakthroughs. Collaborate with various forces such as universities and research institutes to build industry, academia, and research. By utilizing a deep integration innovation mechanism, guided by demand and targeted by application, we aim to consolidate responsibility and collaborate to promote the construction and operation of innovative consortia.



## Construction of R&D Center

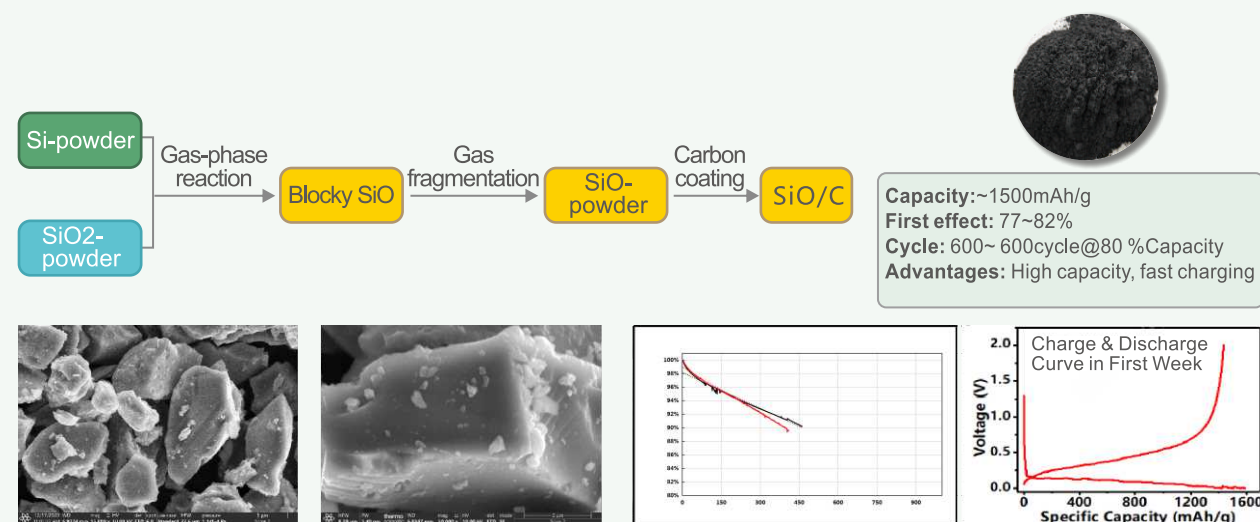
Oriented by the market and centered around the research and development center, we carry out research and development at three levels and five major projects in the group. Mainly focusing on tackling the bottleneck technology issues of new energy vehicles, we develop innovative technologies and products such as battery thermal management systems, motor electronic control systems, and lightweight systems, and apply relevant achievements to the member units of the center to achieve the transfer, transformation, and industrial application of scientific and technological achievements. The R&D center organizes and implements over a hundred scientific research and technological research projects every year, completes the development of over 100 new products, technologies, and processes, and achieves over a hundred innovative achievements, with a conversion rate of over 80%.



## Implementing Green and Low-Carbon Requirements, Developing towards New Energy, and Developing New Technologies and Products

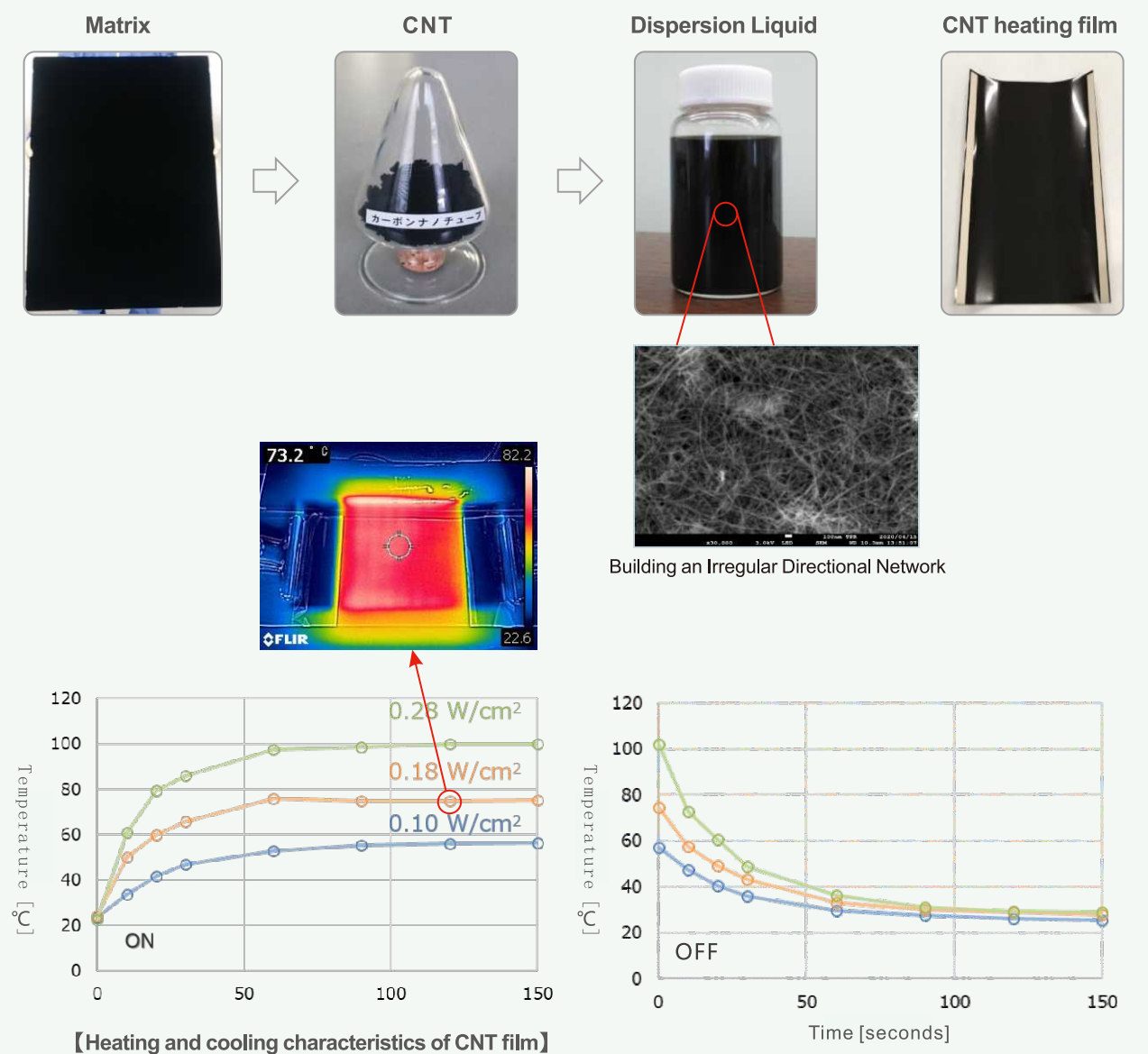
### High performance battery negative electrode material SiO/C

In recent years, with the proposal of carbon peaking and carbon neutrality goals, the trend of vehicle electrification has become increasingly clear. At present, carbon materials are the most widely used in the field of negative electrode materials. However, the theoretical specific capacity of carbon materials is only 372mAh/g, and there is no room for improvement. With the increasing demand for battery energy and power density, high specific capacity silicon oxide negative electrode materials are an important strategy to achieve this goal.



### Carbon nanotube heating film

With the development of flexible electronic technology, the demand for environmentally friendly, safe, low-cost, and mass-produced electric heating materials that efficiently solve thermal management problems continues to grow. CNT high-performance heating film can be used for the pre-heating system of new energy vehicle batteries, which can quickly heat the battery to the optimal working temperature in low-temperature environments; It can also be used in aircraft anti-icing systems to solve the problem of wing icing during high-altitude flight; CNT heaters are much lighter than conventional metal heaters, save energy, resist corrosion, and have a long service life.



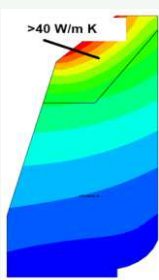


Surface Coating (Plating TIM) Technology

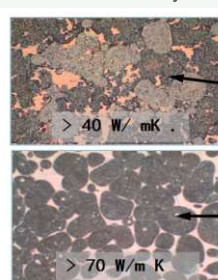
TIM Coating Products



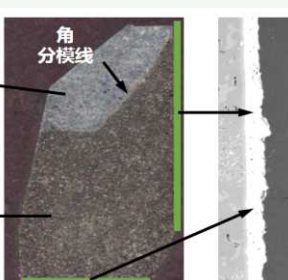
Temperature



Copper penetration  
valve seat layer

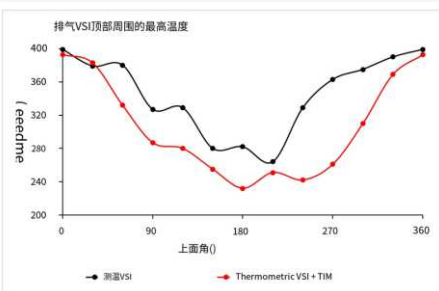
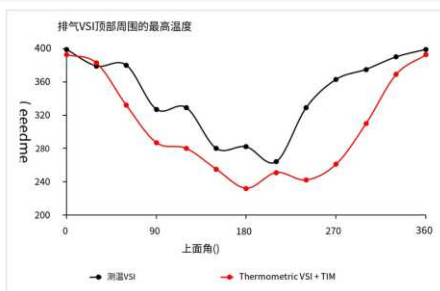


OD TIM



HTC back layer

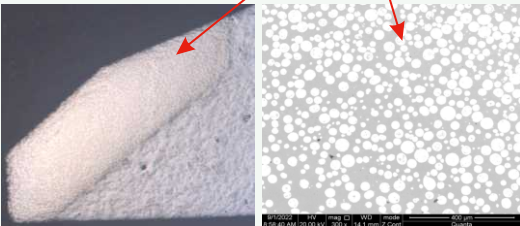
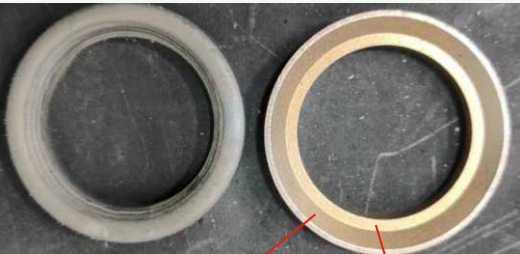
TIM bottom



- Improving fuel efficiency
- Reduce the wear rate of components
- Reduce the risk of collisions
- Reduce component costs
- Increase power output without changing engine design

Laser additive manufacturing

Laser cladding is a metallurgical bonding layer that uses a high-energy laser beam to irradiate the surface of a metal matrix according to the working conditions of the workpiece, allowing the thin layer of the metal substrate surface of the workpiece to interact with the alloy powder on it. After rapid melting and solidification, it is prepared with special physical and chemical properties such as high hardness, good wear resistance, and corrosion resistance. Thus improving the sealing between the valve seat and the valve, making combustion more complete. It is one of the important paths for the development of low-carbon engines.



TIM coating product

Scanning electron microscopy  
of the cladding additive layer

- The thickness of laser additive is uniform, and it is combined with a high thermal conductivity matrix in a serrated metallurgical manner. The additive layer is dense and defect free, and the microstructure is Ni-Cr dendrite+WC wear-resistant phase
- There is no obvious transition layer between the additive and the matrix, and the dilution rate is extremely low, ensuring the performance of the additive layer

Innovation Achievement Conversion Rate

In 2022, ARN Group hosted and participated in undertaking 7 national and provincial level scientific and technological projects and obtained 20 new products at or above the provincial level.



7 cases

National level projects



29 cases

Develop national and industry standards



20 cases

new products at or above the provincial level

In 2022, the group applied for 236 patents; 127 patent authorizations.

93

Invention Patent

236

Patent application  
by the group

143

Utility model

127

patent authorizations



## Cultivate Fertile Soil of Quality

### Product quality management system and implementation, supervision and random inspection, and qualification rate

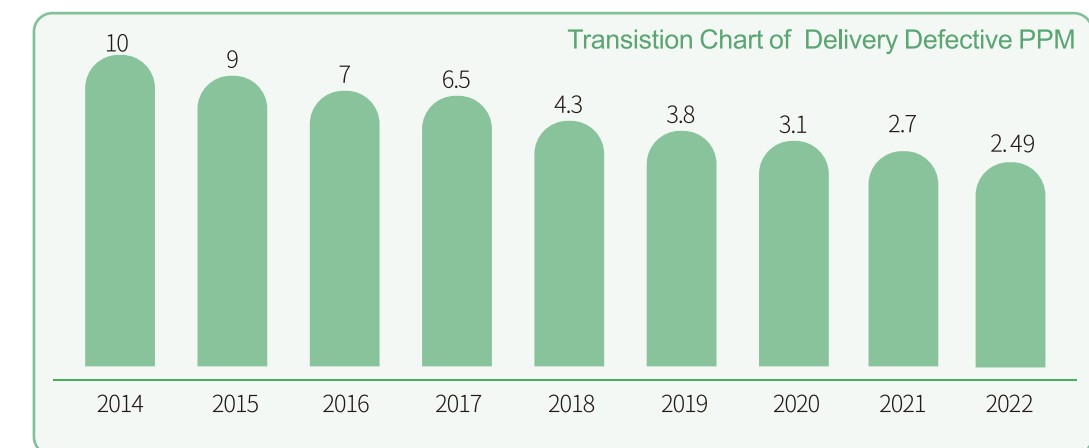
- Since its establishment, ARN Group has established a business strategy of "being the first in China and the world's first-class", and has put forward quality goals of "zero quality defects and zero customer complaints" around this strategy. It closely focuses on improving customer satisfaction and building a quality management system, and focuses on problems in the market and production site. Through positive and negative prevention and systematic improvement, it promotes product quality improvement and actively innovates various management methods, ensures the effective operation of the quality management system and comprehensively improve product quality.
- In 2010, the company established a Quality Management Committee, which is based on involvement of full staff, full process and scientific evaluation; regular inspections of the system, products, processes, and quality are carried out to verify the effectiveness of the implementation of the quality management system. Quality improvement activities are carried out through the extensive application of quality tools such as QC teams, self process completion, and Six Sigma. We also invite renowned teachers from institutions such as DNV and KraiG, as well as experts from major automotive OEMs, to provide comprehensive training for management personnel and grassroots backbone through online and offline training. Every year, we also assign R&D, process, equipment, production, and quality backbone personnel to study the latest technology and management methods abroad, effectively improving the quality level of the system, products, and services.
- In promoting the construction of the internal auditor team in enterprises, nearly a thousand people had received certification training for various types of internal auditors by 2022, and over 300 people participated in various quality training in 2022.

#### Special training from third-party institutions



- In the production and manufacturing process, the company continues to promote the application of workshop management systems through the application of new technologies, equipment, and tools, as well as cooperation with suppliers such as Huawei, to improve the automation and digitization level of production lines, and to ensure the quality consistency and stability of the production process from a hardware perspective. Further promoting the establishment and use of information-based and intelligent quality control methods, such as QMS quality management system, automatic data collection system, precise traceability system, and visual Kanban, has strengthened the entire process quality control. In 2022, the OA system quality module process was standardized, and currently 11 quality management processes have been implemented online.

- At the same time, based on the analysis of the quality system process, measures have been formulated to address risks and opportunities. Each management department identifies and analyzes their own risks and opportunities based on their own activities, products, and service processes, and formulates corresponding measures to avoid, reduce, and eliminate risks. Efforts are made to launch new technologies and products, develop new markets, new customers, and establish partnerships to address new developments and opportunities; The Product Technology and Production Technology Department is responsible for organizing the preparation of DFMEA and PFMEA, and risk analysis covers various lessons learned from product recalls, product audits, complaints, scrapping, and rework. All processes need to form recorded information as evidence of risk analysis results. The first pass rate of products delivered to the customer assembly line remains basically stable at 100% (delivery of defective PPM), and the customer market feedback of defective PPM remains below 5, at a leading level in the industry.



- Every year, the company has achieved dozens of QC improvement results, involving cost, efficiency, quality, and other aspects. It has participated in the release of results from domestic, provincial, customer, and overseas parent companies multiple times. Its subsidiary companies have been awarded titles such as "Excellent Enterprise in National Machinery Industry Quality Management Group Activities" and "Excellent Enterprise in Anhui Province Quality Management Group Activities", and have been widely recognized by customers.

In the 2022 QC activities, a total of 189 QC teams were established, including various subsidiaries, to solve 221 problems, with an improvement amount of up to 15501K Yuan.



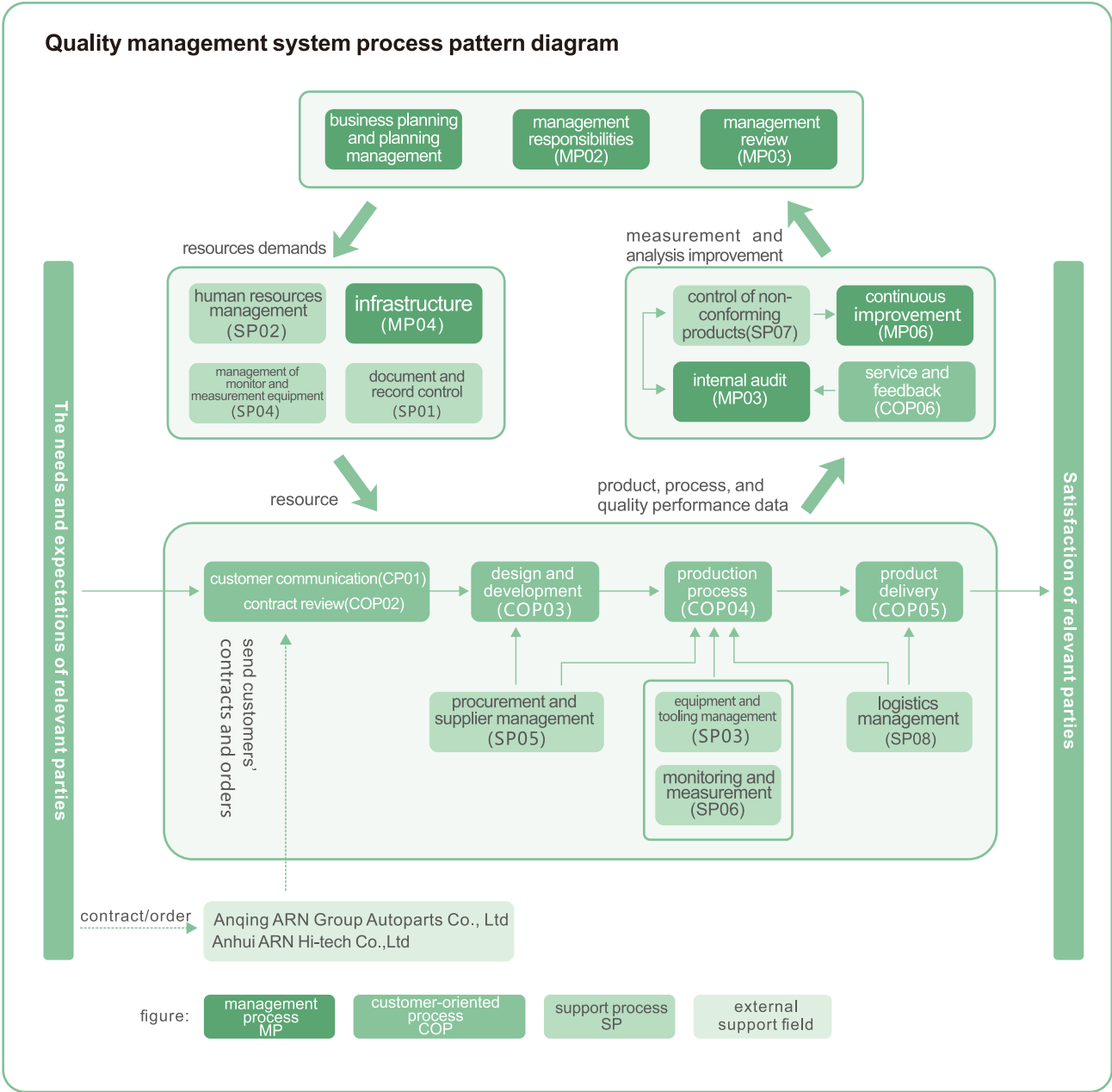


## Quality Third-party certification

- Quality management is the focus of company management. Since the late 1990s, the company has gradually introduced, improved, and implemented quality, environment, occupational health, and measurement management systems, forming multiple system operation modes such as ISO9001, ISO14000, VDA6.1, QS9000, OHSAS18000, TS16949, ISO10012, IATF16949, ISO45001, etc. In 2020, the group company also passed the laboratory accreditation of the China National Accreditation Commission for Conformity Assessment, Obtain CNAS certificate.



- The company integrates the core values of the enterprise into the requirements of quality system management, supported by quality manuals and procedural documents, conducts management reviews, internal audits, and other activities, implements KPI target management, and conducts performance evaluations.
- In the operation of company management activities, comprehensive quality management is carried out and the PDCA process management method is applied. The quality management system is scientific and effective, laying the foundation for ensuring quality (as shown in the figure below).





## ■ Provide complete and accurate product information, transparent pricing and billing information

The company always focuses on customer needs, and the focus of all work is to satisfy or exceed customer expectations.

- In 2022, we visited or invited customers to the company's product design, testing room, and manufacturing site, communicated with customers about new processes, technologies, and functions, established a testing platform with customers to demonstrate the excellent performance of products, and allowed customers to freely share the testing data of the company's technology center; which made customers fully believe that our products are of high quality.
- In 2022, the company further established a strong project management team, in accordance with APQP management requirements, utilizing project management software to fully communicate with customer departments in various processes such as technical specifications, quotation, bidding, design, manufacturing, sales, and after-sales service. This means that product planning, delivery, and after-sales service are fully transparent, allowing customers to fully understand and trust.

与客户现场交流



Communicate with customers on-site

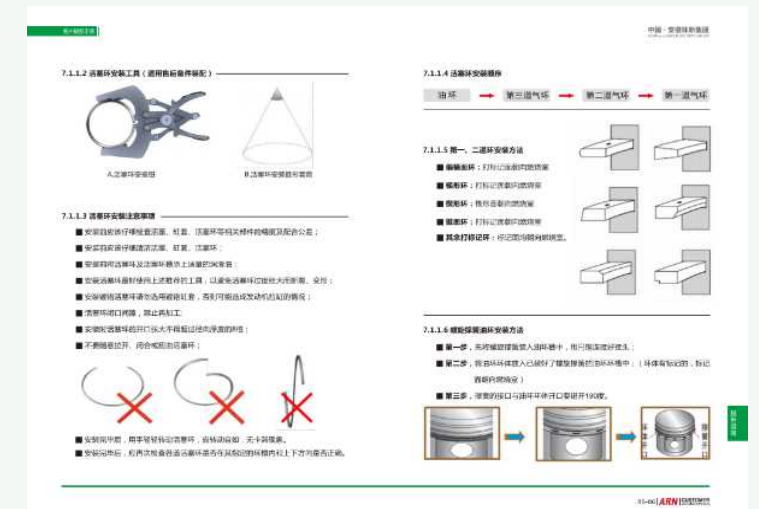
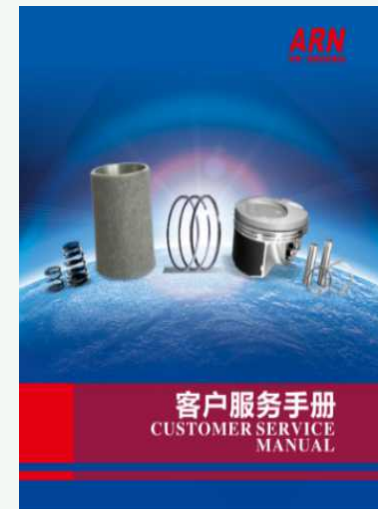
## ■ Inform customers of the correct usage methods and warning risks of the product

In 2022, the company improved the product user manual, providing instructions on the packaging, storage, installation, usage, and maintenance of components, and informed customers of the product's usage scenarios and potential risks arising from improper use.

Regularly conduct operational training at the customer's site, informing them about product storage management, installation and usage methods, as well as inspection, analysis, and handling methods in case of problems. Present on-site demonstrations to customers on the risks arising from improper use.

Communicate directly with customers face-to-face, understand their needs and practical problems encountered, provide on-site countermeasures and explanations based on their needs, and solve the problems they face.

In the past 5 years, over 200 on-site training have been organized for customers, and countless clients have been invited to the company for on-site training. Excellent distributors have also been organized to study and train at overseas parent companies. As of December 31, 2022, the OEM customer training rate has been 100%.





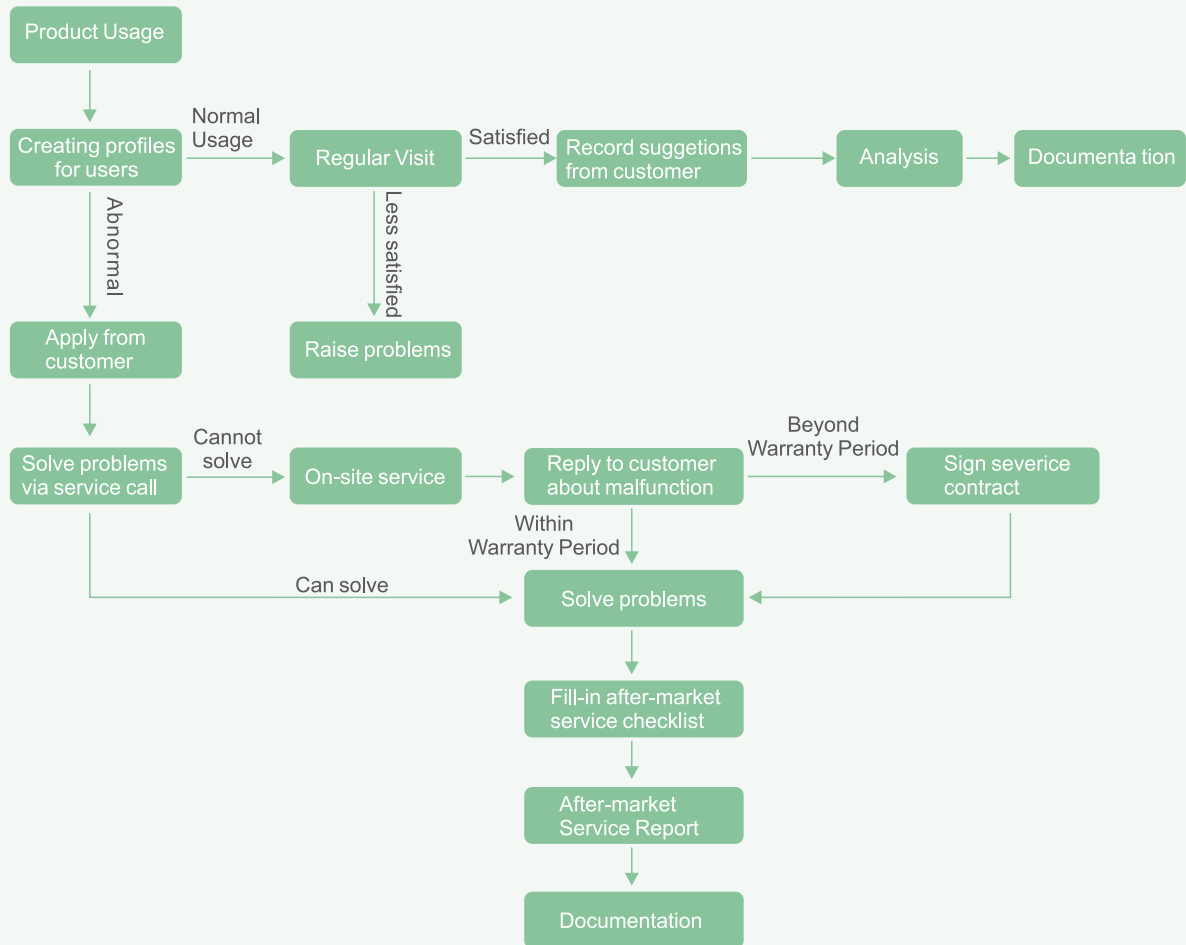
## ■ Establishment and implementation of after-sales service system

● The company establishes good cooperation and service relationship with customers through portal website, official account, customer service hotline, questionnaire, regular visit and other methods. In 2022, we conducted a satisfaction survey and used the analysis results as input for the annual management assessment. The company also arranged dedicated personnel to log in to customer related websites and platforms in a timely manner to understand the information posted by customers and transmitted it within the company.

● The company has established a comprehensive after-sales service system, established a specialized customer service department, and standardized and institutionalized service processes to ensure timely and effective resolution of customer problems. The company continuously optimizes the product traceability system, organizes recall rehearsals and audits of key suppliers, and improves traceability management capabilities in accordance with relevant national requirements such as "three guarantees" and "recalls" for automobiles. As of December 31, 2022, the company has not experienced any market recall incidents, and all customer feedback has been resolved through consultation with customers. The overall operation of the company's recall and "three guarantees" management is stable.



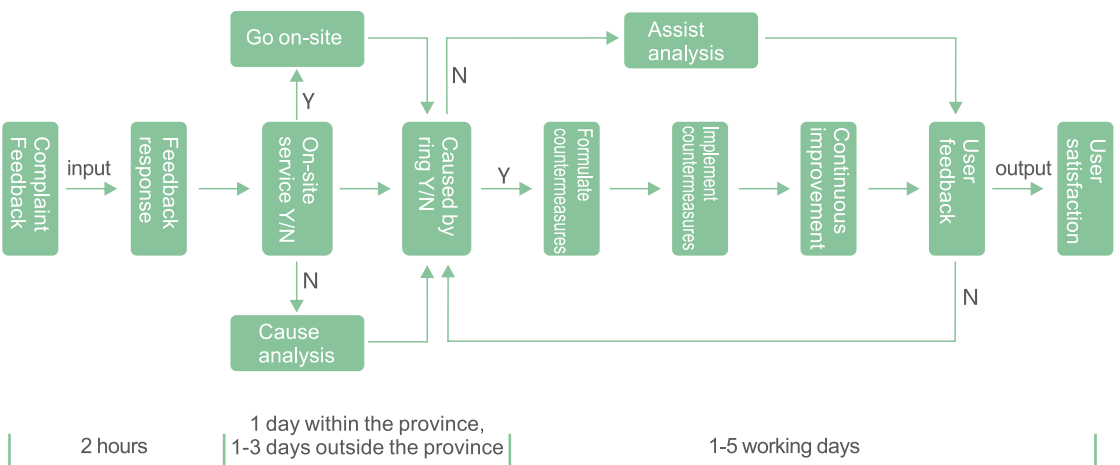
### Service Process



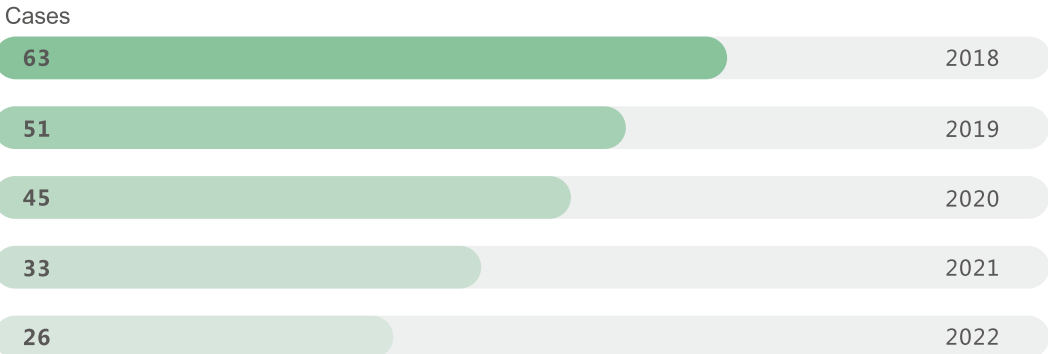
## ■ Number of handling complaint cases and improvement situation

The company has established a comprehensive customer complaint handling system and established specialized departments to handle customer complaints and suggestions in accordance with the "Customer Complaint Handling Measures", standardizing and institutionalizing the acceptance process to ensure timely and effective resolution of customer difficulties. We have established a customer complaint and information ledger for quality issues reported by customers, including records of handling customer complaints and in-transit products. We have used methods such as 8D and "Five Principles" to analyze and solve these issues, ensuring timely and accurate understanding of information by customers, scientifically and fairly compensating and handling them, and actively and steadily ensuring the rights and interests of customers and consumers.

### Timeliness of Complaint Handling



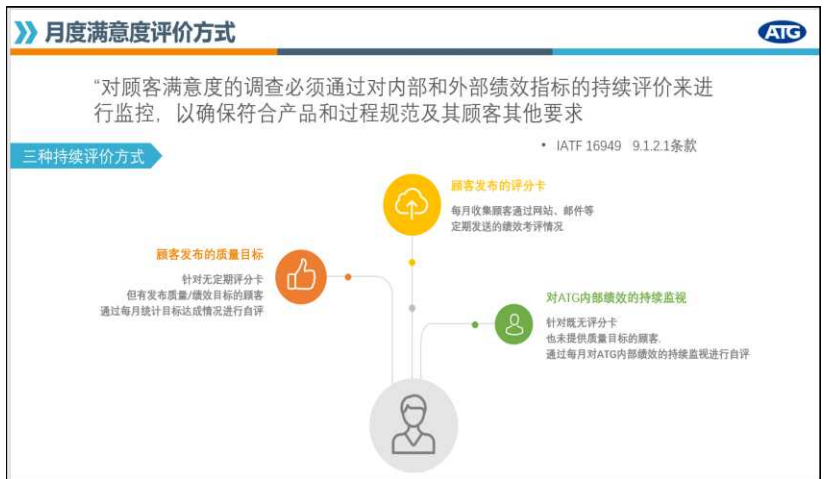
### Transition Chart of Complaint Cases in Latest 5 Years



## Product satisfaction survey: product, service, delivery time

- The company provides high-quality after-sales service to customers, adheres to the service tenet of "customer first", and pursues to meet their all-round needs. It has established an effective communication mechanism with customers through multiple channels, established customer management files, and formed good interaction with customers through multiple channels such as telephone, internet, email, and on-site follow-up.
- The company has established a complaint reporting hotline to ensure that complaints can be resolved in a timely and effective manner. The company regularly conducts customer satisfaction surveys and analyzes customer satisfaction from four dimensions: quality, delivery time, service, and product cost-effectiveness. The company promptly identifies internal deficiencies in quality production and service, and aims to improve itself and better serve customers. Customer satisfaction reaches over 90%, Received the highest quality honor award multiple times.

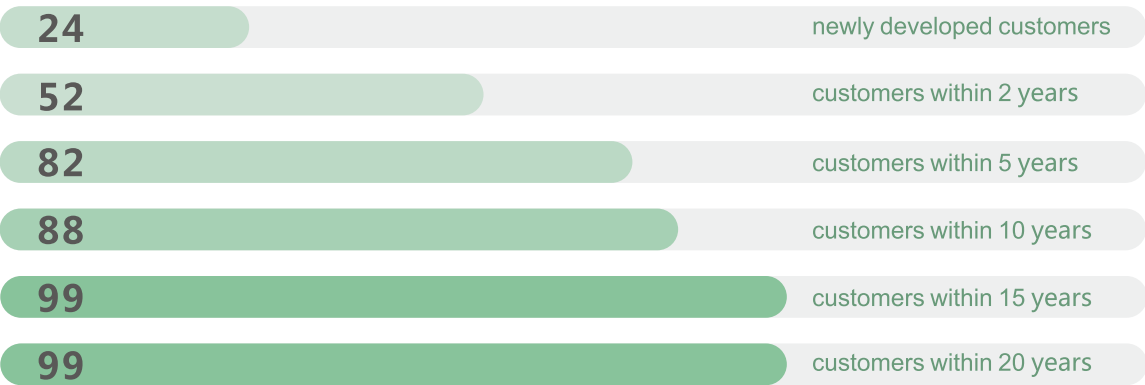
### Customer satisfaction



## Guide customers and consumers to purchase and consume sustainable products and services

### Transition Chart of Customer Loyalty

Conclusion of Customer Cooperation Years(As of 2022)



- The company has established a service philosophy of serving the interests of society and consumers, advocating for green environmental protection and eliminating resource waste. It actively explains to customers and consumers the excessive promotion and risks of some products in the market, and provides evidence to explain the resource waste and environmental damage of some products in the manufacturing process. It recommends green products with new designs and processes.
- In addition, we utilize opportunities of customer communication and national and regional exhibitions, explain the future development trends and directions of the product from a technical and economic perspective, fully explain the new materials, processes, and designs of the product, and inform customers and consumers to purchase valuable and correct products.
- By meeting the potential needs of customers and achieving unexpected new quality of products or services, the company focuses on exploring customer needs, creating new products, and increasing unexpected new quality, continuously improving customer service systems. Reasonably measure the service level of the company, actively correct deficiencies, improve the service process of the enterprise, and ultimately achieve a service level of "value for money" charm quality for customers, thereby guiding customers to make sustainable purchases and achieving sustainable development.

## Do not disclose, provide, or abuse customer and consumer information:

In order to ensure the legitimate interests of customers, ARN Group adopts a series of confidentiality measures to strictly protect customer information and prevent unnecessary economic losses caused by outsourcing to customers. For example, all company computers and printing systems are equipped with customized encryption software, and all technical core departments have adopted access control measures. Customer information is managed by dedicated personnel, reading permissions for confidential information are established, and confidentiality agreements are signed with employees. Effectively carry out customer information confidentiality work.

The company adheres to the concept of mutual learning and has conducted close communication with customers to achieve mutual benefit and win-win situation.



## Energize Intelligent Manufacturing

### Overview of digitization and intelligence



With the vigorous development of new generation information technologies such as 5G, big data, and artificial intelligence, new technologies, new thinking, and new methods are leading the transformation of business operation models, management methods, and decision-making ideas.



ARN Group, in line with the development trend of automotive component manufacturing and new generation information technology, has proposed a digital transformation strategic goal: to invest one billion yuan in intelligent manufacturing and industrial internet construction within five years, and accelerate the transformation and upgrading to digitization and intelligence.

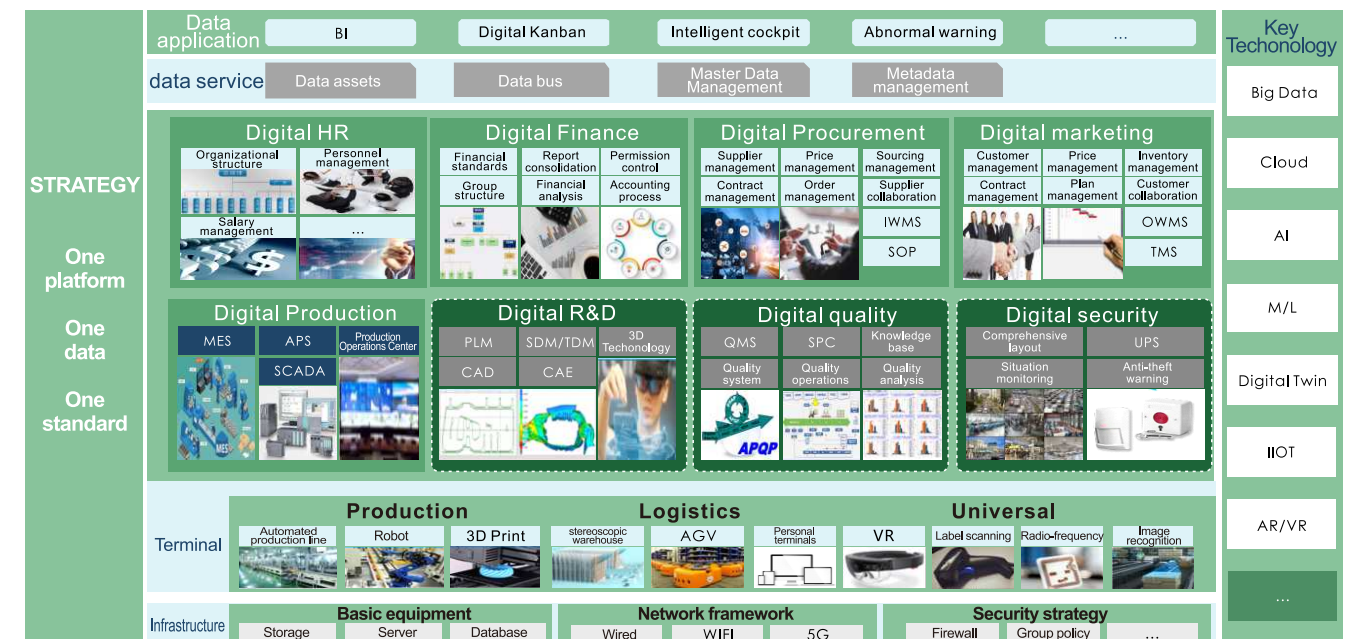


Focusing on this goal, ARN Group has formulated the "1234" action plan. In 2022, the company promoted the bi-directional integration of business and systems, with digitalization as the core and the use of networked means to achieve intelligent empowerment, ensured efficient and high-quality delivery of products and services, continuously improved the core competitiveness of the enterprise, and moved towards high-quality development.

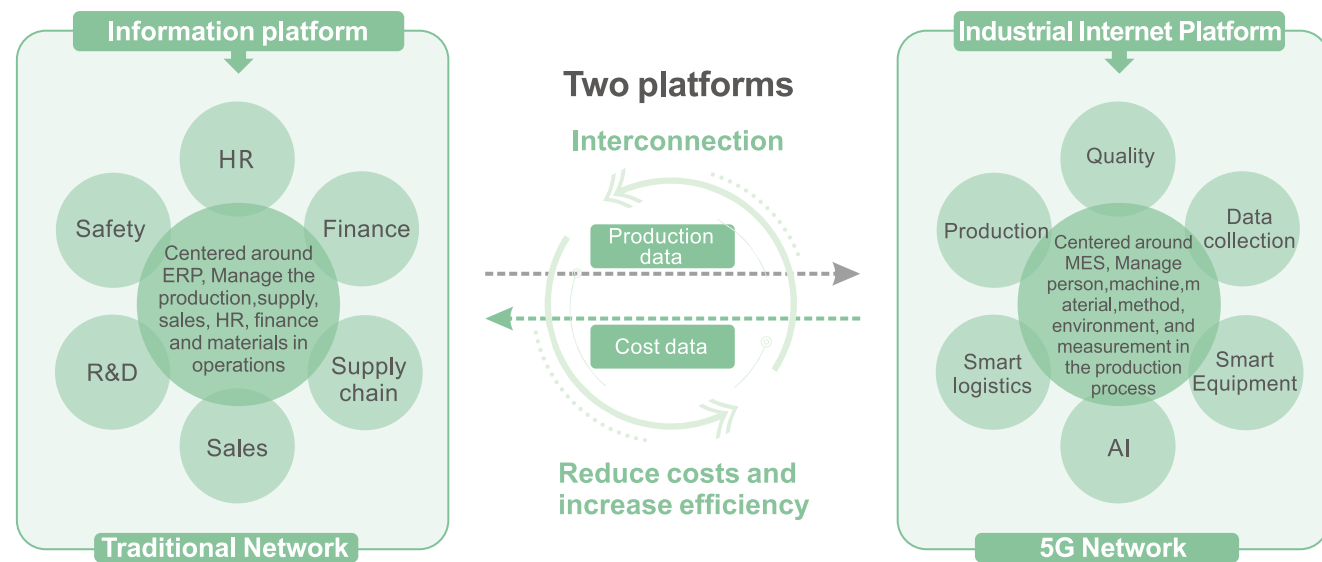


- 1 » A Blueprint
- 2 » Two Platforms
- 3 » Three modes
- 4 » Four types of scenarios

### "1234"—A Blueprint Clarify the digital planning of the group

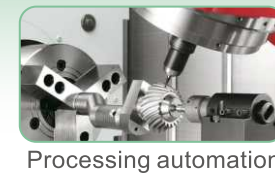


## “1234” ——Two Platforms Utilizing Two Platforms to Realize Interconnection and Interoperability



## “1234” ——Four types of scenarios Building an intelligent factory

2021



Processing automation



Handling automation



(Un)loading automation



Inspection automation

2022



Manufacturing automation



Intelligent detection



Technological innovation and improvement

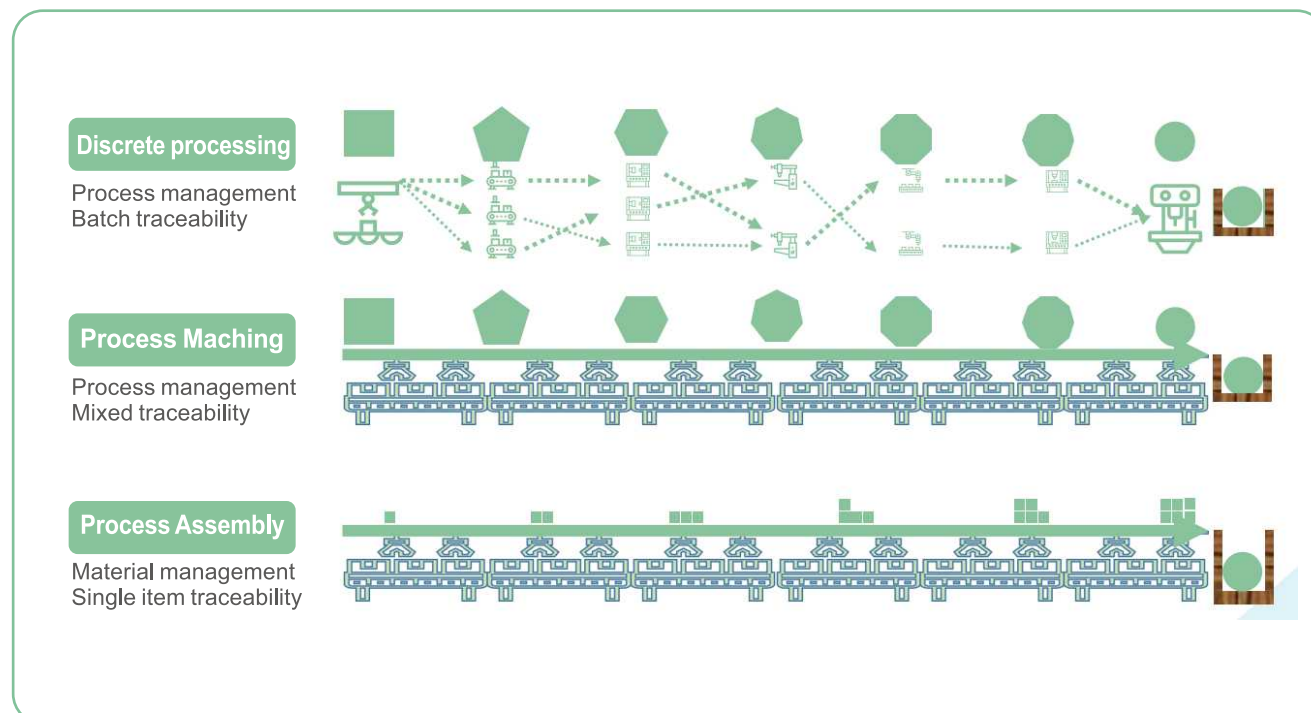


Energy improvement

Improvement principle

1.0 Control return on investment 2.0 Enhancing product competitiveness

## “1234” ——Three modes Establish digital production line standards



## Industrial Internet Platform

ARN Group builds an industrial internet platform that covers the group, service industry bases, and upstream and downstream enterprises in the supply chain.

- Realize data integration management through data collection, storage, and processing;
- Building a multi-level cockpit, visualizing data management can improve management decision-making;
- Build 5G+digital solutions to assist enterprises in digital transformation.

2022:

- Realize digitalization of finance and marketing;
- Completed the digitization of **894** devices and the construction of **3** digital platforms;
- A total of **32** digital Kanban have been preliminarily formed at multiple levels of processes, workshops, and factories;
- More than **200** enterprises and **1500** industrial equipment have been connected.





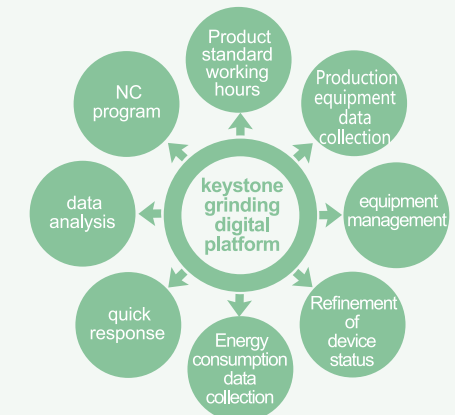
## Information technology construction in production for enterprises

### Equipment digitization construction

1. Complete the construction of 3 digital platforms in 2022;
2. Digital platform construction, with an increase of 3.9% in OEE that has been launched, an increase of 5.1% in OEE that has been newly launched.



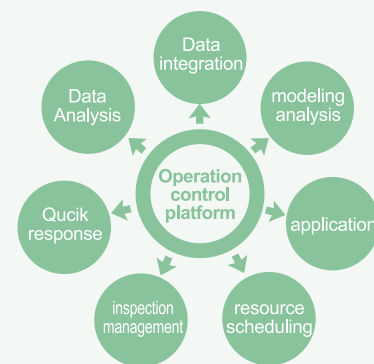
### Group subsidiary (ATG): 5G+ keystone grinding digital platform



#### 2022

- Increase production efficiency by 5%;
- 3 persons saved;
- The "5G+Keystone Grinding Data Collection" project has won the first prize in the 5th National "Blooming Cup" 5G Application Special Competition and the third prize in the Science and Technology Innovation of ARN Group;
- The ATG keystone grinding process has been rated as the "benchmark process of ARN Group".

### Group Subsidiary (AAT): Digital Phase II Construction



#### 2022:

- More than 700 new linked devices added
- running rate improved by 3%
- 6 persons saved
- AAT Foundry Section has been awarded the title of "Benchmark Workshop of ARN Group"
- The project has been awarded the "Second Prize in Science and Technology Innovation of ARN Group"

### Group subsidiary (ATGL): gasoline size inspection line



- The gasoline engine size inspection machine adopts machine vision technology and artificial intelligence deep learning to achieve qualified product screening.
- By integrating with data collection systems and MES systems, real-time collection of product information, automatic feedback of work orders, and traceability of product quality can be achieved through 5G+industrial internet technology.

#### 2022

- Increase production efficiency by 5%;
- 25% increase in tool life;
- 3 persons saved;
- The project has been awarded the "Third Prize in Science and Technology Innovation of ARN Group".



### Group subsidiary (ATG): Automatic production line for molding shakeout



In order to solve the problems of high manual operation intensity, poor working environment, and high personnel turnover rate in the casting molding process, the first domestic automatic equipment for molding shakeout has been developed, which adopts a robotic arm, AGV, and truss mechanism to achieve automated production of the casting molding shakeout.

#### 2022

- Increase production efficiency by 15%;
- Increase production capacity by 15%;
- 16 persons saved;
- The project has been awarded the "Third Prize in Science and Technology Innovation of ARN Group".

### Group subsidiary (AAT): Fully automated production line for resin printing



automatic cleaning



automatic encasing



automatic printing

The fully automatic production line for resin printing uses robots, module mechanisms, and conveyor belts to replace manual loading and unloading, and an eight-station cleaning machine to clean the product; Accurate position of translation module; Visual camera takes photos and positions, thereby achieving automation of cleaning, printing, and packaging processes.

#### 2022:

- 12 persons saved
- The project has been awarded the "Third Prize in Science and Technology Innovation of ARN Group".

### Group subsidiary (ATG): Automatic keystone grinding of face seal



To solve the problems of long lead time, high price, and high consumables cost of imported keystone grinding equipment, domestic equipment has been developed. It adopts a robotic arm truss automatic loading and unloading system+CBN grinding wheel, which improves personnel efficiency and saves investment costs.

#### 2022

- Increase production efficiency by 180% ;
- 11 persons saved;
- The project has been awarded the "Third Prize in Science and Technology Innovation of ARN Group".

### Group subsidiary (ASP): Compression spring automatic feeding production line



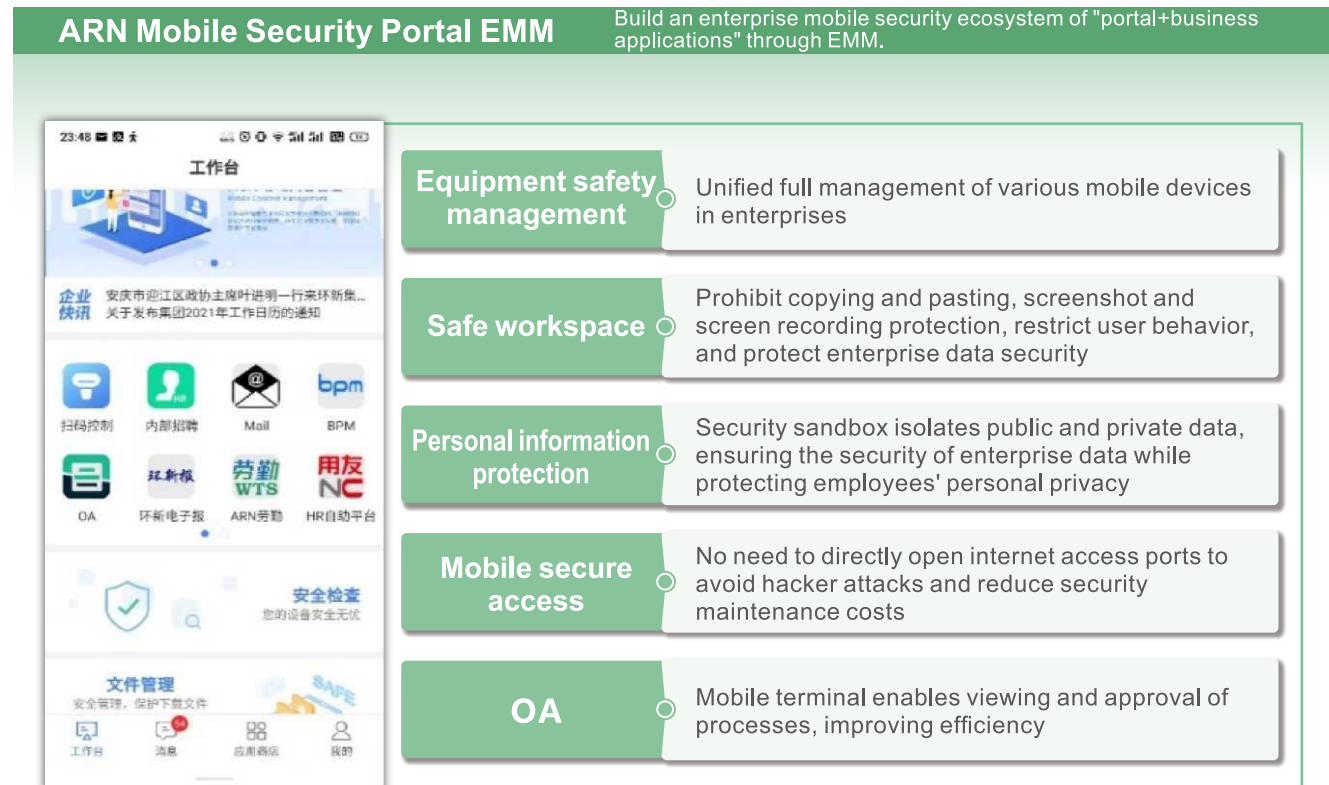
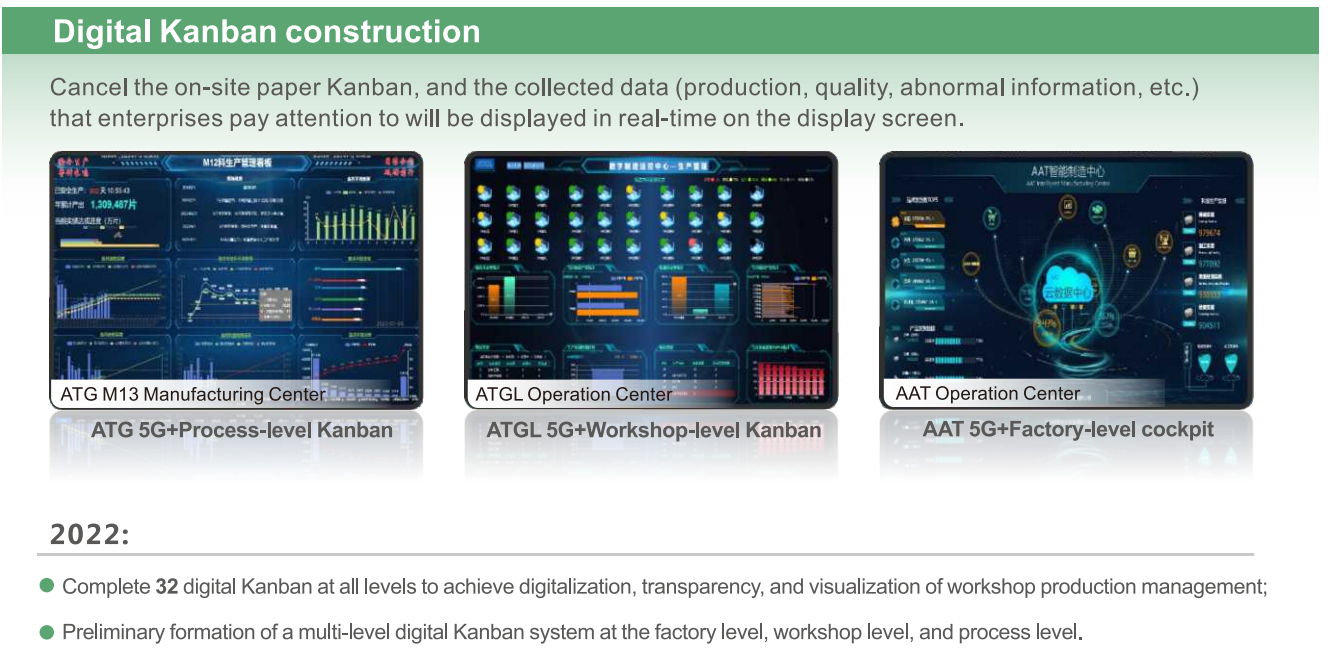
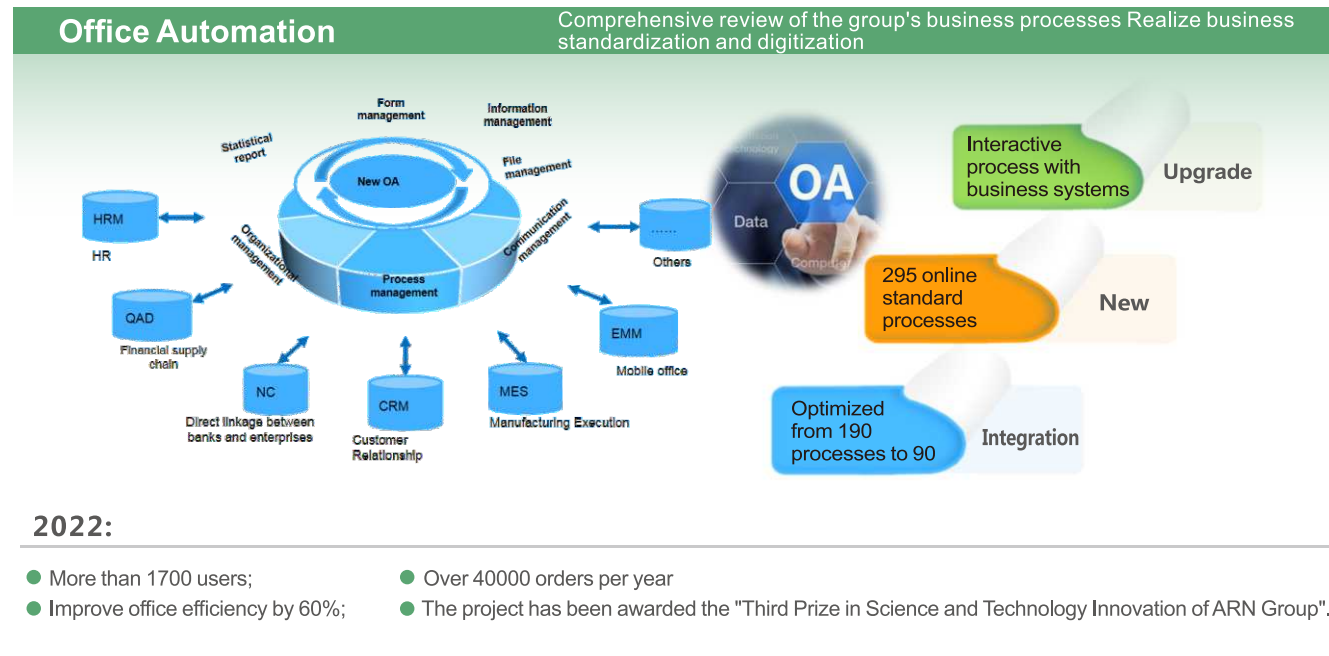
The automatic feeding production line for compression springs adopts a motor servo positioning/mechanical meshing method to solve problems such as spring separation and sorting, and achieve precise positioning and feeding of multiple types of springs.

#### 2022:

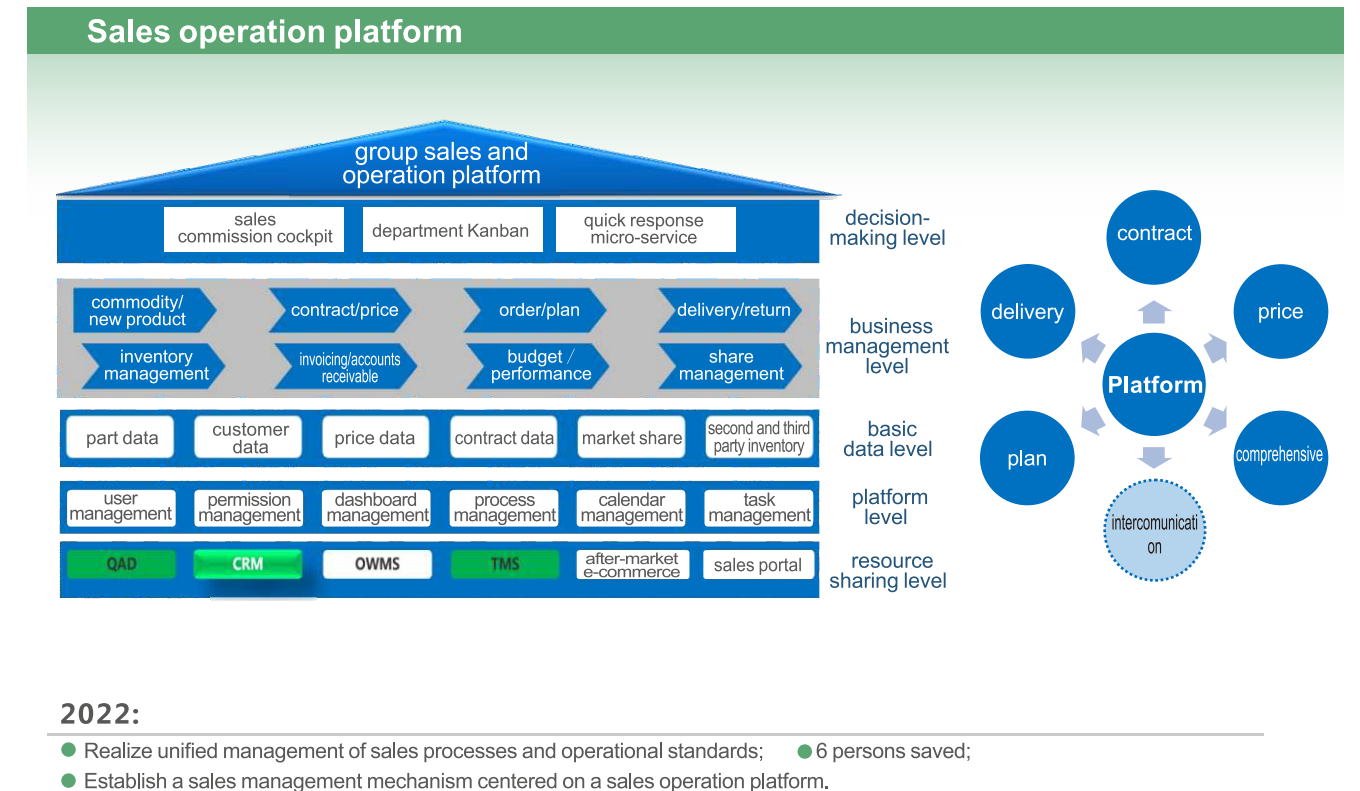
- The efficiency of the HTC grinding machine loading process has been improved by 220%;
- Improve the efficiency of the feeding process of DORN grinding machine by 100%;
- The efficiency of the hot pressing swing plate process has been increased by 66%;
- 17 persons saved;
- The project has been awarded the "Third Prize in Science and Technology Innovation of ARN Group".



## Information technology construction in management for enterprises



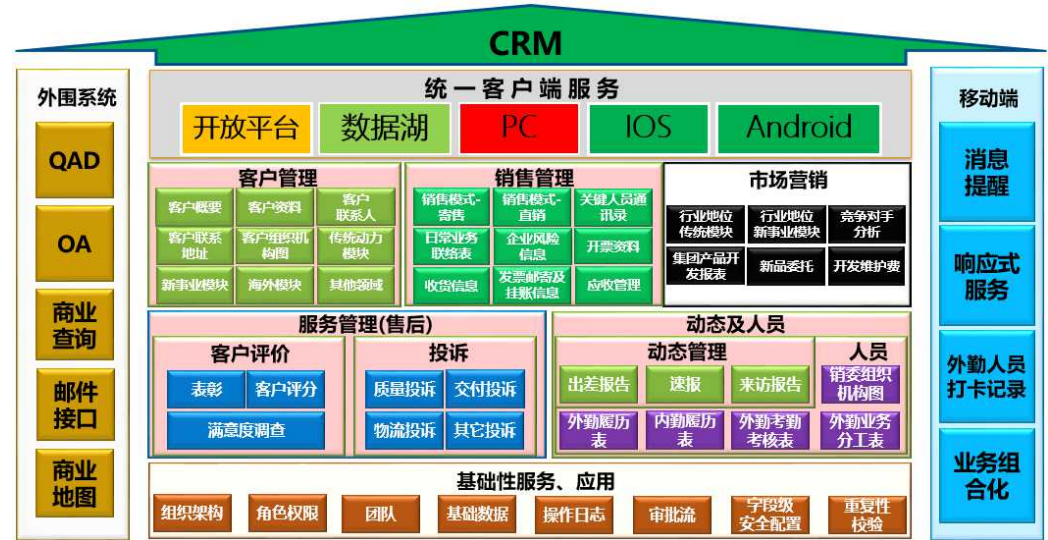
## Information technology construction in marketing for enterprises



## Information technology construction in after-market service for enterprises

In order to optimize customer resources, integrate customer information, and improve comprehensive service levels, ARN Group has established a customer relationship management system CRM, which has the following functions and roles in after-market service:

- Digital after-market service process, full service process management;
- Customer information management, providing personalized customer service;
- Intelligent allocation of after-market work orders to improve after-market service efficiency;
- Statistical analysis of after-market data to improve after-market management level;
- Quick response to complaint and satisfaction interaction, achieving win-win situation.



## Innovation Honors in 2022



National Technological  
Innovation Demonstration  
Enterprise

National High-tech Enterprise

Top 30 Enterprises in China's  
Automotive Parts Industry

2022 Top 100 Enterprises with  
Brand Influence in the Yangtze  
River Delta

Provincial High-tech  
Enterprise

Top 20 Municipal High-tech  
Enterprises



Strategic Supplier  
Excellent Supplier

Excellent Service Award

Quality Excellence Award

Gold Supplier

Best Partner

Best Quality Award

Supply Guarantee Award

Cooperation Win-Win Award

Outstanding Development and  
Innovation Award

The Most Influential Brand



China Industrial Internet  
Outstanding Application  
Award

China Intelligent Marketing  
Outstanding Application  
Award

National 'Green Factory'

First Prize in the Blooming Cup  
5G Application Industry  
Special Competition

Excellent Cases of Provincial  
Industrial Internet Platform

Provincial Intelligent Factory

Provincial "Specialized,  
Refined, and Innovative" Small  
and Medium-sized Enterprises

First Major Technical  
Equipment Award

Municipal Intelligent Factory

Municipal Digital Workshop








» Responsibility Performance  **Coordinated Development**  
Broaden employees career and gather ARN new forces

Labor contract employees	Minority employees	Female employees	Recruiting employees in 2022
7151 people	256 people	1734 people	846 people
Number of people whose labor contracts expire in 2022	Number of people renewing labor contracts in 2022	Number of new labor contracts signed in 2022	Sign an open-ended contract in 2022
260 people	260 people	846 people	150 people

## Welfare Guarantee , Sound Salary Management System

### ■ Salary Level

- 
- Continuously improving the existing salary system to ensure a reasonable salary structure and competitive salary levels;
  - Hold annual collective wage negotiation meeting to discuss annual salary increase plans with representatives from trade union and enterprises;
  - During the COVID-19 in 2022, when the company's operation was under great pressure, the total salary increase was still about 5%;
  - The average monthly salary level of supervisors and workshop workers is about 68% higher than that of local urban employees from private enterprises (2022 data).



## Welfare Treatment

### Employee welfare system

Caring for employees and emphasizing their development is one of the important corporate culture. The happiness of employees is the foundation of the company's technological progress, excellent products, and first-class services. Therefore, we are committed to continuously improving the employee welfare system and enhancing employee happiness.



- According to relevant national, provincial, and municipal requirements, employees are guaranteed the right to enjoy annual leave, marriage leave, maternity leave, nursing leave, and parental leave.
- Pay overtime work in full and strictly control overtime hours according to the following requirements, ensuring employees' right to rest and vacation:

Monthly overtime  
not exceeding 36h

Daily working hours shall  
not exceed 11 hours

Take at least one  
day off per week

Night shift switching  
ensures two days off

After the full liberalization of the prevention and control of COVID-19 in December 2022, the number of symptomatic positive infections in the company reached more than 70%.

In order to ensure that employees can rest at home with peace of mind, the company, in accordance with relevant national, provincial, and municipal regulations, had issued a notice on the salary and benefits of employees during the epidemic prevention and control period. The notice specified that the salary and benefits of positive infected individuals would not be affected during the vacation period.



## Provide social insurance for employee and coverage

### Five insurances and one fund

- 100% coverage for employees establishing labor relations;
- The proportion of provident fund contributions is 12% (the highest proportion).

### Supplementary medical insurance

For medical expenses within the scope of medical insurance for employees (including retired employees), after being reimbursed by the medical insurance, the company will reimburse them again at a ratio of 50% to 90%; In the past three years, employees have reimbursed medical expenses exceeding 2 million yuan.

### Personal Accident Insurance

To buy personal accident insurance for all employees as an auxiliary and support to social insurance, and to build a second protective barrier to protect the rights and interests of employees.



## Caring for Employee, Health and Safety Come Firstly

### Health management

The company hires health consultants, allocates full-time factory doctors, and tracks and manages the health status of employees.

100%

physical examination rate for in-service employees

Arrange for all employees to participate in health examinations every year, and the health consultant will analyze the examination results and apply them to personnel allocation, dining, and work environment improvement; Employees with abnormal physical examination indicators will be arranged for re-examination and admitted for treatment.

Conduct a detailed analysis of the results of the company's physical examination in 2021, and propose active intervention, early diagnosis, and early treatment for metabolic diseases and overweight male employees in the middle and elderly age groups of the company.

男	血糖	血脂	尿酸	脂肪	血压	幽门 杆菌	超重	心率	谷丙
2021	7.9	24.0	21.8	37.7	22.4	37.4	46.3	15.5	20.7
2020	4.6	29.5	23	33.8	21.8	35.4	41.8	20.3	19.5
2019	4.4	23.8	18.5	28.8	15.6	40.2	31.7	10	13.9
2018	3.5	21.5	6.8	19.8	11.6	25	22.7	16.8	5
2017	4.1	21.7	14.4	20.8	15.7	37.4			
女	血糖	血脂	尿酸	脂肪	血压	幽门 杆菌	超重	心率	谷丙
2021	4.7	13.1	7.7	12.4	8.6	34.8	24.7	15.9	7.4
2020	1.7	12.8	6	9.5	6.7	31	20.9	17.3	6.8
2019	1.4	7.7	4.6	8.7	6.4	38.8	16.9	10.4	3.6
2018	0.3	3.5	0.8	2.1	1.6	8.4	12.8	3.3	2.7
2017	1.8	12.1	6	7.5	3.2	39.4			

Note: The health examination for all employees in 2022 has been postponed to the first quarter of 2023 due to the epidemic.



Health consultants give special lectures on health knowledge

100%

Retired employees' physical examination rate

In order to ensure the physical health of retired employees and improve their quality of life in their later years, the company arranges for all retired employees to participate in health examinations every year, and a health consultant specifically develops a personalized physical examination plan for retired employees.



0%

Occupational disease incidence rate

On one hand, the company should do a good job in occupational disease prevention, equip sufficient protective equipment, and regularly carry out occupational health and safety training; On the other hand, arrange two occupational health examinations for all employees of special types of work positions and for those who have left their posts every year.

Establish occupational health examination records, identify taboo positions based on employees' physical condition, and promptly arrange job transfers.



### Security Operations Management

#### Investment in safety production funds

2022 3126 10K Yuan 2021 2689 10K Yuan 2020 2270 10K Yuan

For many years, ARN Group has continuously increased investment in safety production funds, allocated and distributed labor protection equipment to employees according to quality and quantity, and strongly supported continuous improvement of safety. It tends to invest in new equipment with high safety performance. In 2022, 31.26 million yuan was invested in safety production funds.

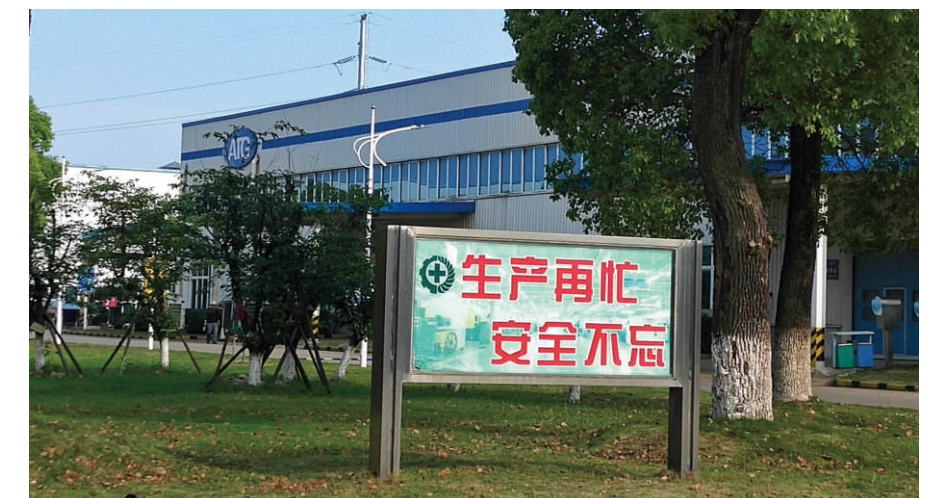


ARN Group always adheres to the safety work policy of "working together with employees to create a safe and healthy work environment, continuously promoting zero safety accidents, and steadily improving disaster prevention, reduction, and relief capabilities", always putting safety first, firmly implementing the safety production responsibility system, and continuously strengthening the construction of a dual prevention mechanism system for safety production. By increasing investment in safety production funds as a guarantee and improving the quality of safety training and education as a starting point, we comprehensively enhance the safety production awareness and ability of each employee.

The focus of carrying out safety production is on the construction of safety production system and standardization. Among the 18 subsidiaries of the company, 11 have passed ISO45001 system certification, and 3 are Level-II enterprises in safety production standardization.

In 2022, the company's Safety and Environment Committee held regular safety meetings every month. While arranging and deploying specific safety production related work, it actively discussed and improved safety management systems such as meetings, inspections, education and training, safety operations, equipment safety management, accident hazards and hazards management, accident management, and rewards and punishments.

In 2022, based on the actual work situation, 87 regulations were revised and improved on the basis of the existing 534 regulations. At the same time, various management systems have also been integrated, and a groundbreaking safety bonus point system has been established, greatly enhancing the enthusiasm of all employees to participate in safety.





## ● Emergency management

The company leaders attach great importance to the improvement of emergency response capabilities and have repeatedly emphasized the continuous improvement of emergency plans and the strengthening of emergency drills. In 2022, ARN and its subsidiaries revised and filed a total of 324 emergency plans, including 108 comprehensive emergency plans, 96 special emergency plans, and 120 on-site emergency response plans. A total of 396 emergency drills were completed as planned throughout the year.



## ● Risk grading control

In 2022, each subsidiary of ARN Group identified a total of 54 important hazard sources, formulated 482 corresponding control measures, and used the company's safety environment digital platform to establish an electronic account of important hazard sources, generate daily inspection tasks for each control measure, and upload and archive inspection records. This not only improved the efficiency of risk grading control, but also improved the effectiveness of control measure inspection. The normal operation rate of important hazard sources in all companies throughout the year is 100%.



## ● Hazard investigation and management

The company has always adhered to the principle of "multi form and high frequency" safety inspection activities, including mutual inspection, professional group inspection, inspection group inspection, TOP point inspection, special inspection, and holiday inspection among its subsidiaries. In 2022, the company conducted 245 safety inspections, identified 1456 general safety hazards, completed rectification of 1456 items, and achieved a 100% rectification rate.



## ● Safety education and training

The company adheres to the concept of "full coverage and high quality" as safety education and training, and continues to carry out various safety trainings such as three-level education and training for new employees, fire knowledge training, outsourced construction safety training, and safety red line training. In 2022, more than 450 safety training sessions were organized and conducted, with over 7000 participants. At the same time, in order to further improve the quality of safety training, a VR accident experience machine was introduced in 2022, allowing employees to experience various safety accidents firsthand, learn from experience and lessons, and improve safety awareness. The annual employee participation experience rate is 100%.



In 2022, there was no serious injury or above safety accidents in the company.





# Equal Employment, Build Harmonious Labor Relations

The company strictly complies with relevant laws and regulations such as the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, and the Labor Dispute Mediation and Arbitration Law of the People's Republic of China. Comply with relevant regulations on employee employment, dismissal, working hours and holidays, and equal pay for equal work, and provide equal employment opportunities for candidates.

Establish and continuously improve the "Recruitment Management Regulations", "Recruitment Management Regulations for Office Positions", "Medical Examination Standards for Hiring New Employees", and internal recruitment processes.

Provide employees with a comprehensive employment mechanism to build a harmonious and stable labor employment relationship.

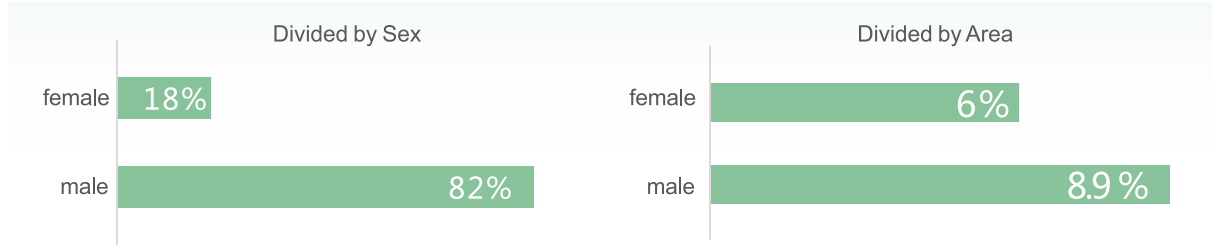


◆ At present, the company is in a period of transformation and development. We focus on the company's strategic requirements such as digital upgrading and 2.0 product research and development, and use recruitment systems as support to attract outstanding college graduates and social elites with relevant job experience; At the same time, establish an internal talent selection, training, and competitive employment system to ensure the company's talent reserve.

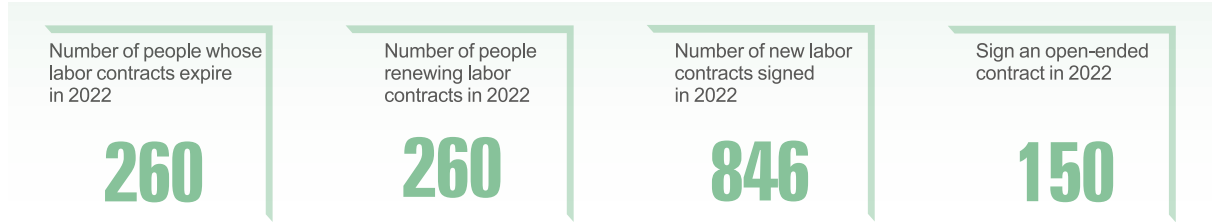
Highlights from recruitment activities	Descriptions
School-enterprise cooperation	<ul style="list-style-type: none"><li>● By collaborating with higher education institutions in industry, academia, and research, we aim to promote the transformation of achievements.</li><li>● Signed a school enterprise cooperation oriented training agreement with Anqing Vocational Education Group, adopting a "work learning integration" model and offering targeted training "ARN Class".</li></ul>
Internal recruitment	<ul style="list-style-type: none"><li>● In 2022, the company conducted a total of 48 batches of internal recruitment and selected 65 workers for management and technical positions.</li><li>● Establish a reserve talent training system for key positions such as the Yuxiu Plan, Navigation Plan, and Craftsman Plan. In 2022, a total of 209 candidates was selected to participate in the training, of which 56 was matched to key positions.</li></ul>
Flexible Talent Attraction	<ul style="list-style-type: none"><li>● Explore new personnel employment models and hire experts in the form of technical consultants to guide 2.0 product development and technical training.</li></ul>



◆ The total turnover rate of the company in 2022 was 6.3%



◆ Establishing long-term & stable labor relations :



◆ In recent years, the digital construction of human resources in the company has shown initial results:

- Standardized management of personnel information;
- Implement online signing and management of labor contracts and various agreements;
- Convenience for employees to have meals, attendance, and access through a one card system;
- Automatic collection, analysis and summary of attendance data;
- Employee self-service successfully launched.

◆ In 2022, the company launched an electronic signature system, which increased the efficiency of the circulation and signing of labor contracts and various agreements by 30%.





## Talent training, staff and enterprise co-development

At present, the company has established a comprehensive training management, learning and development, and training resource system, supported by comprehensive institutional documents. Through a four-level training framework, the company has achieved a full coverage process of employee training for various positions, from leaders to frontline employees:

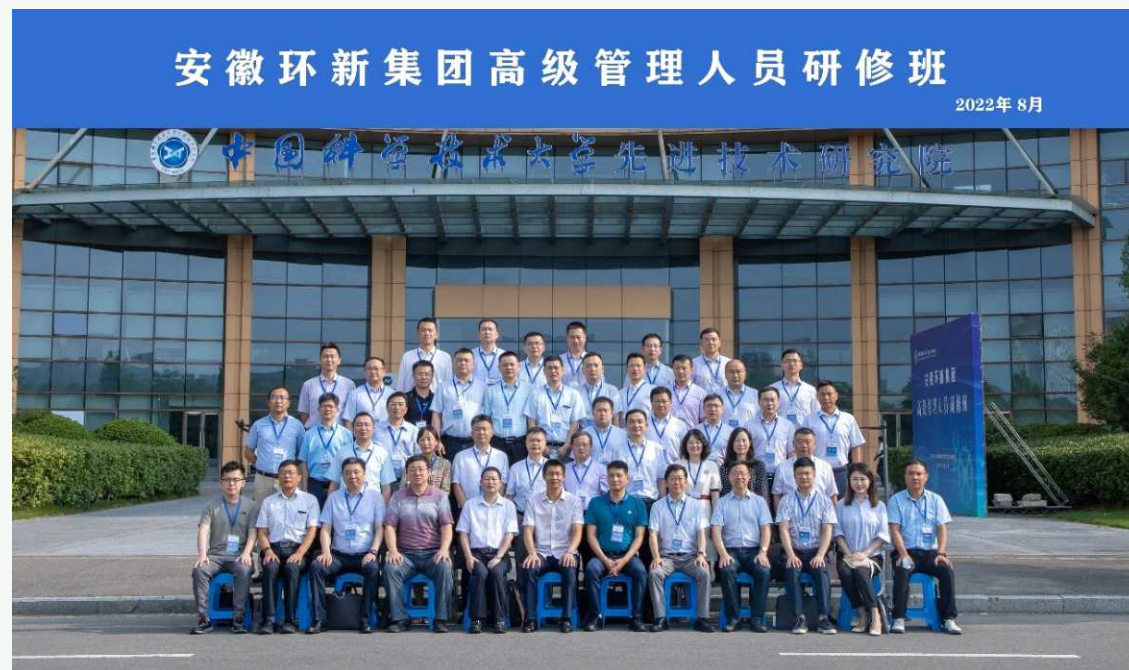
### Four-level Training Framework



### “Navigation Plan” (Senior Management Training)

Organize senior management personnel to exchange and learn industry development trends and advanced enterprise management concepts through various means such as classroom training, mobile classrooms centering around the company's development plan.

In August 2022, the company's senior management training course was successfully held at the Future Center of the Advanced Technology Research Institute of the University of Science and Technology of China. A total of 46 group executives, branch heads, department heads, and others attended the training.



### “Golden Eagle Plan” (Training for Grassroots Management Personnel)

Conduct management skill training for grassroots management personnel to improve their level.



### Skilled talent cultivation

The company has been approved to establish one "provincial-level skill master studio" and two "municipal-level skill master studios".

In 2022, the company relied on the skill master studio platform and took the master as the leader to strengthen the "teacher-guide-apprentice" activity for skill positions. Through the master's words and deeds, and on-site guidance, it cultivates a group of highly skilled talents.



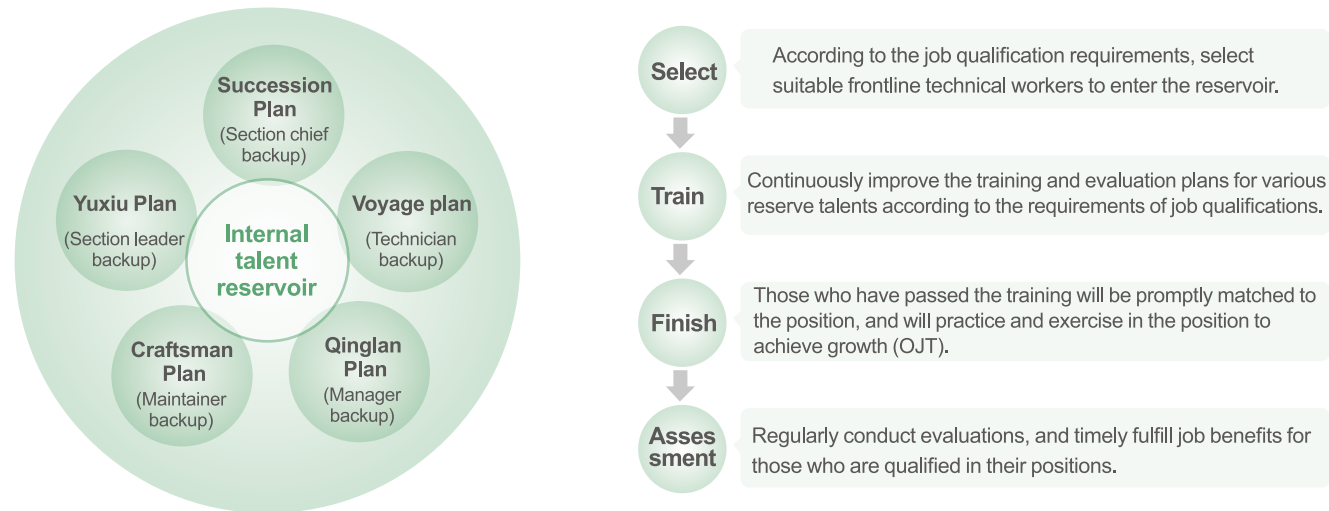
### Departure Plan (New College Student Training)

In order to help new employees adapt to the new environment and integrate into the new team, outdoor expansion training and other activities were carried out for new employees in 2022.





## ■ Training of reserve personnel



In March 2022, the company and the School of Electrical Intelligence of Anqing Normal University jointly held the "Voyage Phase I" training course (technician backup).



## ■ Talent Development and Promotion

The company is committed to developing a fair and equitable career development path for employees that covers various positions, combining vertical and horizontal promotions to quickly promote core positions and outstanding talents.



## ■ Comprehensive incentive system



## ■ Online learning platform

- In 2022, the company launched an online learning platform, empowering the development of enterprises and improving organizational performance by creating an "informative" and "interesting" online learning platform.
- The four major systems of courses, including general courses, departmental courses, functional courses, and external courses, gradually establish the enterprise's own knowledge base.
- There are four major categories of external courses, with 880 courses, covering a comprehensive range from enhancing professional literacy to implementing business skills.





## Enhancing Care, Create a Harmonious Cultural Atmosphere

### Construction of communication platform

The company has always been committed to establishing diverse, open, and transparent communication channels, encouraging employees to come up with ideas, and promoting various management improvements.



#### Main communication and feedback channels:

- Employee feedback box;
- The system of employee congress;
- Regularly hold employee seminars;
- Publish personal KPI complaint channels;
- Conduct an annual employee satisfaction survey from five dimensions: leadership effectiveness, training and development, job return, engagement, and cultural vision.

### Caring for female employees



Every year, 1.5% of female employees are selected as the "March 8th Red Flag Pioneer" to encourage female employees with excellent work performance in their positions.



Establish "mother and baby rooms" in each factory



March 8, 2022 Women's Day Activities

### Recreational and sports activities

- The proportion of employees joining the union is 100%;
- The company has fully provisioned union funds to carry out employee cultural and sports activities, care activities, and assistance for employees in need.



November 2022 Golden Autumn Lake Race Activity



Working Couples Memorial Day Activity on February 22, 2022



The 16th Group Table Tennis Team Tournament in July 2022



In October 2022, AAT company launched the "Three Mutual" outdoor expansion activity

### Child assistance

If an employee's child is admitted to university, the group labor union will distribute a scholarship of 2000 Yuan per person to the employee, and 180 employees have enjoyed the scholarship in the past five years.



The 'Golden Autumn Student Assistance' activity for employees' children admitted to universities in August 2022





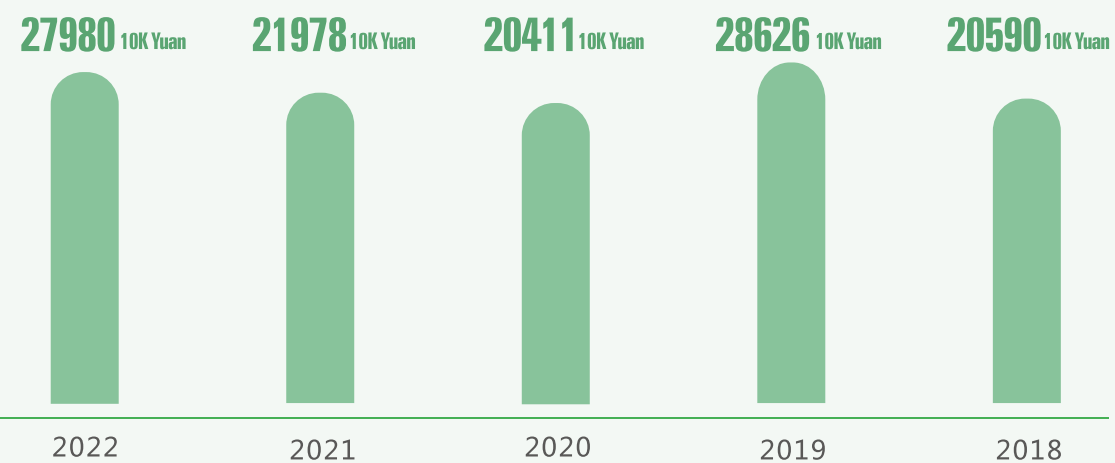
## » Responsibility Performance Green Revolution

Implementing low-carbon strategies and safeguarding natural ecology

Investment in green product research and development in 2022	Number of new technologies, processes, and products developed	Green environmental protection investment funds
27980 <sub>10K Yuan</sub>	189	1768.6 <sub>10K Yuan</sub>

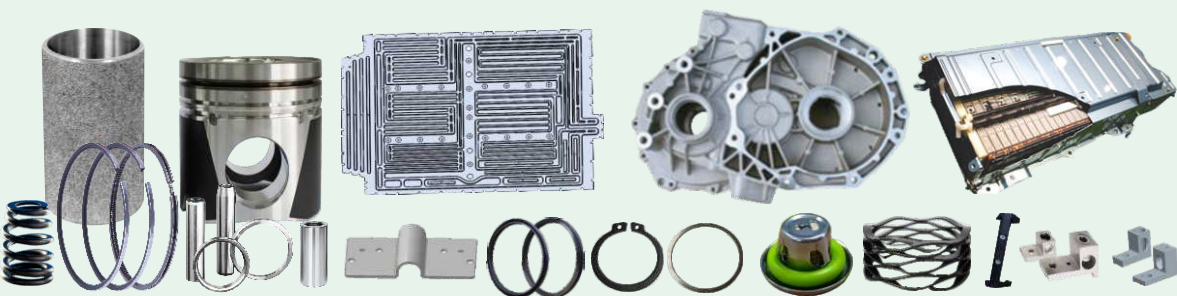
## Creating Green Products

### Product R&D investment



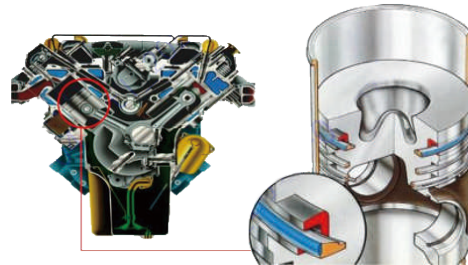
In the past five years, ARN Group has invested a total of 1.196 billion yuan in green product research and development.

In response to national policy planning, ARN Group actively implements the "dual carbon" strategy to meet the needs of global customers. ARN Group is driven by technological innovation, continuously improving processes and technologies in the field of traditional fuel vehicles. At the same time, it actively develops new energy products to accelerate the company's transformation and development into the new energy field. ARN Group is committed to providing customers with more environmentally friendly and efficient solutions, and contributing to the development of the automotive industry.

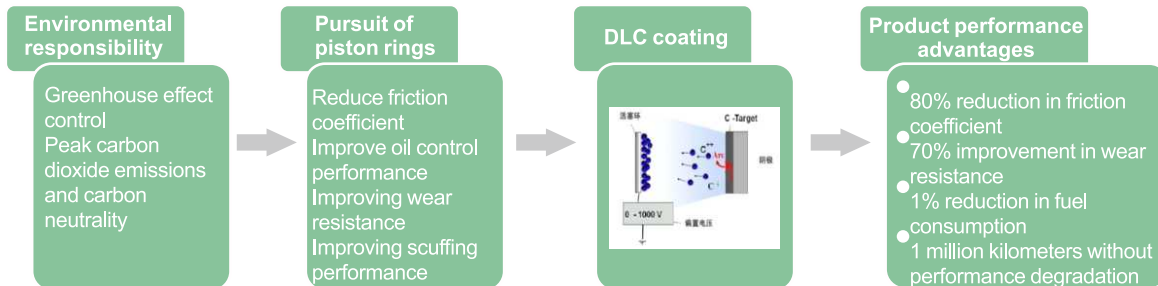


## DLC coating piston ring

The diamond-like carbon coating (DLC) technology of the company's piston ring products has been mature in the use of pulse laser deposition (PLD), cathode vacuum arc deposition (CVAD), and filtered cathode vacuum arc deposition (FCVAD), achieving ultra-thick and ultra-dense DLC coatings of various types, greatly improving the wear resistance and scuffing of piston rings, which improves fuel efficiency and meet increasingly strict exhaust emission regulations.



coating structure	Hardness	Thickness	SP3 Proportion
TA-C	1500 ~ 3700 Hv0.02	Over 25μm	≥70%

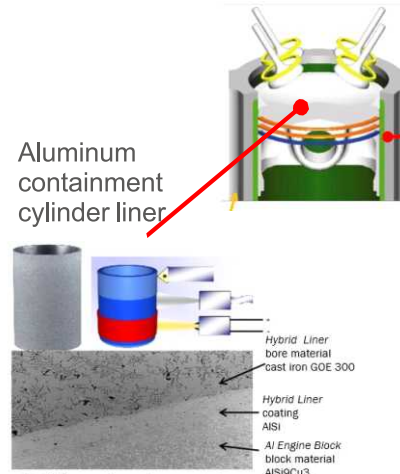


## Aluminum containment cylinder liner

The company's aluminum containment cylinder liner production line is the world's first fully automatic centrifugal casting production line for aluminum containment cylinder liners. It adopts the most advanced Megabond aluminum spraying technology, including good surface purification and roughening pre-treatment processes. The high-speed arc spraying gun has a unique design, high airflow acceleration, and stable arc combustion. Real time monitoring of current, voltage, and air pressure ensures uniform and dense coating structure, with a porosity of less than 1%. The bonding strength of the coating is high, reaching over 55Mpa. The use of aluminum cylinder liners in engines can reduce energy consumption, save oil resources, and reduce carbon emissions, achieving green environmental requirements.

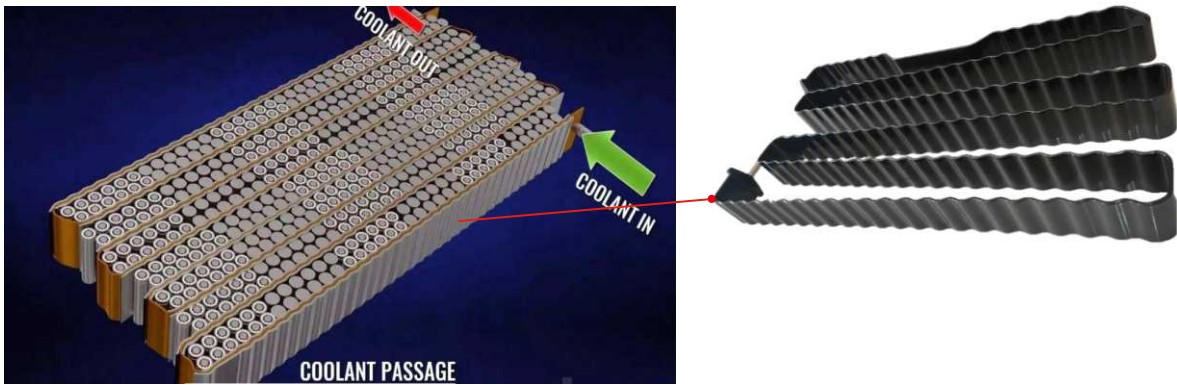
### Advantages:

- **Lightweight:** The density of aluminum is one-third of that of iron, which can directly reduce the engine's weight by 66%
- **Low fuel consumption:** The deformation of the cylinder liner is small, and the clearance between liner and the piston ring as well as piston is small, which can reduce engine fuel consumption by more than 1% while reducing exhaust emissions
- **High performance:** Modern fully automatic cast aluminum containment process production line, without the need for OD processing, shortens the process flow, reduces production energy consumption while still ensuring high product quality
- **Greenization:** The reduction of weight and improvement of fuel efficiency directly lead to a reduction in exhaust emissions, actively responding to the national carbon peak requirements



## Coolant passage

The company conducts research in the field of thermal management of new energy vehicle batteries and has developed the key component of the battery cooling system, the coolant passage. Starting from the source design, through thermal simulation, thermal shock, vibration, corrosion resistance and other tests, the safety of the coolant passage in the battery pack could be ensured. And we actively promote lightweight and green environmental protection processes, so that the battery pack has good safety, long service life, and environmental and green characteristics.



### Product advantages:

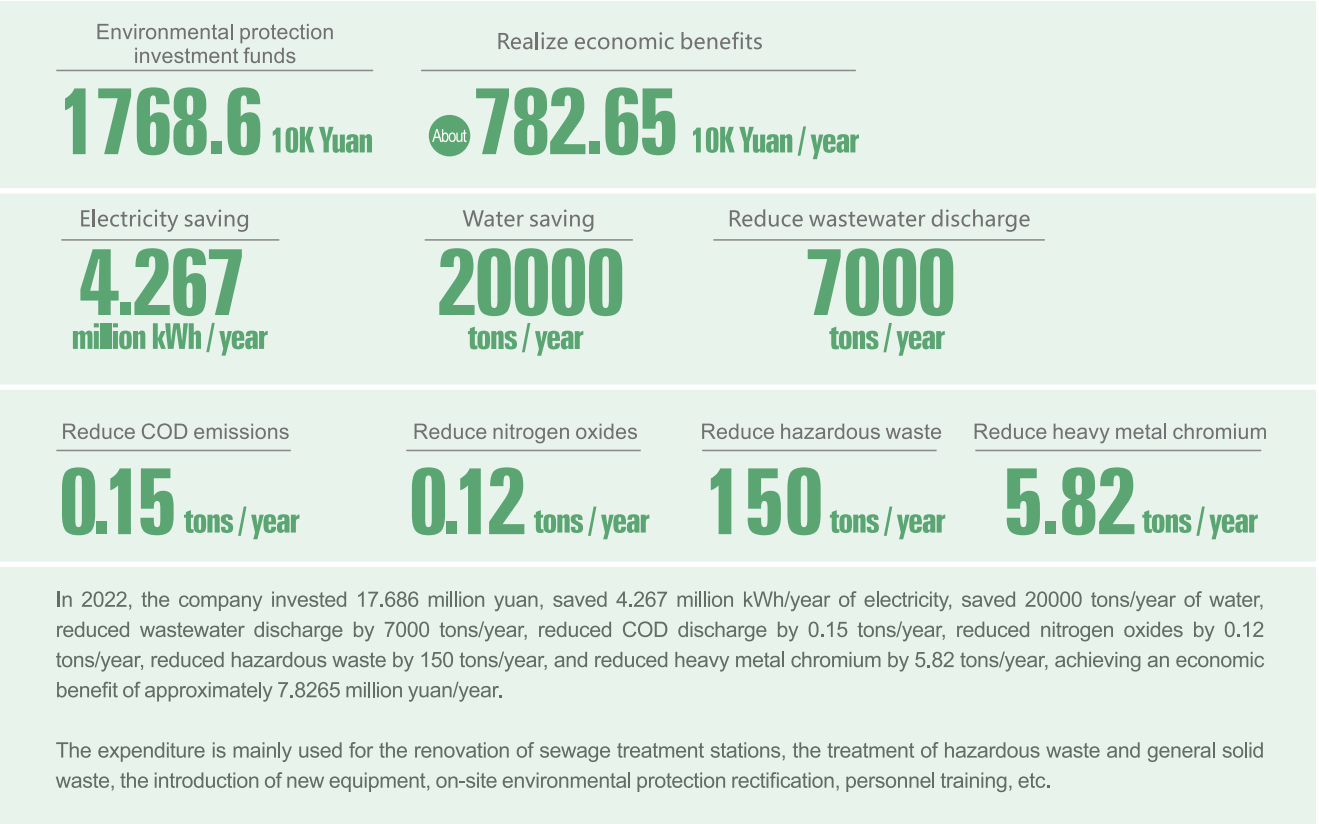
- **Temperature control:** Maintain the temperature of the battery pack between 25-40 °C during working; Single cell temperature difference ≤ 2 °C;
- When the thickness of the surface insulation coating is within 150um, the insulation performance meets 3000V.



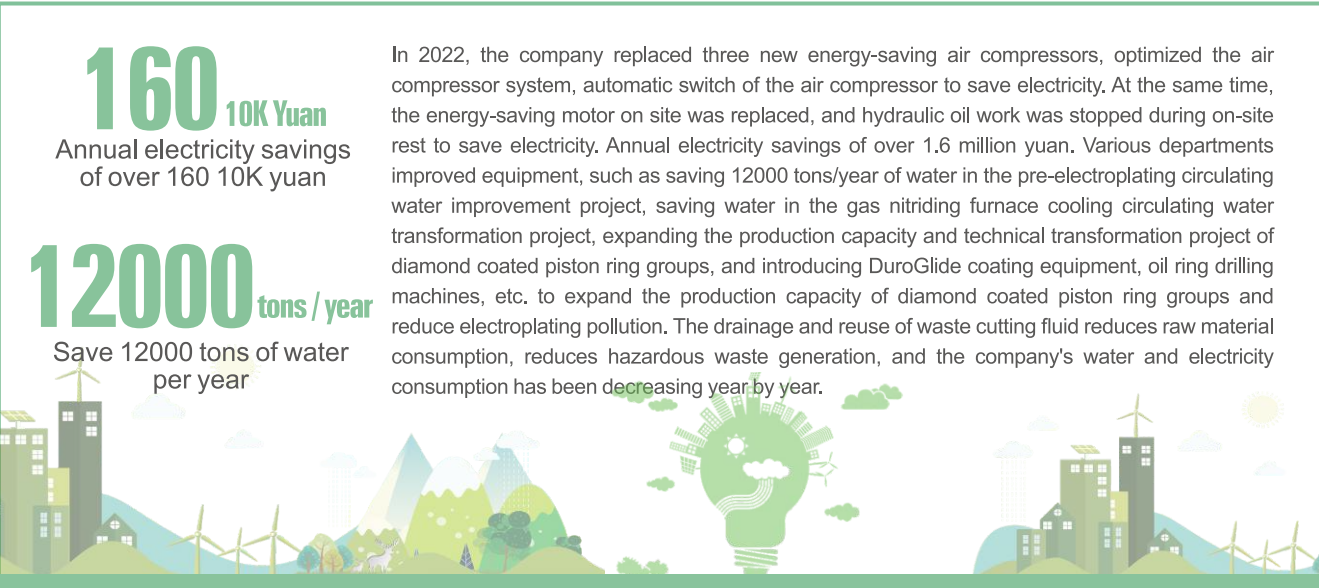


# Developing Green Manufacturing

## Total environmental protection expenditure and investment in 2022



## Reduce energy consumption



## Reduce emissions and save energy consumption

**In 2022, the company continued to reduce pollutant emissions and improved environmental protection facilities:**

1.The comprehensive sewage treatment station has been upgraded and renovated, and the original process has been improved. Purificants have been replaced, and demulsifiers and polyaluminum have been used to replace lime, greatly reducing sludge and effectively reducing hazardous waste. At the same time, pollutant emissions have been reduced to ensure that all pollutant indices meet the standards;

2.Improved the purification of forklift exhaust gas and installed purification devices to ensure compliance with emission standards;

3.Completed the installation and construction of the oil mist purification system in the grinding machine workshop, improving the working environment of the workshop while reducing pollutant emissions;

4.In order to reduce the discharge of hazardous waste, the Safety and Environmental Protection Department has also improved the oil sludge depot to make it more reasonable and prevent pollution. The company has purchased two sludge dryers and one oil sludge press machines. After reducing the weight of sludge (by more than 40%) and the amount of oil sludge treatment, through changes in the sewage station process, the amount of sludge generated has been reduced, greatly saving costs;

5. For the reuse of waste electroplating solution, the company has put all the iron removal lines into use, which can meet the requirements of iron removal and reduce the production of waste electroplating solution, greatly reducing its impact on the environment. At the same time, it has built a drying equipment for waste electroplating solution, making the production of waste electroplating solution close to zero;

6.Introduce low-temperature heat pump concentration technology for waste cutting fluid, reduce the production of hazardous waste, reduce the cost of hazardous waste disposal, and comprehensively reduce the amount by 90%. At the same time, carry out daily management to ensure normal operation;

7. Reduce the generation of three wastes through various improvements and control them from the source, such as the company's multi-stage filtration of discharged wastewater to achieve recycling, saving about 30000 tons of tap water annually and reducing wastewater discharge;

8. Replace all lighting equipment with energy-saving LED lamps, resulting in reduced power and brighter lighting;

9. In 2022, the company passed the second round of clean production audit and acceptance, further increasing ecological efficiency and reducing the risk of environmental pollution in the production process, products, and services.



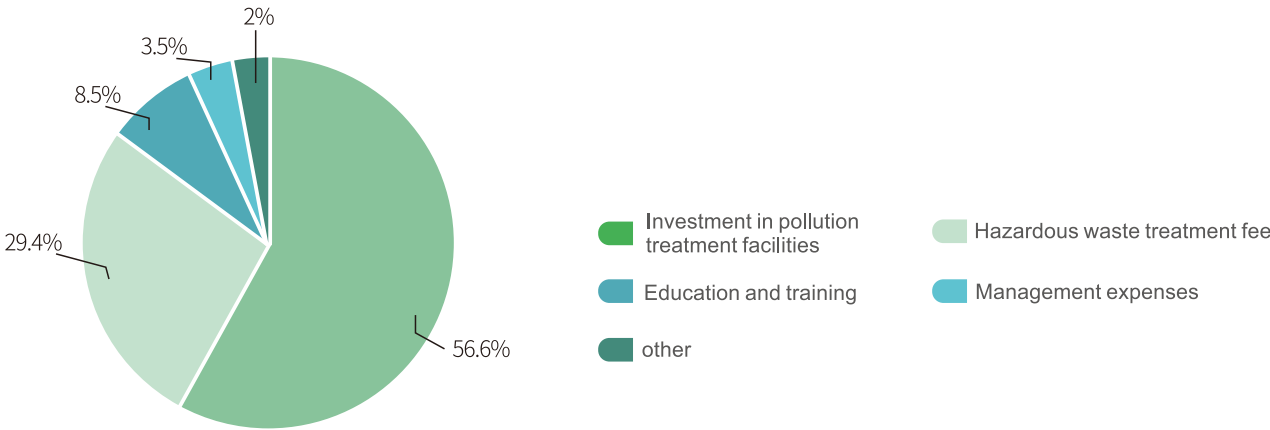
# Practice Green Operations

## Establish a sound environmental management system and implementation status

The company adheres to the ISO14001 environmental management system as the standard and establishes a sound environmental management system. Establishes a safety and environmental committee, clarifies the division of leadership in environmental management, and establishes a system for unified management, inspection and assessment of production and environmental protection. Convenes monthly environmental countermeasure meetings to rectify and track major environmental hazards, promotes and implements new environmental regulations, implements various new environmental protection work, and ensures stable and standard discharge of pollutants guided by emission permits; Introduces an environmental digital management system to achieve systematic and digital management of environmental equipment operation, hazardous waste management, monitoring data, and pollutant emissions.



In order to do a good job in environmental protection and the creation of green enterprises, all levels of the company have signed environmental protection target responsibility agreements, established a green target responsibility system for designated teams and grassroots leadership, and incorporated environmental management into all aspects of the company's management system. Strengthen publicity and activities in various departments and subsidiaries to enhance the environmental awareness of all employees in the enterprise. Simultaneously implement environmental management indicators into product output. Cooperate with government departments to report production and pollution situations, carry out energy-saving publicity weeks, and carry out environmental protection activities at the grassroots level, ensuring that responsibilities are in place, rewards and punishments are clear, and truly integrating environmental protection and environmental concepts into every employee.



## Environmental Assessment System (Third Party Certification)

The company has currently passed the ISO14001 environmental management system certification and is a national green factory and a green factory in Anhui Province. In 2022, it successfully passed the second round of clean production audits.

The year 2022 is a transitional year for the national 14th Five Year Plan and a crucial year for the implementation of the company's development plan [2021-2025]. This year, the company focused on the protection of water, soil, and gas with the scientific statement that "green water and green mountains are golden mountains and silver mountains". Focusing on pollution prevention and control, environmental protection improvement and efficiency, and green leadership, the goal was to comprehensively build a "clean, efficient, low-carbon, and circular" green enterprise. Environmental protection was regarded as an important part of the company's sustainable development strategy, and the responsibility of environmental protection was emphasized, Actively practice and assume social responsibilities for environmental protection and resource conservation, and help enterprises thrive.



## Environmental assessment, indicator detection and continuous improvement, recovery status

All projects of the company undergo environmental assessment in accordance with the three simultaneous requirements of environmental impact assessment. All indicators are tested in accordance with national requirements and all meet the standards. The company continuously improves through annual plans and internal management, technological updates, and other means.



According to the requirements of the pollution discharge permit and in combination with the actual situation of the company, the company regularly monitors the wastewater, exhaust gas, and noise emitted by the company to ensure that the indicator testing meets relevant requirements. The company's pollution management work is becoming increasingly legal and standardized, and the company will complete the certificate replacement work in 2022. The total discharge outlet is equipped with an online monitoring system, which is connected to provincial and municipal environmental protection departments for real-time monitoring. In April 2022, a new COD online monitoring equipment was replaced to better meet environmental monitoring needs. To ensure that all indicators are normal, the company conducts internal testing of all pollutants on a weekly basis, and all testing data is reported to the general manager. Report the pollutant emission values to the Municipal Environmental Protection Bureau for approval every quarter, and dynamically scroll them on the website of the Municipal Ecological Environment Bureau to be announced to the people of the city.

监控点位	废水总排口	生产状态	正常运行
监测时间	2023年04月12日	17:10:00	
监测项目	监测值	执行标准	单位
COD	91.100	300	mg/L
氨氮	10.970	25	mg/L
PH值	7.754	6-9	





Low carbon procurement, selection of environmentally friendly materials and processes (prohibiting toxic and harmful substances), and development of circular economy

In 2022, the company organized multiple personnel to participate in the "Carbon Peak and Carbon Neutrality" training organized by the country and provinces, actively responding to new requirements. By conducting a survey of the company's emission sources, we aim to gain a detailed understanding of carbon emission sources and develop a series of effective measures to reduce carbon emissions generated by business operations. Jointly with the procurement department, achieving energy conservation and consumption reduction mainly starts from the following aspects:



Procurement of energy-saving products

When purchasing materials and equipment, energy-saving products can be selected. For example, choosing lighting equipment with low energy consumption, energy-saving air conditioning, water-saving faucets, etc. to reduce energy consumption and loss;

Optimize procurement process

Optimizing procurement process can reduce the frequency of logistics transportation and reduce energy consumption during transportation. By optimizing supplier management and strengthening material distribution, we can reduce duplicate and empty transportation;

Establish an energy-saving procurement system

Establishing an energy-saving procurement system can standardize the procurement process and behavior, and strengthen energy-saving awareness. The company formulates energy consumption standards and promotes the procurement of green energy products;

Promote suppliers to adopt energy-saving technologies

Promoting suppliers to adopt energy-saving technologies can reduce energy consumption and losses from the source. The company collaborates with suppliers to promote energy-saving technology and green supply chain management, establish long-term strategic partnerships, and jointly promote energy conservation and consumption reduction;

Cultivate employee energy-saving awareness

Cultivating employee energy-saving awareness can reduce energy consumption and losses at the employee level. By conducting energy-saving training and organizing energy-saving activities, we aim to enhance employees' energy-saving awareness and action ability. The company strictly prohibits substances such as lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium (Cr6+), polybrominated biphenyls (PBB), and polybrominated biphenyl ethers (PBDE).

The company imported advanced PVD equipment from Japan and used pure physical methods to treat the surface of the product with chromium, greatly reducing the discharge of heavy metal waste; The company uses recyclable hydrocarbon cleaning to replace tetrachloroethylene that needs to be regularly scrapped, greatly reducing the generation of pollutants and improving the utilization rate of raw materials, achieving a circular economy. Introducing F-F iron removal technology from abroad to remove iron from electroplating waste liquid that has been scrapped in the process, ultimately enabling the waste liquid to be turned into treasure, achieving the goal of waste recycling and reuse. This not only saves a lot of costs for the company, but also saves the use of raw materials such as chromic anhydride, achieving a circular economy. Finally, to achieve carbon peak and carbon neutrality, bricks and tiles will be laid.

Add one new PVD equipment, which can add 2.1 million PVD rings per year, reduce the production of 4.5 million (approximately 1.5%) electroplating rings, reduce the generation of pollutants such as chromium containing waste liquid and chromium containing sludge, reduce the use of 2.83 tons of chromic anhydride, 0.53 tons of chromium containing waste residue and 4.65 tons of chromium containing sludge per year, and save 5000 tons of water.



During the chromium plating process, a large amount of chromium containing wastewater, chromium containing sludge, chromic acid mist, etc. can be generated. The DLC ring produced by the DLC coating piston ring production line can replace some electroplating rings, correspondingly reducing the production quantity of electroplating rings and reducing the environmental pollution caused by the production of electroplating rings.

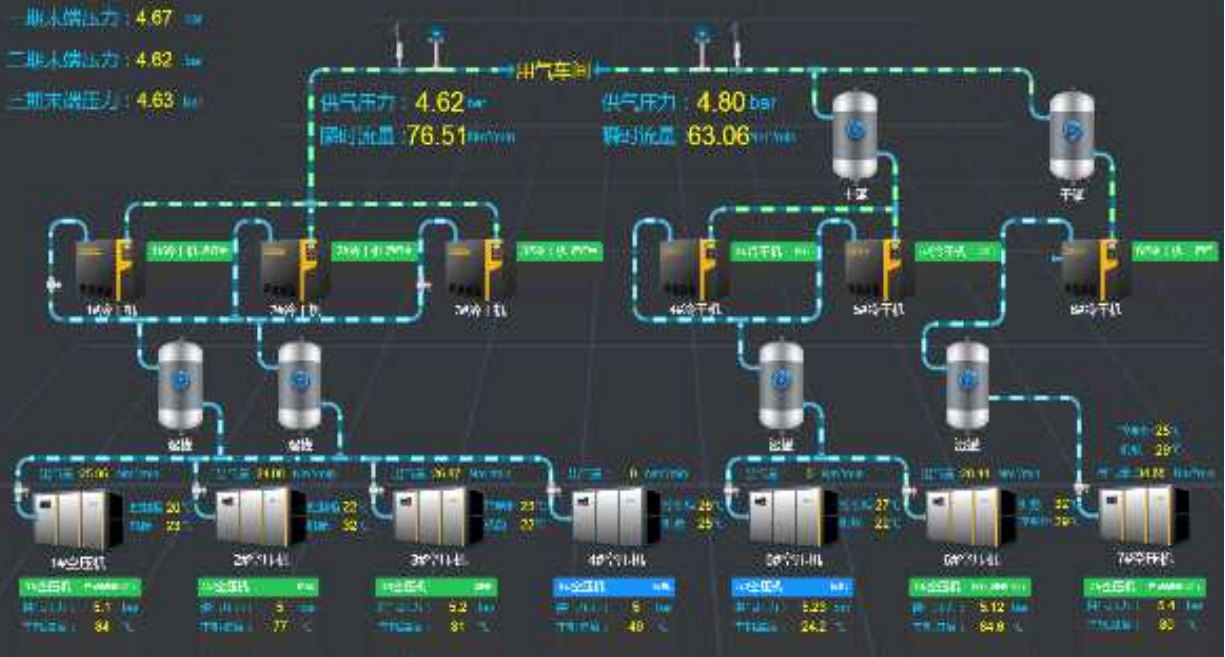
After establishing two production lines for DLC coated piston rings, an annual increase of approximately 3.6 million DLC rings can be achieved, and an annual reduction of approximately 9 million (approximately 3%) in the production of electroplated chromium rings can be achieved. This can reduce the use of 5.66 tons of chromic anhydride per year, 1.07 tons of chromium containing slag and 9.3 tons of chromium containing sludge per year, and save 10000 tons of water per year. The electricity consumption of 10000 DLC rings is 10500 kWh, and the electricity consumption of 10000 electroplated rings is 0.464 million kWh. This can save 1.2924 million kWh of electricity per year, At the same time, it also reduces the emission of chromic acid mist during the electroplating process, reducing the pollution of chromic acid mist to the atmosphere. Annual reduction of 5.66 tons of chromic anhydride usage, 1.07 tons of chromium containing waste residue, and 9.3 tons of chromium containing sludge, saving 10000 tons of water.



DLC coating piston ring production line

In 2022, the company invested in an intelligent control system for air compressors, saving 1.6 million kilowatt hours of electricity annually. It also invested in energy-saving air compressors, saving 950000 kilowatt hours of electricity annually; Energy saving transformation test of electroplating rectifier, expected to save 2 million kilowatt hours of electricity annually; Invest in digital detection systems for key energy consuming equipment such as PVD, DLC, and casting furnaces, and explore energy-saving potential. It is estimated to save 2.5 million kilowatt hours of electricity annually. In addition, the technical department also replaced energy-saving motors on the workshop site, and the hydraulic oil work was stopped during break time to save energy.

Air compressor intelligent control system





## Carbon emission

With the continuous improvement of global environmental awareness and government restrictions on carbon emissions, reducing corporate carbon emissions has become a hot topic. The company mainly adopts the following feasible specific measures to achieve carbon emission reduction goals.



**1. Energy efficiency improvement:** By optimizing equipment, processes, and energy management systems, energy utilization efficiency is improved, while strengthening equipment maintenance and modernization to reduce unnecessary energy consumption and carbon emissions. Widely adopting energy-saving technologies and equipment, such as LED lights, intelligent systems for air compressors, etc.

**2. Reduce carbon emissions from transportation:** Encourage employees to adopt more environmentally friendly and energy-efficient transportation methods, such as public transportation, cycling, shared bicycles, etc.

**3. Advocate for low-carbon living for employees:** Encourage employees to save energy, travel low-carbon, and reduce their carbon footprint through low-carbon living guidelines, corresponding rewards, and other means; Strengthen employees' awareness and participation in environmental protection, and further promote the green development of the enterprise.

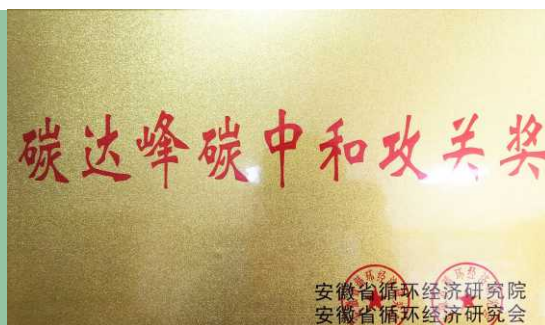
**4. Optimize the company's supply chain:** Collaborate with suppliers to promote green transformation of the supply chain, select low-carbon materials, products, and green transportation vehicles.

**5. Building a Green Factory:** The company has been awarded a national level green factory. In the production process, it adopts low energy consumption, safe and reliable processes and equipment, increases green areas and public green spaces, achieves zero emissions, zero waste, and reduces environmental pollution caused by production.

**6. Addressing climate change:** Understand the carbon footprint assessment results of enterprises, develop and implement low-carbon and environmental protection strategies and measures suitable for enterprises based on the assessment results, actively promote work related to environmental protection, such as carbon trading, carbon cooperation, and carbon market potential, to further reduce the impact of climate change.

**7. Introducing green energy:** Adopting green and renewable energy sources such as solar energy to gradually reduce dependence on fossil fuels and reduce carbon emissions.

In short, reducing carbon emissions is not only a manifestation of corporate social responsibility, but also can improve energy efficiency, reduce costs, create new business opportunities and competitive advantages, and drive companies towards a more sustainable development path.



## Protecting precious animals and plants and their natural habitats to reduce their impact on biodiversity

Biodiversity is ubiquitous in places with living activities, and society as a whole bears the responsibility to protect it, and businesses are no exception. The company enhances its corporate culture and employee quality by practicing environmental protection and wildlife conservation activities, and also hopes that more responsible enterprises can implement the goal of green and sustainable production construction and development in the long run. The company actively controls, reduces, and stops the development of key areas of biodiversity, evaluates the impact of existing engineering facilities and production operations on biodiversity, and optimizes treatment as much as possible to make it more suitable for biodiversity conservation needs. To jointly protect our planet for survival and ultimately achieve sustainable development.

The company always regards greening, beautification, and purification of the factory environment as an important task in creating an environmentally friendly enterprise. By planting, creating, and distributing greenery, the company stands out as "green". The investment intensity control index for industrial projects is 312.864 million yuan/hectare, the plot ratio control index is 0.6958, and the internal greening rate of the enterprise is 22.6%. The company also takes the "4.22" Earth Day, "6.15" World Environment Day, and Energy Conservation and Emission Reduction Promotion Week as opportunities to promote green culture, widely carry out environmental protection publicity work, and strengthen employees' environmental protection awareness.



In May 2022, the company participated in the Anqing Environmental Protection Federation's 2022 6th Five-Year Environmental Day and Biodiversity Promotion Activity and Environmental Protection Century Tour organized at the Caizihu National Wetland Park in Anqing City.



Looking forward to the future, the company will continue to deepen its awareness of social responsibility fulfillment, promote the deepening implementation of green enterprises, and based on the achievements made, continue to carry out and practice the "zero emission" environmental development concept, enhance environmental protection and green enterprise fulfillment efforts, and promote the company's standardized and sustainable development.





» Responsibility Performance ➡ **Open Governance**  
Deepen win-win cooperation and sailing international journey

Global partners

**10** partners

Establishing a Sino  
foreign joint venture company

**14** subsidiaries

Establishing school-enterprise  
cooperation with domestic universities

**7** universities

## Open Governance Mechanisms

### ■ Open innovation mechanism

#### Integrate innovative resources

- 1 Integrate internal innovation resources:** establish a group technology innovation committee, coordinate the resources of major joint ventures, and form multiple teams to develop 2.0 products; In 2022, the New Energy and New Materials Experimental Building of the Group's Technology Center was built, gradually establishing various individual product laboratories; Transform together with traditional partners such as TPR and Tenneco to establish joint development and communication mechanisms.
- 2 Enriching the role of postdoctoral workstations and striving to continue the construction of academician workstations:** launching industry university research cooperation with higher education institutions such as Zhejiang University, Hefei University of Technology, and Jiangsu University, and jointly creating innovation platforms with research institutions such as State Machinery Group Research Institute, Hefei University of Technology, and Anqing Normal University. It is planned to create provincial-level innovation centers in 2023 and 2025, respectively.
- 3 Improve the technology strategic alliance:** Build an energy-saving and emission reduction research and development community with traditional power customers, and provide overall technical solutions by utilizing the advantages of integrated supply; Establish deep cooperative relationships with traditional vehicle companies, new energy departments, and emerging new energy vehicle companies to jointly develop new energy vehicle components; Deep cooperation with diesel engine customers to develop hydrogen fuel system components.
- 4 Integrate product design and development resources:** establish a PLM project management platform, try to introduce twin technologies, and shorten the design and development process; Introduce design software such as PROE and vigorously cultivate CAE product and process simulation designers; Enhance the software design capability of assembly components and add software content to future control assembly components.

#### Reform and innovation mechanism

- 1 Establish a sound R&D project management system:** Establish a management system for the entire process of R&D project initiation, budgeting, execution, and evaluation. Internally select leading technical talents to serve as the leader of the R&D research group, determine the R&D direction, allocate R&D resources, implement a task based system for related R&D projects, and implement a bidding system for new R&D projects.
- 2 Strengthening intellectual property rights:** Strengthening the intellectual property commissioner system, increasing the number and success rate of patent applications, focusing on the strategic layout of emerging industries, formulating more than 10 national/industry standards, and exerting a certain influence in the fields of automotive engines, transmissions, new energy vehicle three electric systems, hydrogen fuel cells, and so on.

## ■ Open employment mechanism



Industry-University-  
Research  
Cooperation Model

Using postdoctoral workstations as carriers, we engage in industry university research cooperation with universities such as Zhejiang University, Hefei University of Technology, and Anhui University of Technology.



Flexible talent  
introduction  
system

It does not require everything, but only the use, and employs experts in the form of technical consultants to guide the development of 2.0 products and provide technical training guidance.



Internal open  
recruitment  
system

In 2022, a total of 48 batches of internal recruitment were carried out, and 65 frontline workers were selected for management and technical positions.

## ■ Technological openness

Adhere to the principle of "highlighting innovation, strengthening cooperation, and developing cooperation", actively carry out deep technical cooperation with excellent domestic and foreign enterprises and first-class universities, achieve high-level and diversified technical cooperation, and promote the diversification of technology development methods with an open attitude.

Open technology model	Main features
The "Trinity" integration mode	A joint entity of industry, academia, and research, with enterprises as the main body and universities and research institutes as the technological support, to transform the industrialization projects of universities into productive forces.
Bell Laboratory mode	Utilizing the advantages of the joint venture group, the general technology mainly relies on the digestion, absorption, and innovation of advanced foreign technologies, integrating products with independent intellectual property rights; The role of cutting-edge technology in enterprise technology centers, postdoctoral workstations, etc. is based on independent research and development by enterprises.
Internationalization mode	Establish research and development institutions with multinational corporations to achieve the sharing of technology, goods, and benefits.



Strengthen technical exchange and cooperation with universities



Carry out international cooperation and exchange

## ■ Moving towards the capital market

In order to further promote innovation and development of the enterprise, ARN Group has decided to split and integrate high-quality resources within the group into the capital market. By entering the capital market and using market mechanisms to further standardize business management, improve corporate governance structure, improve operational quality, make enterprises more open, compliant, and subject to extensive social supervision. Meanwhile, utilizing the financing convenience of the capital market, enterprises can increase their investment in research and development of new technologies and products, thereby forming products with independent intellectual property rights and putting them into production. In this way, enterprises can not only achieve their own development, but also create more value for society.

## ■ Open governance guarantee



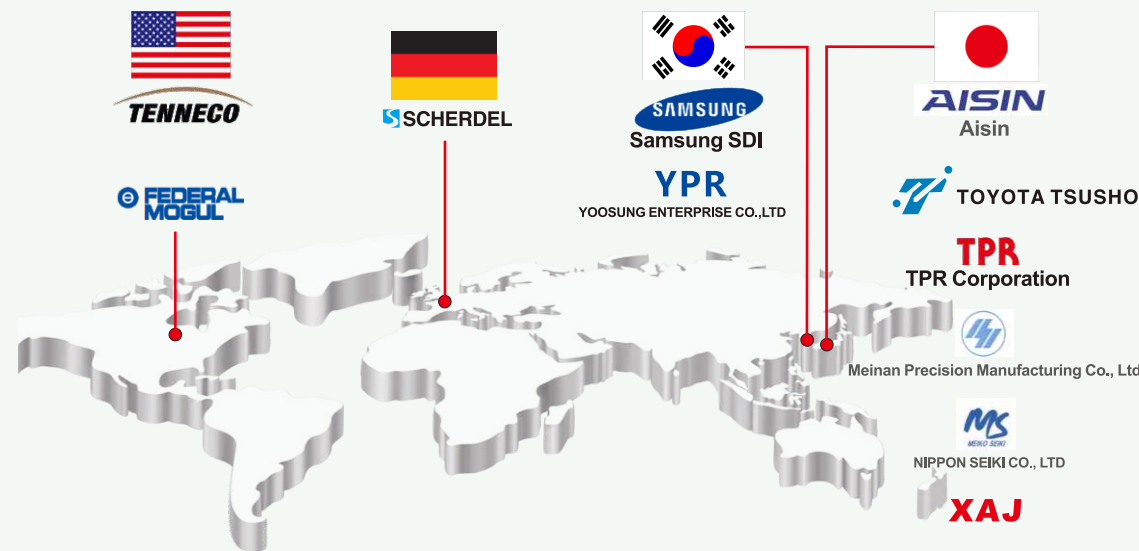
The company encourages operators to effectively fulfill their business responsibilities through governance mechanisms and established performance goals, and establishes an open guarantee mechanism to enhance supervision and ensure the healthy and stable operation of the enterprise. Including shareholder meeting, board meeting, supervisory board, disclosure of assessment data, social responsibility reports, company websites, informative publications, etc.



## Open and Cooperative Corporate Culture

### ■ Sino foreign joint venture "Gene"

#### Partner



**Tenneco**, one of the largest companies in the world focused on powertrain, serving the global engine OEM



**TPR Corporation**, one of the three major piston ring manufacturers in Japan



**ART METAL MFG., LTD**, a century old enterprise specializing in piston manufacturing in Japan, merged with Aisin Precision Machinery Co., Ltd. in April 2017



**Scherdel**, Germany - the world's largest manufacturer of automotive springs



**Aisin**, a Fortune 500 company in Japan, is a world-renowned professional R&D and manufacturer of automotive automatic transmissions



**Samsung SDI**, South Korea - a Fortune 500 company and the world's largest lithium battery manufacturer



**Toyota Tsusho**, a Fortune 500 company and a core enterprise of Toyota Group in Japan



**NIPPON SEIKI CO., LTD**, a Japanese company, was founded in March 2002, with its headquarters located in Tsushima, Aichi Prefecture, Japan



**Meinan Precision Manufacturing Co., Ltd**, Japan - established in October 1938, headquartered in Nagoya, Japan



**YOOSUNG ENTERPRISE CO.,LTD**, the largest automotive parts manufacturing enterprise in South Korea, mainly produces various core components of internal combustion engines, such as piston rings, pistons, cylinder liners, valve seats, air compressors, etc

#### Joint venture companies (14)



In June 1996, Anqing TP Goetze Piston Ring Co., Ltd., abbreviated as ATG, was established through a joint venture between Anqing Piston Ring Factory, the world's largest component manufacturer - Tenneco Company in the United States, and TPR Company, one of the three major piston ring factories in Japan.



In December 1999, Anqing TP Powder Metallurgy Co., Ltd., abbreviated as ATP, was established through a joint venture between ARN Group, Japanese TPR Company, and Federal-Mogul.



In June 2002, Anqing ART TP Piston Co., Ltd., abbreviated as AAT, was established through a joint venture between ARN Group, Japanese TPR Company, and Japanese ART Company.



In June 2004, Anqing TP Goetze Liner Co., Ltd., abbreviated as ATGL, was jointly established by ARN Group, TPR Corporation of Japan, and Anqing TP Goetze Piston Ring Co., Ltd.,



In December 2004, Anqing TP Goetze Engine Co., Ltd., abbreviated as ATGE, was established through a joint venture between ARN Group and TPR Company in Japan.



In February 2005, China Unified Piston Ring Co., Ltd, abbreviated as CUPR, was jointly established by ARN Group, YPR Corporation of South Korea, and TPR Corporation of Japan in Hebei.



In October 2006, Anqing Scherdel Automotive Parts Co., Ltd., abbreviated as ASP, was established through a joint venture between ARN Group and Scherdel in Germany.



In May 2013, Anhui Huanming Precision Control Co., Ltd., abbreviated as AHM Company, was jointly established by ARN Group, Japanese Meinan Seiki Co., Ltd and Japanese Meico Seiki Co.



In January 2014, Samsung SDI-ARN(Xi'an) Power Battery Co.,Ltd., abbreviated as SAPB Company, was jointly established by ARN Group and Samsung SDI in South Korea.



In March 2014, Anqing TP Electrical Plastics Co., Ltd., abbreviated as ATEP, was established through a joint venture between ARN Group and TPR Company in Japan.



In June 2014, Federal-Mogul (Anqing) Powder Metallurgy Co., Ltd., abbreviated as FMAP, was jointly established by ARN Group, Japanese TPR Company, and Federal-Mogul.



In April 2015, Anhui Tsusho Logistics Co., Ltd., abbreviated as ATL Company, was established through a joint venture between ARN Group and Toyota Tsusho in Japan.



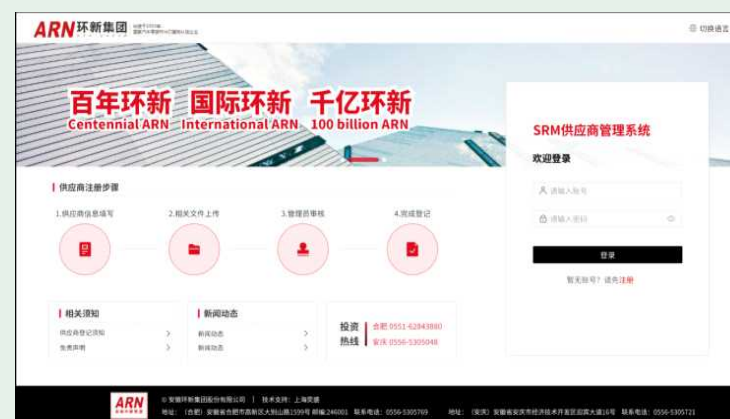
In November 2018, Aisin Anqing Automotive Parts Co., Ltd., abbreviated as AAAC, was jointly established by ARN Group and Aisin Precision Machinery Co., Ltd. in Japan.



In March 2022, TP Anqing New Energy Research and Development Co., Ltd., abbreviated as TANE, was jointly established by ARN Group and TPR Corporation of Japan.

## Shared information, shared risks, shared profits, and built a collaborative and win-win supply chain system

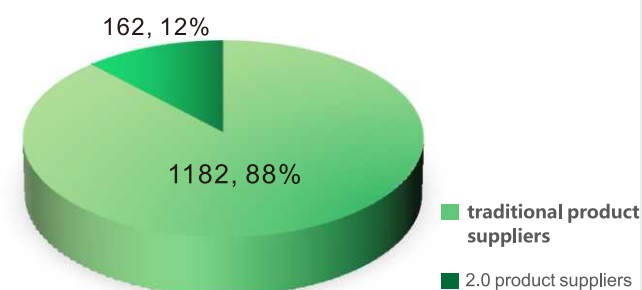
Starting from April 2022, the company has integrated existing procurement systems such as GPMS, IWMS, SOP, etc., and established a centralized procurement management platform (SRM system) (Supplier Relationship Management), achieving transparency in supplier access, standardization of materials and prices, and optimization of costs;



SRM system login interface

Based on the development trend of the automotive market and the implementation of the national dual carbon concept, ARN Group has been keeping up with the times and has been laying out its new energy field since 2020. The company continues to develop qualified suppliers of new energy products in accordance with its strategy. In the past three years, it has developed a total of 162 new energy product suppliers, accounting for 12% of the total development quantity;

Number of new energy suppliers added from 2020 to 2022



In order to further improve customer satisfaction, reduce company costs, and optimize the overall process quality of the company, the company has renamed the Procurement Committee as the Supply Chain Management Committee, which will manage and improve material procurement, production, planning, inventory, delivery, and other aspects to meet the needs of the company's rapid development.

## International Development Journey

### The first step "Going out"

ARN Group has been committed to exploring the international market and establishing four overseas companies from 2008 to 2022:

- In 2008, Xin'an Commercial Co., Ltd. was established in Japan with a registered capital of 63 million yen, mainly engaged in the import and export of raw materials and equipment;
- In 2016, ARN International Holdings Limited was established in Germany with a registered capital of 10.025 million Euros, mainly for overseas mergers and acquisitions;
- In 2016, ARN (Japan) Co., Ltd. was established in Japan with a registered capital of 50 million yen, mainly engaged in the import and export of raw materials and equipment;
- In 2021, ARN International (Hong Kong) Co., Ltd. was established in Hong Kong with a registered capital of 3 million US dollars, mainly engaged in the import and export of raw materials, equipment, and enterprise management.

Use these companies as bridges to find excellent investment projects and partners.

### Step 2 "Step in"

The core affiliated enterprise of ARN Group has established a joint venture project with its partner Germany's Scherdel in Mexico, mainly producing key components for the cooling system of new energy vehicles, supporting the world's leading new energy vehicle companies.

### Step 3 "Step Up"

Looking forward to the future, ARN Group will continue to strive to enhance brand value by strengthening technological innovation, opening up the industrial chain, and expanding the international market, continuously improving the operational level of the enterprise, creating products as high-end representatives, achieving industrial integration development, and advancing towards the international market.







## » Responsibility Performance ➡ Sharing the Future

Collaborate with industries for creation, Cooperate with society for symbiosis

Tax paid in 2022  
**5.89** million Yuan

Social welfare  
donation funds  
Over **70** 10K Yuan

New employment  
opportunities  
**904**

Number of  
volunteers  
Over **600** people

## Resource sharing, leading industry progress

### ■ Establishing a mutual trust business cooperation mechanism

Based on the original goal of providing higher technological content products to the industry, from 1996 to 2022, ARN Group has established partnerships with ten enterprises from five countries, including three Fortune 500 companies, to jointly form joint ventures. With mutual sincere cooperation and cohesion, ARN brand has moved towards industry advancement and is known as a model enterprise for joint venture cooperation. It has won multiple awards from domestic and foreign OEMs, including "Strategic Supplier", "Excellent Quality Award", "Best Partner", and "Cooperation Win Win Award". In 2022, ARN Group entered the mandatory list of 30 components in China's automotive industry.



### ■ Creating Higher Value for Partners

ARN Group has always formed a community of shared future with stakeholders with a shared mindset, and achieved mutual development through sharing. Since its establishment, the company has maintained a growth trend, with sales reaching 13.937 billion Yuan in 2022. At the same time, more than 3% of the annual sales revenue is invested in innovative research and development to meet the requirements of product cycle iteration. We collaborate with domestic and foreign OEMs to develop and design simultaneously, contributing to the progress of the industry with ARN strength.

**国家技术创新示范企业**  
工业和信息化部

## Legally paying taxes striving to be credit model

ARN Group builds an integrity system through practical actions, paying taxes in accordance with the law and obtaining the honorary title of "A-level Tax Credit Enterprise". In 2022, ARN Group overcame the adverse effects of the epidemic and made every effort to focus on production, achieving good business performance and social benefits. Throughout the year, it achieved sales revenue of 13.937 billion yuan and paid taxes of 589 million yuan.

**13.937**  
billion yuan

Annual sales revenue for 2022

**589**  
Million yuan

Tax paid in 2022



## Driving employment , serving society

Based on technological innovation, ARN Group actively promotes new projects to take root. While the new production lines have been put into operation, it has increased the demand for employment in Anqing and surrounding areas, as well as the employment needs of graduates from universities and special talents. For the land acquisition farmers in Wulidun and Laofeng towns around the company, policy measures have been taken to provide employment for their children. Currently, there are over 300 land acquisition workers, all of whom have signed labor contracts. In 2022, a total of 904 new employment positions were created.

**300+**  
workers

Existing land acquisition workers in the company

**904**

New employment opportunities in 2022



## Enthusiastic in public welfare, sharing development achievements with society

### Poverty alleviation and rural revitalization

In the poverty alleviation and assistance work, the assistance guidance group of ARN Group has visited Xinling Village, Mashan Village, and Cihu Village in Taici Town, Wangjiang County multiple times for on-site research, regularly visiting and comforting left-behind children, elderly people, and people in need. The total assistance funds for projects such as primary school complex buildings, photovoltaic power generation, and specialty planting are about 1.45 million yuan.

Focusing on local talent cultivation, ARN Group is enthusiastic about education and public welfare. It has donated funds to build 11 Hope Primary Schools in Yuexi County, the Taihu Lake County and other places, donated funds to set up scholarships in Anqing Vocational and Technical College, donated physics laboratories in Anqing Normal University, and built a digital library for Anqing No. 1 Middle School. More than 3.5 million yuan has been donated for education, realizing the full coverage of education from primary school to university.

#### Donated schools:

1. Yangting Hope Primary School in Yixiu District
2. Hope Primary School in Jiangjun Village, Yingjiang District
3. Hope Primary School in Yutan Village, Zongyang County
4. Xieshan Primary School in Gaohe Town, Huaining County
5. Kunlun Village Hope Primary School in Qianshan County
6. Tangda Hope Primary School in the Taihu Lake County
7. Hope Primary School in Xiangpu Town, Tongcheng City
8. Hope Primary School in Changling Town, Wangjiang County
9. Central Primary School in Jiugu Town, Susong County
10. Wangcheng Village Hope Primary School in Yuexi County
11. Cihu Village Primary School in Wangjiang County
12. Anqing No.1 Middle School Electronic Digital Library
13. Physics Laboratory of Anqing Normal University
14. Anqing Vocational and Technical College Scholarship





43<sup>10K Yuan</sup>

Donation funds for rural revitalization in 2022

2419<sup>10K Yuan</sup>

Purchase of peripheral agricultural and sideline products

After the initial victory in the poverty alleviation battle, the company's party committee adheres to the concept of "poverty alleviation without assistance", further consolidates and expands the achievements of the poverty alleviation battle, and promotes rural revitalization. In 2022, ARN Group donated 100,000 yuan to Changshan Village, Laofeng Town, Anqing City, 330,000 yuan to Wangjiang District, Anqing City, and purchased a total of 24.19 million yuan of agricultural and sideline products from surrounding townships for rural revitalization and construction.

The First Secretary of Mashan Village, Wangjiang County, paid a special visit to thank ARN Group for its long-term assistance and presented the banner.



## Consolidate the disadvantaged masses

At the beginning of 2022, the Chinese and Japanese management leaders of the AAT company of the group went to Mashan Village, Taici Town, Wangjiang County, Anqing City to carry out a pre-Spring Festival visit. They sent rice, oil, and other daily necessities as well as Spring Festival funds to the two families who helped each other, and expressed their good wishes for the holiday.



## Public welfare donations, walking with charity

In September 2022, ARN Group donated 20,000 yuan to Hefei Vocational and Technical College to help disadvantaged students, 100,000 yuan to Hefei University of Technology for university student scholarships, and 12,000 yuan to local charitable organizations to assist disadvantaged students; In order to improve the living standards of the group's struggling employees, in December 2022, a donation of 140,000 yuan was made for comforting.



## Be conscientious in fighting against the COVID-19

In March 2022, COVID-19 broke out in Anqing. In order to help the anti-epidemic work in Anqing and care for the workers and volunteers at the front line of prevention and control, the Anqing Federation of Trade Unions organized various enterprises to carry out a comforting activity. Upon receiving the notification, ARN Group immediately responded and, under the organization and leadership of Cai Xiangdong, Deputy Secretary of the Group Party Committee and Chairman of the Trade Union, went to the Tianyu Times Hotel to deliver comforting worth ten thousand yuan, including milk, fruit, food, to the medical staff and volunteers in Lu'an City who helped fight the epidemic in Anqing.





## Volunteer activity for "Protecting Green Wetlands"

On May 30, 2022, the "National Science and Technology Workers' Day" and the official implementation of the "Wetland Protection Law" in 2022, employees of ARN Group spontaneously organized a theme activity of "Protecting Green Wetlands and Building Ecological Civilization" in the Caizihu Wetland Protection Zone of Anqing City to promote scientific knowledge of wetland protection to the outside world.



## Caring for the next generation and carrying out safety education activities

In order to further enhance the safety awareness of Anqing citizens, especially children, ensure road traffic safety, and reduce traffic accidents, the group AAAC company, under the guidance of the municipal government and the Education and Sports Bureau, began planning and implementing a painting competition with the theme of traffic safety enlightenment in April 2022. A total of 10000 painting works were collected and ultimately submitted to the Anqing Education and Sports Bureau for final selection, Contributed to the environmental innovation efforts of Anqing City in promoting the "Safe Entry into Campus" initiative.



## Build the community into a happy home

The community where ARN Group was originally located is Nanmen Community. To build a harmonious community relationship, the group organizes employees to participate in the Nanshui Community Volunteer Activity every year. In 2022, a total of 500 volunteers participated in the Nanshui Community.



## Obligation to plant trees for the benefit of the people

In March 2022, in order to actively respond to the call of the country to vigorously carry out afforestation, promote the pace of ecological civilization construction, and enhance the green environmental awareness of cadres and employees, the group party committee organized more than 40 party members, grassroots cadres, and employee representatives of the group to carry out voluntary tree planting activities in the new city in the northern part of Anqing City and the Yangtze River coastline, planting more than 260 osmanthus and crape myrtle seedlings.



In the face of natural disasters, the Party Committee of ARN Group holds great love and actively donates. In the 2008 Wenchuan earthquake in Sichuan, a donation of 1 million yuan was made; In the 2010 Yushu earthquake in Qinghai, a donation of 1 million yuan was made; Donated 1.05 million yuan for flood relief in the summer of 2016; In order to fight against the COVID-19 epidemic, 1.35 million yuan was donated.

Opening the "Public Welfare Booklet" of ARN Group, over the past 20 years, nearly 20 million yuan has been invested in public welfare projects such as public education assistance, poverty alleviation, targeted poverty alleviation, and helping employees in difficult enterprises. Behind these series of numbers, there is passionate blood, conveying a sense of truth. ARN Group has composed a great love anthem for public welfare and poverty alleviation through years of practical actions.



Scan the QR code to read more news about public welfare activities



# »Responsibility Outlook

## Outlook 2023

Gather the strength to forge ahead and create a magnificent chapter of the times! 2023 is the beginning year of fully implementing the spirit of the 20th National Congress of the Communist Party of China, and also a key year for technological innovation, transformation and upgrading of ARN Group. We will continue to deeply implement the new development concept of "innovation, coordination, green, openness, and sharing", and unwaveringly promote the upgrading of traditional internal combustion engine components; Guided by the market, accelerate the research and development of new energy vehicle components and technological innovation. Let ARN become a more trusted power product expert for customers, make the environment more harmonious due to our continuous progress, and make society more beautiful due to our unremitting efforts!

Key Performance

Indicator	Unit	2022	2021	2020
Sales revenue	10K Yuan	1,393,655	1,224,421	1,150,369
Including sales revenue from affiliated companies	10K Yuan	46,367	—	—
Payment of taxes	10K Yuan	58,900	65,402	52,000
Industrial sales revenue	10K Yuan	1,131,332	908,561	912,028
New product sales revenue	10K Yuan	670,348	584,240	422,725
Proportion of new product sales	%	48.10%	47.70%	46.40%
New product profit tax	10K Yuan	128,707	107,386	93,300
Total assets	10K Yuan	1,412,236	1,336,066	1,211,958
Net assets	10K Yuan	861,704	811,097	679,321
Own capital ratio	%	61.02%	60.70%	56.10%
R&D investment	10K Yuan	27,980	21,978	20,411
R&D to sales ratio	%	2.50%	2.40%	2.20%
Technological innovation research and development project approval	Pcs	188	141	139
Number of new technologies, processes, and products developed	Pcs	189	217	201
Total number of employees	Person	7151	7,052	6,363
Number of male employees	Person	5417	5,315	4,711
Number of female employees	Person	1734	1,737	1,652
Number of foreign employees	Person	50	44	42
New recruitment	Pcs	904	1,100	400
Labor contract signing rate	%	100%	100%	100%
Social insurance coverage rate	%	100%	100%	100%
Union coverage	%	100%	100%	100%
Proportion of female managers	( Female : Male )	15%	14%	13%
Skilled talent training	Per Person	3041	2897	2752
New employee training	Per Person	846	1122	811
Management training	Per Person	657	626	594
Professional technical training	Per Person	1073	854	811
Employment rate of disabled people	%	0.81%	0.81%	0.81%
Employee physical examination coverage rate	%	100%	100%	100%
Incidence rate of occupational diseases	%	0%	0%	0%

Indicator	Unit	2022	2021	2020
Labor violations	Pcs	0	0	0
Total investment in employee training	10K Yuan	860	850	823
Employee training coverage rate	%	100%	100%	100%
Per capita training time	Hours	105	104	97
Employee satisfaction	Score	89.8	89.8	89.5
Employee turnover rate	%	6.30%	8.40%	8.40%
Number of volunteers	Person	600	520	550
Accumulative donation of social welfare funds	10K Yuan	1,743	1,671	1,441
Investment in safety production funds	10K Yuan	3126	2689	2270
Serious injury or above safety accidents	Pcs	0	0	0
Total investment in environmental protection	10K Yuan	370	3500	300
Energy consumption per unit output value	Tons of standard coal/10K Yuan	0.15	0.15	0.16
Water consumption per unit output value	Tons of water/10K Yuan	4.197	3.999	4.939
Energy savings per unit output value	Tons of standard coal/10K Yuan	0.02	0.02	0.02
Unit water consumption	m³/10K Yuan	20.41	20.98	24.54
Unit power consumption	Kwh/10K Pcs	4.33	4.81	5.19
Unit consumption of hazardous waste treatment capacity	kg/10K Pcs	32.39	49.6	59.52
COD emissions	Ton	73.9	75.12	76.043
Recycling rate of waste residue	Ton	0.65	0.6	0.65
Wastewater recycling rate	Ton	0.58	0.58	0.6
Total number of Class A & B material suppliers	Pcs	66	65	65
Proportion of cooperative suppliers with more than 10 years	%	60%	60%	55%
Number of strategic alliances	Pcs	11	11	11
Contract performance rate	%	100%	100%	100%
Number of corruption and bribery cases that occurred throughout the year	Pcs	0	0	0
Internal system audit rate	%	100%	100%	100%
Product qualification rate	%	100%	100%	100%
Customer complaint resolution rate	%	100%	100%	100%
Participation rate of quality training activities	%	100%	100%	100%
Customer information leakage incident	Pcs	0	0	0



Report Description

● Report Preparation Reference Standards

Guidelines for Writing Chinese Corporate Social Responsibility Reports  
Guidelines for Social Responsibility of Chinese Industrial Enterprises and Industry Associations

● Report reliability assurance

The company guarantees that there are no false records, misleading statements, or significant omissions in the content, and assumes responsibility for the authenticity, accuracy, and completeness of its content.

● Report organizational scope

Anhui Ring New Group Co., Ltd. (refer to the company organizational chart), and 19 subsidiary companies, abbreviated as ARN Group.

● Report time range

The 7th social responsibility report of the company covers the period from January 1, 2022 to December 31, 2022, with some content exceeding the above scope.

● Report release cycle

The social responsibility report of Anhui Ring New Group Co., Ltd. is an annual report.

● Report Data Description

The financial data disclosed in this report comes from financial statements, while other data comes from statistical statements. The monetary amounts involved in this report are measured in RMB, unless otherwise specified.

● Report Release Form

This report is presented in both paper and PDF formats, with the PDF format available on the company's website at [www.china-arn.com](http://www.china-arn.com)

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Opinion Collection

In order to continuously improve the social responsibility work and social responsibility report preparation work of ARN Group, we particularly hope to listen to your opinions and suggestions. Please fill them out and send them to our email: [yxh4610@aqarn.com](mailto:yxh4610@aqarn.com)

Selective question (please mark "√" in the corresponding position)

option	better	good	normal	bad	worse
1. Does this report comprehensively and accurately reflect the social responsibility work status of ARN Group?					
2. Does this report respond to and disclose the concerns of stakeholders?					
3. Is the data disclosed in this report clear, accurate, and complete?					
4. What is the readability of this report, including its logical main line, content, text, and layout design?					

Open ended questions

1. What do you think is the most satisfying aspect of this report?

2. What other information do you think you need to know is not reflected in this report?

3. Do you have any suggestions for our future social responsibility work and report release?

If it's convenient, could you please tell us about your information

Name: Institution:

Occupation: Phone:

