

**Ningbo Joyson Electronic Corp.**

Stock Code: 600699.SH

**2022**

**Corporate Social Responsibility  
& Environmental, Social and  
Governance Report**



# About the Report

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This is the second Corporate Social Responsibility & Environmental, Social and Governance Report ("CSR&ESG Report" or "this Report") issued by Ningbo Joyson Electronic Corporate. (hereinafter referred to as "the Company" and its subsidiaries (collectively referred to as the "Joyson Electronics" or "we") to present the management methods, initiatives, and performance of Joyson Electronics in environmental, social and governance aspects in 2022.

The Board of Directors of Joyson Electronics is well aware of its responsibility for the authenticity of the Report. It also assumes full responsibility for Joyson Electronics's environmental and social governance strategy and reporting and has reviewed and approved this Report.

## Reporting Period

This Report is an annual report for the period from 1 January to 31 December 2022 (hereinafter referred to as "the Reporting Period"). To enhance the readability of the Report, some contents or data relate to previous or subsequent years.

## Reporting Scope

Unless otherwise specified, the scope of the text disclosed in this Report is the same as that of the Annual Report 2022 of Joyson Electronics including the Company, Joyson Advanced Energy Institute, Joyson Intelligent Automotive Research Institute, Automotive Electronics Business Unit (BU) and Automotive Safety Business Unit (BU). For ease of expression, "Automotive Electronics Preh" refers to "Automotive Electronics BU Subsidiary Preh" and "Automotive Electronics Joynext" refers to "Automotive Electronics BU Subsidiary Joynext". In this year's report, we have disclosed environmental and social data for all of our manufacturing subsidiaries, in contrast to the previous year's report, in which only data for the Automotive Electronics Preh subsidiary was disclosed.

## Reporting Principles

This Report has been prepared in accordance with the *Rules Governing the Listing of Stocks on the Shanghai Stock Exchange (Revised in January 2022)*, the *No. 1 Self-regulatory Guidelines of the Shanghai Stock Exchange for Listed Companies – Standardised Operation*, core option of *Global Reporting Initiative Standards (2018) (GRI Standards 2018)*, *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises 5.0 (CASS-ESG 5.0) Index* and the *United Nations Sustainable Development Goals (UN SDGs)*. Unless otherwise stated, the currencies involved in the Report are measured in CNY.

## Releasing Format

The Report has been published in both Chinese and English. In case of discrepancies between the Chinese and English versions, the Chinese one shall prevail. Readers and stakeholders may access this Report on the website of Joyson Electronics (<https://www.joyson.cn/>) and the Shanghai Stock Exchange (hereinafter referred to as "SSE") (<http://www.sse.com.cn/>).

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## Message from the Chairman

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Dear friends of Joyson Electronics,

In 2022, we will continue to pursue our vision of “becoming a reliable partner of global excellent automobile manufacturers and accelerating the revolution in driving behaviour in the segmented market, as the innovator and leader of automobile intelligent technology”. At the same time, we will continue to integrate the concept of sustainability into our business development.

**Resilient growth.** Facing various opportunities and challenges in the global automotive industry over the past year, we have continued to implement the business plans we formulated at the beginning of the year, and we have actively taken measures to improve the Company’s performance in the automotive safety sector. We have been pursuing innovation and making breakthroughs in the emerging field of automotive electronics throughout 2022. The Company has also achieved steady growth in scale, made significant improvements in performance and received a record-high number of new orders, laying a solid foundation for future performance.

**Innovation first.** We highly value independent R&D and innovation, and have established a global R&D team of over 4,900 people covering the world’s major automotive production areas. Meanwhile, through the New Energy Research Institute and the Intelligent Automotive Research Institute, we are steadily making investments in cutting-edge technologies in the fields of electrification and intelligence. Moreover, we are committed to building an intelligent manufacturing management system that features “process automation, platform flexibility, informationisation and business intelligence”. For now, Joyson Safety’s plants in Hungary, Ningbo and other locations have achieved fully automated production, while Ningbo plant had been granted the "Pilot Demonstration Project of Intelligent Manufacturing" and the "China Benchmark Intelligent Factory" designations by the Ministry of Industry and Information Technology.

## Message from the Chairman

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**Green development.** Environmental protection and low-carbon operations are core themes in the Company's development. For this reason, we have set up an overall Environmental, Health and Safety (EHS) management policy and management structure at the global level, incorporated climate change and carbon neutrality into our operational objectives, developed various related internal support systems, and implemented an environmental management system. The Company also uses renewable energy, improves process materials, and engages in thermal energy recycle in order to enhance our energy use efficiency and reduce carbon emissions. In addition, we actively encourage supply chain companies to integrate energy conservation and emission reduction into their operations; and we incorporate ESG-related elements, such as environmental protection, occupational health and safety, and responsible supply chain concepts, into all aspects of supplier management. As the global automotive industry transitions from fuel to new energy vehicles, we are also building an industry-academia-research innovation consortium based on the New Energy Research Institute, in partnership with universities and enterprises, to strengthen the R&D and commercialisation of new energy management products for automobiles. In this way, we are helping the global automotive industry to develop in a smarter, safer and more environmentally friendly direction.

**People-oriented.** Employees are Joyson Electronics' most important asset, for our development. We strictly comply with national labour laws and regulations, regulate employment policies, protect the rights and benefits of each employee, and provide free canteens, fitness centres, housing support and other supportive measures to our employees. We are committed to engaging in collaborative development and sharing the fruits of our growth with our employees. To this end, the Company is continuously investing high-quality resources, increasing training, strengthening talent development, and implementing various incentives of the short, medium and long term, with a view to empowering the growth of our employees while fully revitalising the Company's development.

In the future, guided by the principle of high-quality development, we will actively focus on and respond to the demands of various stakeholders, continuously improve the Company's performance in the areas of the environment, the economy and society, and continue to move forward.

Jianfeng Wang

Chairman of Joyson Electronics

2023.4

# About Joyson Electronics

## Overview of Joyson Electronics

Joyson Electronics is one of global leading component suppliers and technical service providers for automotive manufacturers. Headquartered in Ningbo, China. The Company is principally engaged in intelligent cockpit / connected products, intelligent driving products, new energy management products and automotive safety products, and provide one-stop solutions in the key technical fields of smart electric vehicles to global automotive manufacturers.

Over the years, we have been committed to our vision of “We hope to be the reliable partner of global excellent automobile manufacturers and accelerate the revolution in driving behavior in the segmented market as the innovator and leader of automobile intelligent technology”. We seek breakthroughs from a global perspective in our pursuit for “safer, smarter and greener” products and rapid but balanced development with strategical marketing. Relying on industry-leading core technology and independent research and development (R&D) capabilities, advanced innovative design, global R&D and manufacturing system, reliable quality management and consistent high-quality service, we have established long-term working relationships with major global automotive brands.

The Company will seize niche market opportunities presented by the trend of “New Four Transformations”, continue to enhance our competitiveness in R&D and innovation, and strive for safer, smarter and greener transport in the future.

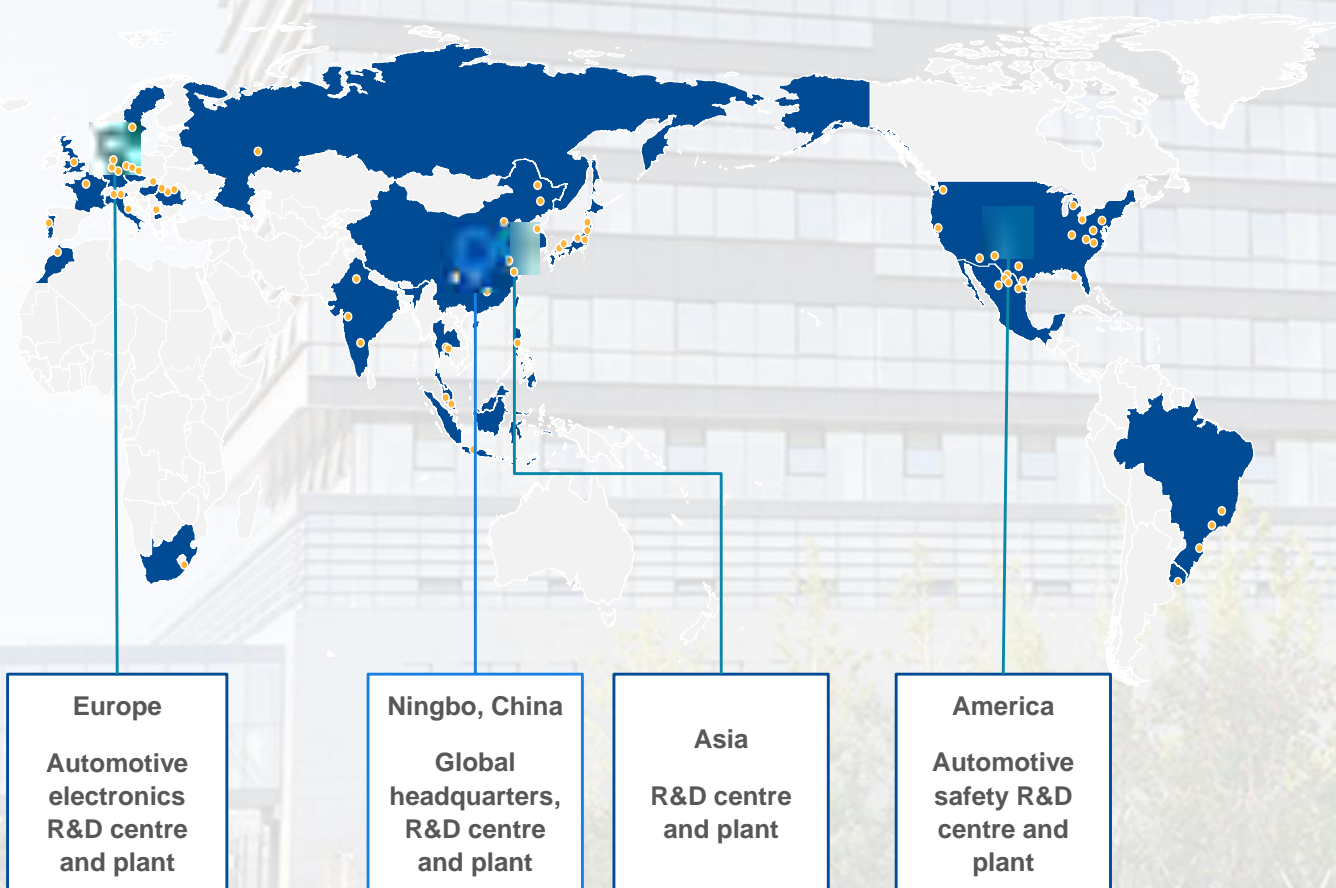
## 2022 Core Business Performance

Revenue	CNY 49.8 billion
Total life cycle value of new orders	Over CNY 76 billion
Including: amount of new orders for new energy vehicles	Over CNY 46 billion
No. of employees worldwide	44,391

# About Joyson Electronics

Currently, the Company is operating under a model of two business units of the Automotive Electronics Business Unit (BU) and the Automotive Safety BU, as well as the Joyson Intelligent Automotive Research Institute and the Joyson Advanced Energy Institute. We have set up several core R&D centres and supporting factories in major automotive producing countries across Asia, Europe and the Americas and have more than 40,000 employees worldwide.

## Global Layout



# About Joyson Electronics

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## Vision

We hope to be the reliable partner of global excellent automobile manufacturers and accelerate the revolution in driving behavior in the segmented market as the innovator and leader of automobile intelligent technology.

## Mission

With China, Germany, Japan and USA as the centers, we are intended to provide automobile parts and services of technical innovation, excellent quality, reasonable price and, value for money for excellent automobile manufacturers.

Encourage global professional technical team to learn about the demands of the customers and keep constant upgrading of customer value via constant innovation ability as well as work enthusiasm and become a preferred partner of the customers.

Excellent performance provides a wide space and platform for the employees to develop. Professional work environment improved constantly, tolerant work atmosphere and study-based development organisation make the Company the best employer for employees.

Together with our global customers, we are building a smarter, safer and greener way of driving, creating returns and profits for our shareholders and all our partners.

## Values

**Integrity:** providing excellent products and services for the customers in compliance with laws and business practices; being honest to all shareholders and employees, while employees honest to the Company.

**Employee encouragement:** encouragement and reward should be given to employees for their innovation, good performance, motivation and study in business, courage to take risks and responsibilities and legal compliance.

**Emphasis on outstanding achievements:** taking responsibility for work results and meeting requirements of the customers; paying attention to work efficiency and comprehensive quality.

**Support for change:** actively facing to the reform, actively innovating, constantly improving working procedures and methods, advocating self-learning for self-improvement and striving for better performance.

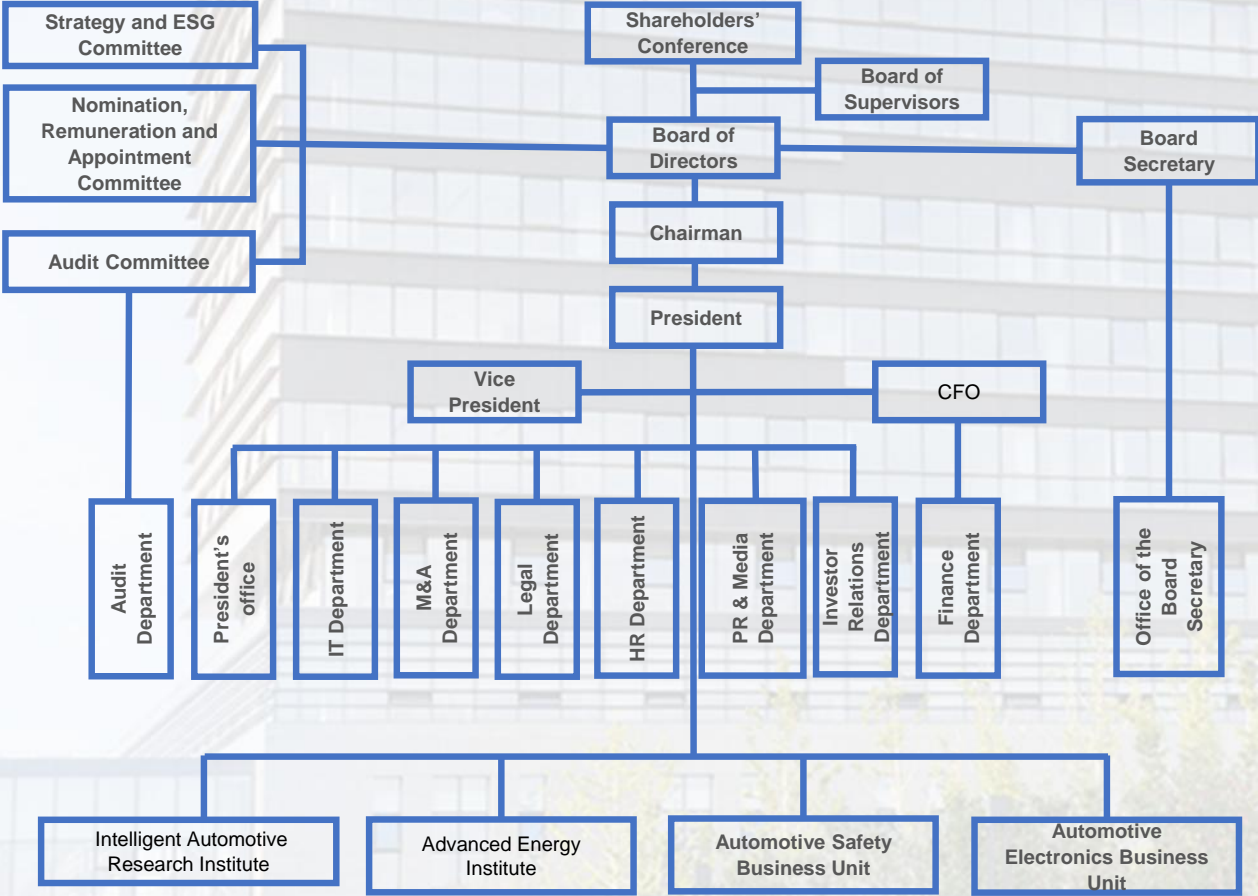
**High performance team:** focusing on team target and the overall benefits, pursuing dedication, supporting each other, sticking to disciplines, emphasising working methods and procedures and trusting in others.

**Diversity and inclusion:** respecting diversified cultural backgrounds and faiths of employees of Joyson Electronics from across the world, advocating tolerant and harmonious work atmosphere and creating an atmosphere fit for work and life of global employees.



# Organisational Structure

## Organisational Chart



# Core Business

The Company operates two business units of the Automotive Electronics BU and the Automotive Safety BU. The Automotive Electronics BU mainly provides intelligent cockpits / connectivity systems, intelligent driving, new energy management, software and services. the Automotive Safety BU mainly provides seat belts, airbags, smart steering wheel, integrated security solutions and other relevant products.

## (1) Automotive Electronics BU

**1. Intelligent cockpits system:** iterative upgrade and volume growth of domain controllers, and interactive multi-modal development of intelligent cockpits

Amid the trend of multi-screen, interconnected and empathetic intelligent cockpits, the Company is accelerating the iteration of the next generation domain controllers of intelligent cockpits and intelligent human-computer interaction system to create an in-between “HAI platform” (Human AI Interaction) for future human-computer interaction. The latest third generation domain controllers of intelligent cockpits support Qualcomm and other mainstream cockpit chips which achieve customised development in a multi-system environment, and a multi-modal and personalised human-computer interaction mode, including the integrated central control large touch screen with suspension vibration feedback, magnetic touch/multi-function knob, customised touch and sound, etc. It supports multi-screen display, intelligent voice interaction, travel services and other functions. Through software, ecological applications and over-the-air OTA upgrades, the cockpit becomes more active, intelligent and humanlike, i.e., better looking and more user-friendly, more fun, bringing empathy and multi-modal interactive experience to end users, and is currently being developed for mass production and to be used on large platforms.

**3. New energy management system:** focus on 800V high-voltage low-loss fast charging for continuous innovation and breakthrough

Facing rapidly growing new energy market and the mismatch between voltage levels of charging piles and vehicles, the Company relies on the R&D advantages of the Joyson Advanced Energy Institute in China and leverages rich experience from overseas markets to develop technologies in the field of 800V high-voltage low-loss fast charging platforms. We have been making breakthroughs and promoting the R&D of the next generation of integrated high-voltage platform energy management technology that is more suitable for the Chinese market, including 800V power conversion technology, 800V high integration technology of various power electronics, 800V safety control technology, integrated domain controllers of power electronics and battery management systems to exert central control over the whole energy flow from charging, transformation, storage to discharge. We aim to boost the development of 800V EV and accelerate the increase in Chinese market penetration.

**2. Intelligent connectivity system:** maintain the first mover advantages while diversifying products and expanding business

In terms of product and technological innovation, the Company continues to promote the R&D of V2X future-proof technology and cost optimisation and improves its cost performance while upgrading products. The latest generation of intelligent connectivity products have already met the latest 3GPP-R16 standard on integrated multi-scenario C-V2X vehicle-road collaboration, sub-meter high-precision positioning, global navigation satellite system (GNSS), smart bluetooth key, OTA upgrade, big data service, security service and other functions, and have complied with relevant European regulations and industry standards, empowering Chinese vehicle manufacturers to go global.

## Core Business

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**4. Intelligent driving system:** rapidly promoting future-proof R&D, focusing on the market, and deploying domain controllers

The Company continues to promote the integration of artificial intelligence (AI) technology with the automotive industry and embrace the latest trend of intelligent driving. We focus on the autonomous driving Tier 1 field to carry out R&D of autonomous driving technologies from L0 to L4. We are also making in-depth deployment in the field of intelligent driving around the new electrical and electronic architecture (EEA3.0) of intelligent electric vehicles, and relying on the Joyson Intelligent Automotive Research Institute's technical portfolio and forward-looking R&D advantages in AI to make cutting-edge technological innovations in the field of autonomous driving, and to accelerate the development of a new generation of high-computing domain controllers of intelligent driving and other products. Currently, more than 50 patents have been approved and are under review in this field, covering the domain controllers' structure of autonomous driving, path planning, vehicle control, data storage, etc. The product design and R&D related to Joyson domain controllers of intelligent driving have been audited and certified by TUV NORD, one of the world's authoritative organisations, and confirmed to be in compliance with the IATF 16949 Quality Management System standards for the automotive industry. It demonstrates that our design and development and batch manufacturing standard in this field have met the industry standard after more than one year of deployment and development. Meanwhile, the Company is carrying out works related to ASPICE CL2 evaluation certification and ISO26262 process system certification to maintain the first-class standard of our product design and development in the industry.

Regarding specific products and businesses, the Company mainly engages in activities to commercialise domain controllers of intelligent driving and other products. We have formed working relationship with Nvidia, Qualcomm, Horizon, Black Sesame and other chip manufacturers. We have also been working with a number of domestic and foreign vehicle manufacturers to engage in the R&D of intelligent driving domain controllers based on different chip platforms, cockpit and domain controller integration and central computing units. Some projects have successfully created the prototype that passed the proof of concept (POC) test, which will be a solid support for subsequent acquisition of formal orders.

# Core Business

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## (2) Automotive Safety BU

The Company has been promoting the R&D and innovation of the next generation of active and passive safety technologies facing the challenge brought by electrification, intelligence and other technological innovations in the industry and the continuous iteration of road safety regulations in various countries. We have developed/put integrated safety solutions such as driver monitoring system (DMS), motorised seat belt (MSB), steering hand grip sensor (SHS); new airbag systems such as headliner passenger airbag, far-side airbag; as well as innovative safety products such as hybrid gas generator (HPI), pyrotechnic battery disconnect (PBD) into mass production, to provide all-round driving protection for both drivers and occupants and increase unit price and value per vehicle.

To meet the increasing demand of the Chinese market and even the Asian market, Joyson Safety Systems Hefei Base Phase 1, with a planned investment of about CNY 2 billion, started construction during the Reporting Period and is scheduled to start production in 2023. The smart manufacturing base includes a R&D centre, testing and verification laboratories, manufacturing centre of passenger car steering wheels and airbags, and is expected to achieve a production capacity of 4 million passenger car steering wheel per year and 10 million airbag per year after completion. Joyson Safety Systems has also completed the Huzhou Phase 3 expansion project and started manufacturing. It marks a milestone in the construction of key development capabilities, including the development of igniter and gas generator for airbags and also a world-class gas generator laboratory in China. Currently, the laboratory is the only corporate laboratory in China that can complete all relevant test experiments of gas generators. The deep integration of R&D and manufacturing resources will help Huzhou build Joyson Safety Systems' largest intelligent manufacturing base of gas generators.

# Milestone

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## Start-up years 2004 - 2008

- The founding of Joyson Electronics dates back to 2004. Right from the beginning, the Company adopted the concept of synchronous design with the automotive OEMs, with products ranging from the engine air intake systems, air vents and so on. In 2006, the Company began to supply to Volkswagen(VW), General Motors(GM) and Ford.

## Tier 1 Supplier 2008 -2010

- In 2008, Joyson Electronics was promoted to be the A-class supplier of VW, and became the global supplier of GM at the same time. Through continuous innovation and development, the Company has emerged in the domestic automotive components market and gradually established a leading position in the market segment. In 2010, Joyson Electronics and Preh GmbH established a joint firm in Ningbo China, focusing more on automotive electronics business.

## Listed and globalisation 2010 - 2016

- In 2011, Joyson Electronics was listed on the Shanghai Stock Exchange (SSE) and became an international automotive electronics company, which grown from China with independent intellectual property rights. The perfect combination of industry and capital boosted Joyson Electronics to develop faster in the area of automotive intelligence and E-Mobility.
- In 2011, Joyson Electronics successfully acquired Preh GmbH, and was selected as one of the Top 10 mergers and acquisitions in China of the year. Since then, Joyson Electronics has established factories or R&D centers in Ningbo, Shanghai, Changchun, Chengdu and other places in China, and expanded its overseas layout to Germany, the United States, Portugal, Romania and Mexico and other countries. And this has lay the foundation for the global development of Joyson Electronics.

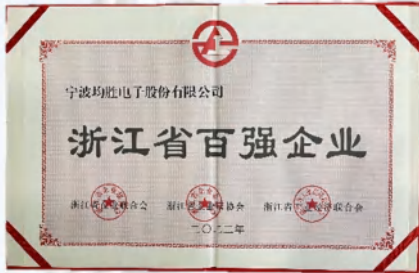
## Acquisitions and Integration 2016 - 2020

- In 2016, Joyson Electronics acquired Key Safety Systems and TechniSat Automotive, and established an intelligent car connected company. In 2018, Joyson Electronics acquired high-quality assets from Takata, and integrated it with KSS to become a new Joyson Safety Systems, accounting for about 30% of the global automotive passive safety market. In 2019, Joyson Electronics established the Automotive Connectivity BU. After global integration and optimisation, the layout of Joyson Electronics in the field of automotive safety and intelligent driving has been further improved.

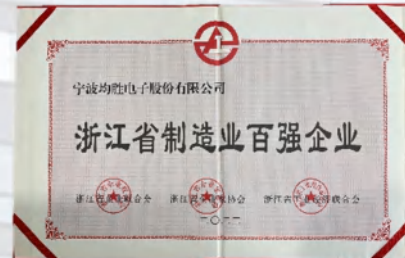
## New Journey 2020 - Present

- In 2021, Joyson Electronics set up the Joyson Intelligent Automotive Research Institute and Joyson Advanced Energy Institute to empower development with R&D in forward-looking fields. In the same year, the Automotive Safety BU introduced strategic investors and obtained more comprehensive support in terms of policy, industry, resources and funds. At present, Joyson Electronics has formed a good situation in business of intelligent cockpit / connected systems, intelligent driving, new energy management system and automotive safety systems, and set foot on a new journey of development.

# 2022 Award Highlights



Top 100 Enterprise Award in Zhejiang Province



Top 100 Manufacturing Enterprise Award in Zhejiang Province



2022 Top 100 Enterprise of Electronic Information Competitiveness



Leading Enterprise of High Quality Development in Zhejiang Province



2022 Top 100 Conglomerate Award in Ningbo



2022 Top 100 Manufacturing Enterprise Award in Ningbo

# 01

## Improving Governance

1.1 Compliance Governance

1.2 ESG Governance

# 1. Improving Governance

A robust system of corporate governance is an indispensable component at the top for achieving sustainability and maintaining the Company's long-term and everlasting prosperity. Joyson Electronic has been actively responding to the United Nations Sustainable Development Goals (UN SDGs) 5, 9, 10, 16 and 17 to improve corporate governance and promote ESG-empowered corporate sustainability.



Long-term targets	Practical measures	2022 achievements
Continuous increase of leadership diversity	Increase the proportion of female directors	22% of members of the Board of Directors (the "Board") were female directors
Integrity and compliance with business ethics	<p>Continuous enhancement of systems and tools</p> <p>Strengthening training coverage</p>	<p>Business ethics trainings covered nearly 100% of employees, and training hours per person are more than 60 minutes</p> <p>No major irregular incidents related to fraud, unfair competition, monopoly, information security leakage, etc.</p>
Continuous increase of stakeholders' satisfaction with the Company	Close cooperation with stakeholders	Stakeholders gave an overall satisfaction rating of 4.5 out of 5 on Joyson Electronics' sustainable development



# 1.1 Compliance Governance

## 1.1.1 Governance Mechanisms

We strictly comply with the *requirements of Company Law of the People's Republic of China, Securities Law of the People's Republic of China, Guidelines on Governance of Listed Companies* and other relevant laws and regulations, emphasise the concept of responsibility, and carry out our global work in a responsible manner.

After years of exploration and practice, we have established a decision-making and operation management system with the General Meeting of Shareholders, the Board of Directors and other special committees, the Supervisory Committee and the Operating Management of headquarters in conjunction with the Division as the main structure, forming a corporate governance structure with clear division of power and responsibility, each performing their own function, effective checks and balances, scientific decision-making and coordinated operation.

During the Reporting Period, there were 9 members on Joyson Electronics' Board of Directors (including 3 independent directors), among which 2 were female directors (22.2%) and 7 were male directors. There were 3 members of supervisors (including 1 employee representative supervisor), among which 1 was female supervisor (33.3%) and 2 were male supervisors. There were 6 executives, among which 1 was female executive (16.7%) and 5 were male executives. We held a total of 34 important meetings in the year, including 4 shareholders' meetings, 12 Board meetings, 7 supervisory meetings, 11 meetings of committees under the Board (6 meetings of the Audit Committee, 3 meetings of the Strategy and ESG Committee and 2 meetings of the Nomination, Remuneration and Appointment Committee). We have developed the new "External Guarantee Management System for Ningbo Joyson Electronic Corporation" and revised 13 management systems including the "Management System for Shares Held by Joyson Electronics Directors, Supervisors, and Executives and Their Changes", the "Management System for Joyson Electronics' Information Disclosure", the "Working Rules for the Strategy and ESG Committee under Joyson Electronics' Board of Directors", and the "Investor Relations Management System for Ningbo Joyson Electronic Corporation".

## 1.1 Compliance Governance

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We are strengthening our internal control system for a steady enhancement of the risk control capability while ensuring compliant operation. To improve the internal control system and process of the listed company and BUs, we sort out relevant regulations and guidelines, and with reference to the *Guidelines of Shanghai Stock Exchange for the Internal Control of Listed Companies*, the *Basic Standard for Enterprise Internal Control* issued by the Ministry of Finance and other 4 authorities, and the *Ancillary Guidelines for Enterprises on Internal Control*, we update “Joyson Electronics’ C-SOX Guideline” every year based on regulatory focuses, audit findings and management concerns. The Guideline lists out key control points and requires business units to ensure the design and operating effectiveness of these key control points in the process.

In addition, business units are also required to establish their own risk management system, conduct regular and comprehensive risk management evaluation and report the evaluation results to their respective boards of directors and supervisors in line with the actual situation of their business and operation. The Internal Audit (IA) departments of the BUs and the listed company adopt a coordinated approach of control. In addition to regular communication, the listed company’s IA department gathers and summarises audit reporting materials submitted by the BUs. The IA department also reviews the quality of BU management’s self-evaluation results during the C-SOX interim and final reviews each year to ensure the operating effectiveness of the overall internal control system. In 2022, the Internal Audit departments of the Company conducted 6 special audits including the payment process audit and follow-up audit, the technology and operation audit, and the procurement audit.

Meanwhile, to strengthen internal control governance, reduce risks and ensure healthy development, we perform departure audit of executive management of the listed company head office and the BUs, and other key personnel designated by the Joint Conference on Ethics Compliance and Information Security (the “Joint Conference”) to evaluate the leaving personnel’s performance of their responsibilities and duties for stronger supervision over key personnel.

# 1.1 Compliance Governance

## 1.1.2 Information Disclosure

To accept the supervision from the public and investors, and strength the stakeholder's understanding and recognition of Joyson Electronics, so that they can obtain timely and accurate information. We use comprehensive methods/tools of traditional media and new media platform such as official website, official LinkedIn account and official Wechat account to increase the channels of information disclosure and communication, enrich the forms of information dissemination and enhance the communication effect. We fully communicate with investors by interaction on the Electronic Platform of the SSE, emails, answering their calls, receiving their visits, holding investor briefings, and attending strategy meeting, etc.

We strictly follow *Administrative Measures on Information Disclosure by Listed Companies*, *Management System for the Registration of Informants of Insider Information of Listed Companies*, and other systems. We insist on meeting the high-standard disclosure requirements, disclose material matters on platforms such as the SSE and Shanghai Securities News, and use new media platforms to release the latest information. We will continue to enhance the initiative and transparency of information disclosure with truthful, accurate, complete and punctual compliance disclosure, and strengthen the disclosure awareness and responsibility of relevant personnel to avoid information disclosure violations.

In 2022, we reviewed and passed 57 proposals, prepared and disclosed a total of 4 periodic reports, issued 70 interim announcements, and held 3 investor briefings.

## 1.1.3 Business Ethics

We adhere to the principles of integrity and business ethics and are responsible for our business behaviours. We strive to establish an industry-leading compliance management system and insist on creating an integrity-based corporate culture in every aspect of our daily operation.

To strengthen the management of ethics compliance and information security, the Joint Conference under the management directly reporting to the President was established in 2019. The Joint Conference is comprised of the Vice President, heads of the Legal Department, Human Resources Department and IT Department, it also invites the chairman and members of the listed company's Board of Supervisors and the head of the Internal Audit Department under the Audit Committee of the Board of Directors to be its members. The Company's Vice President and chairman of the listed company's Board of Supervisors are joint chairmen of the Joint Conference. The secretariat of the joint meeting is located in the Legal Department, and the senior legal advisor is also the secretary of the joint meeting.



Joint Conference in the listed company's organisational structure

All Joyson Electronics BUs have their respective for ethics compliance and information security responsible for liaising with Joint Conference on behalf of their respective BUs.

As a working arm of Joyson Electronics global management head office, the Joint Conference aims to establish a robust, sound and globally consistent ethics compliance and information security policies and performance system to effectively prevent, mitigate or eliminate risks and their adverse consequences.

# 1.1 Compliance Governance

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## **Key responsibilities of the Joint Conference:**

- Execute resolutions of the Board and President of the Company on ethics compliance and information security;
- Formulate policies and documents on ethics compliance and information security for the listed company;
- Formulate plans for investigating material breach of ethics compliance and information security, perform the investigation and provide recommendations on the breach treatment;
- Oversee the BUs' development of annual ethics compliance and information security plans and their implementation; and
- Support and guide the BUs' development and implementation of policies related to ethics compliance and information security.

Currently, the Joint Conference has the following main focuses: whether an employee works part-time for our competitors, accepts commercial bribes, acquires shares of suppliers, obtains benefits through related transactions, undermines electronic information security, steals, and discloses trade secrets, or whether the employee fulfils his or her duty with due care and diligence.

To implement and regulate the relevant tasks, the Joint Conference has issued policies and implementation guidelines including the "Guidelines on the Protection of Trade Secrets", and "Policy on Conflict of Interest and Declaration of Specific Interests". It has also released the "Joyson Code of Business Conduct" to define the baseline of being legally and ethically compliant. We hope that our employees fully understand Joyson Electronics' requirements on business ethics to act in accordance with the Code of Conduct. To this end, we disseminate the information to all our employees through comprehensive trainings, annual conflict of interest declaration, disclosure requirements, etc.

# 1.1 Compliance Governance

Employee trainings	<ul style="list-style-type: none"> <li>➤ Information related to the code of ethics and business conduct, including ethical compliance, anti-corruption, protection of trade secrets, and integrity operation and cooperation with suppliers is included in the induction trainings for new joiners, annual trainings, annual personal declaration and special training plan to enhance all Joyson employees' understanding and knowledge;</li> <li>➤ Combination of online and offline trainings to achieve full staff coverage and improve training efficiency;</li> <li>➤ In 2022, integrity trainings covered nearly 100% of employees, more than 60 minutes were spent on relevant training per person.</li> </ul>
Annual conflict of interest declaration	<ul style="list-style-type: none"> <li>➤ Arrange for employees to declare conflict of interest every year, in which message from the management and detailed explanation of conflicts of interest are included. Through the annual conflict of interest declaration, employees are reminded the requirements on conflict of interest declaration.</li> <li>➤ Based on the declaration results, the Compliance Committee designate business units/the Company's HR Department, compliance officer and Committee Investigation Team to verify the results subject to the level of issues declared. The verification results will be discussed with persons in charge of the business unit and the corresponding compliance officer to develop a detailed action plan.</li> </ul>
Transparency and openness	<ul style="list-style-type: none"> <li>➤ All requirements on business ethics are accessible to our employees on the Intranet, and major terms are publicly available on the corporate website. Revisions to policies and documents are simultaneously updated to ensure information transparency, openness, timeliness and validity;</li> <li>➤ We provide support concerning laws, regulations and corporate policies to employees if they have any ethics and compliance-related issues to help them understand our Code of Conduct and relevant requirements.</li> </ul>

In accordance with the "HR Guidance on Compliance, Ethics & Policy of Conflicts of Interest", the HR Department implements the policies and opinions of the Joint Conference and uses the "HR Self-assessment Form of Compliance, Ethics & Conflicts of Interest" to ensure ethical compliance in employee recruitment, onboarding, dismissal, and training.

# 1.1 Compliance Governance

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## Anti-fraud

Joyson Electronics prohibits all forms of bribery, all the employees and any third parties acting on behalf of Joyson Electronics must sign off and comply with all applicable anti-bribery laws and regulations. Regardless of local practice or custom, no bribes, kickbacks, facilitation payments or improper gifts shall be supplied, offered to, or accepted from government officials, any business personnel, or entities. To cultivate an atmosphere of integrity and diligence, and to prevent related events, we have established a special “Anti-fraud Policy” and published it on the official website of Joyson Electronics.

Anti-fraud management is carried through the entire process of our business operation. For example, the Automotive Safety BU has improved the compliance management system and the “Global Anti-Bribery and Corruption Policy”, including performing annual risk assessment and anti-fraud inspection; formulating global compliance training policy and training matrix, providing trainings; identifying abnormal behaviours in the financial reimbursement process; setting up exit interview process and communication hotline; and carrying out targeted audits in respect of risk assessment and annual performance.

To suppliers, we have taken various forms of anti-corruption and anti-fraud publicity training and education. Every year, we send letters to all suppliers and/or partners to remind and require suppliers to abide by the Company’s anti-fraud management system and code of conduct. Suppliers are required to sign the “Integrity Operation and Self-discipline Agreement” and the “Integrity Commitment Letter”. Suppliers are also recommended and required to conduct self-assessment and in-house trainings to establish and improve the relevant system.

In 2022, there were no major violations involving corruption in Joyson Electronics.

# 1.1 Compliance Governance

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## Anti-monopoly and Anti-unfair Competition

Joyson Electronics is highly concerned about the anti-monopoly and anti-unfair competition risks and complies with the *Anti-monopoly Law*, the *Law Against Unfair Competition* and other laws. We assign the Legal Department and the Compliance Department as the initiators to set up a special task force responsible for drafting the “Global Antitrust and Fair Competition Policy” and other internal policies to regulate the process, provide thematic training, follow up regulatory developments and handle anti-monopoly and anti-unfair competition cases and litigations.

As there is the risk of horizontal competition between the BUs, we adopt strict isolation measures relating to matters such as joint procurement, use of computer operating system and technical cooperation, and assign personnel in charge of the management on the basis of strict compliance with a robust anti-monopoly system. The Legal Department works with external law firms to provide warnings, analysis, evaluation, declaration and treatment related to risks that may exist in transactions

There was neither behaviour of unfair competition nor incident in breach of anti-monopoly laws at Joyson Electronics during 2022.

## Information Security

Joyson Electronics is committed to effective protection of trade secret and clients' information and strives to ensure information security in business activities. We strictly abide by the *Cybersecurity Law of the People's Republic of China*, the *Data Security Law of the People's Republic of China* and other regulations of the operation locations. We have formulated 16 rules and regulations such as the “Data Classification Policy”, the “Data Retention Policy”, the “Outsourcing Policy” and the “Physical Security Policy”, which encompass data management, network security management, personnel management, physical security protection of information system, outsourcing IT service provider management, visitor management, security incident response and other contents related

to information security in daily operation.

In addition to setting up a Joint Conference to coordinate related matters and hold publicising and implementation conference for all employees, all employees are required to sign a confidentiality agreement to ensure compliance with policies, rules, practices and guidelines regarding business operations, handling of proprietary information, and property. Business units have formulated policies and procedures in this regard, for example, Automotive Electronics Joynext has been implementing the “Customer Property Management Control Procedure” to control and manage all properties (including intellectual property) provided by clients. For the standard samples and drawings provided by clients, they should be permanently marked to prevent any inappropriate use. At same time, we will maintain these items and conduct fixed item inspection, keep records according to clients' requirement, and handle them by relevant departments in the process of returning and handling in accordance with the client' requirement. We also agree with our clients on the definition, use, return, destruction, attribution or other requirements of confidentiality information by means of a confidentiality agreement. We will make additional provisions for situations involving the protection of trade secrets in the business cooperation.

In 2022 , there was no major violation information security and no confirmed complaint related to infringement of client privacy in Joyson Electronics

# 1.1 Compliance Governance

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## Complaints and Reports

The Company encourages employees to actively communicate with their superiors and supervisors, and they are encouraged to discuss and circulate different and innovative ideas they come up with during the work. If their ideas are not taken seriously, employees are allowed to go over heads to superiors and the general manager. We provide comprehensive and diverse feedback, grievance and reporting channels and encourage our employees, suppliers and stakeholders to report potential violations or make recommendations on our compliance management in name or anonymously. For the listed company, the Ethics, Compliance and Information Security Committee has a global whistleblower hotline and email address/mailbox, and each Business Unit has its own reporting channels for respective employees.

We prohibit retaliation against anyone who raises concerns about business practices or cooperates in a corporate investigation. No director, officer or employee in good standing who reports a concern shall be subject to harassment, retaliation or adverse employment consequences. If a potential violation is reported, the compliance officers of the Internal Audit departments or each Business Unit will be responsible for further investigation. For confirmed incidents, in addition to taking appropriate measures against the violator, communicating the results internally and to external third parties as necessary, written reports assessing and improving internal controls are required to minimize the occurrence of similar violations.



# 1.1 Compliance Governance

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In 2022, a total of 5 reports were received through the listed company's reporting mailbox, with a 100% response rate.

Complaint and report channels:

**Listed Company**

Tel: +86- 0574-87515507

Email: IA@joyson.cn

**Automotive Electronics Preh**

Website: <https://preh.integrityline.org/>

**Automotive Electronics Joynext**

Email: [compliance@joynext.com](mailto:compliance@joynext.com)

**Joyson Safety Systems**

Website: <https://jss-speakup.com>

## 1.1.4 Transparent Tax Payment According to the Law

Paying taxes in accordance with the law and in good faith is the best embodiment of corporate credit. We strictly abide by applicable tax laws and regulations in the places where we operate, including the *Implementation Regulations for the Corporate Income Tax Law of the People's Republic of China* and *Announcement on Policies for Deepening the VAT Reform Announcement*. We work with the government in tax policy implementation and pay taxes to the local government in a legal manner to make our contributions to the economic development. In addition, we also assess our tax risk through regular and ad hoc evaluation, disclose tax information in accordance with laws, and strictly forbid tax evasion.

In 2022, Joyson Electronics had no breach of tax laws and regulations.

## 1.2 ESG Governance

### 1.2.1 ESG Governance Structure

We are constantly strengthening our ESG governance capabilities and have built a three-tier governance structure, with the Board of Directors, the Strategy and ESG Committee and the ESG Working Group as the main bodies. We are gradually strengthening the development and implementation of ESG work through continuous improvement of governance, clear and unambiguous delineation of authority and responsibility, identification of the global sustainability trend, risks and opportunities to keep enhancing the ESG implementation and development. The Strategy and ESG Committee

consists of 7 directors who are nominated and elected by the Board, and the Committee is chaired by the Company's Chairman and has an investment review team and an ESG Working Group.

The Board is the highest decision-making body for ESG work, and its Strategy and ESG Committee is responsible for studying and making recommendations on the Company's long-term development strategy, major investment strategies, sustainable development and ESG-related policies. ESG-related proposals are submitted to the Board for approval and decision while the ESG Working Group is the executive body.

#### ESG Governance Structure of Joyson Electronics

<b>The Board of Directors</b>	<ul style="list-style-type: none"> <li>➤ <b>Responsible for overall ESG governance</b></li> <li>➤ <b>Responsible for overall decision making on ESG work</b></li> </ul>
<b>The Strategy and ESG Committee</b>	<ul style="list-style-type: none"> <li>➤ <b>Proposing ESG-related activities</b></li> <li>➤ <b>Proposing ESG-related policies and actions to the Board</b></li> </ul>
<b>The ESG Working Group</b>	<ul style="list-style-type: none"> <li>➤ <b>Developing ESG-related policies and plans</b></li> <li>➤ <b>Managing daily ESG-related risks and issues</b></li> <li>➤ <b>Implementing the ESG work plan</b></li> <li>➤ <b>Collecting and reporting ESG information</b></li> <li>➤ <b>Other ESG matters</b></li> </ul>

Going forward, the Board will strengthen its ESG risk management efforts and assume responsibility for internal monitoring of ESG risks to protect our growth and the long-term interests of our stakeholders.

### 1.2.2 Stakeholder Communication

We regard stakeholder communication as the cornerstone of sustainable development work and establish a multi-channel communication and feedback mechanism for this purpose. We collect and identify the demands of various stakeholders and deepen the participation of stakeholders in ESG management, so as to improve the sustainable development performance of Joyson Electronics and effectively respond to the expectations of all parties.

## 1.2 ESG Governance

Stakeholders	Expectations and needs	Communication and feedback
<b>Government</b>	<ul style="list-style-type: none"> <li>➤ Compliance governance and risk control</li> <li>➤ ESG governance</li> <li>➤ Business ethics and anti-corruption</li> <li>➤ Taxation and value creation</li> <li>➤ Employment development</li> <li>➤ Protection of intellectual property rights and scientific research and technological innovation</li> <li>➤ Tackling climate change and reducing greenhouse gas emissions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Daily communication and reporting</li> <li>▪ Acceptance of supervision and assessment</li> <li>▪ Strengthen compliance operation management</li> <li>▪ Proactive taxation</li> <li>▪ Multi-partnership to promote local employment</li> <li>▪ Insisting on innovation and increasing investment in R&amp;D</li> <li>▪ Deepening energy conservation and emission reduction projects, reducing energy and resource consumption and emissions generation, etc.</li> </ul>
<b>Investors</b>	<ul style="list-style-type: none"> <li>➤ Compliance governance and risk control</li> <li>➤ ESG governance</li> <li>➤ Business ethics and anti-corruption</li> <li>➤ Production &amp; operation and industrial layout</li> <li>➤ Protection of intellectual property rights and scientific research and technological innovation</li> <li>➤ Tackling climate change and reducing greenhouse gas emissions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Regular investor interviews, meetings, roadshows and meetings with shareholders and investors</li> <li>▪ Strengthen compliance operation management to create shareholder value</li> <li>▪ True, accurate and complete disclosure of information</li> <li>▪ Equal treatment of small and medium shareholders</li> <li>▪ Insisting on innovation and increasing investment in R&amp;D</li> <li>▪ Deepening energy conservation and emission reduction projects, reducing energy and resource consumption and emissions generation, etc.</li> </ul>
<b>Customers</b>	<ul style="list-style-type: none"> <li>➤ ESG governance</li> <li>➤ Business ethics and anti-corruption</li> <li>➤ Product and service quality improvement</li> <li>➤ Customer satisfaction improvement</li> <li>➤ Protection of intellectual property rights and scientific research and technological innovation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Daily service communication</li> <li>▪ Strengthen compliance operation management</li> <li>▪ Strengthen product quality management</li> <li>▪ Conducting customer satisfaction surveys</li> <li>▪ Insisting on innovation and increasing investment in R&amp;D</li> </ul>
<b>Staff</b>	<ul style="list-style-type: none"> <li>➤ Compensation, benefit and incentives</li> <li>➤ Employee training and development</li> <li>➤ Humanistic care</li> <li>➤ Employee relations and work experience</li> <li>➤ Health and safety at work</li> </ul>	<ul style="list-style-type: none"> <li>▪ Compliance with laws, regulation and international employment practices</li> <li>▪ Providing competitive compensation and benefits</li> <li>▪ Providing various forms of training</li> <li>▪ Building a smooth career development channel</li> <li>▪ Promoting work-life balance</li> <li>▪ Employee care activities, Joyson Cares Fund</li> <li>▪ Acceptance employee complaints and feedback, etc.</li> </ul>

(see next page)

## 1.2 ESG Governance

Stakeholders	Expectations and needs	Communication and feedback
<b>Partners</b>	<ul style="list-style-type: none"> <li>➤ Business ethics and anti-corruption</li> <li>➤ ESG governance</li> <li>➤ Supply chain management and transparent sourcing</li> <li>➤ Win-win cooperation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improve procurement management</li> <li>▪ Sunshine Procurement</li> <li>▪ Special exchange activities for suppliers</li> <li>▪ Supplier screening and evaluation</li> <li>▪ Developing innovative cooperation models, etc.</li> </ul>
<b>Industry</b>	<ul style="list-style-type: none"> <li>➤ Fair competition</li> <li>➤ Promoting the progress of the industry and the development of the industry chain</li> <li>➤ Protection of intellectual property rights and scientific research and technological innovation</li> <li>➤ Business ethics and anti-corruption</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improving Compliance Governance and rejecting vicious competition</li> <li>▪ Strengthening strategic cooperation</li> <li>▪ Carrying out exchange of experience</li> <li>▪ Insisting on technological innovation, etc.</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>➤ Reducing the impact on the environment and natural resources</li> <li>➤ Tackling climate change and reducing greenhouse gas emissions</li> <li>➤ Improving operational eco-efficiency</li> </ul>	<ul style="list-style-type: none"> <li>▪ Practicing green operations</li> <li>▪ Deepening energy conservation and emission reduction projects to reduce energy resource consumption and emissions generation</li> <li>▪ Exploring new energy fields, developing low-carbon products, etc.</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>➤ Community communication and building</li> <li>➤ Career development</li> <li>➤ Tackling climate change and reducing greenhouse gas emissions</li> <li>➤ Pollutant emission management</li> <li>➤ Resource recycling and utilisation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Actively participating in community welfare</li> <li>▪ Multi-party cooperation to promote local employment</li> <li>▪ Deepening energy conservation and emission reduction projects to reduce energy resource consumption and emissions generation</li> <li>▪ Combating the epidemic</li> <li>▪ Conducting Joyson Open Day activities, etc.</li> </ul>

In 2022, we continued to carry out diversified stakeholder communication activities under the established mechanism of stakeholder participation to improve communication with stakeholders through activities such as Joyson Open Day and Joyson Online Tour.

## 1.2 ESG Governance

### 1.2.3 Materiality Assessment for ESG Topics

We attach great importance to the identification and management of ESG topics, based on the actual business operation and development plan, combined with the feedback from various stakeholders and external experts' opinions. In addition, we widely refer to the leading practices of the industry and industry hotspots, domestic and international sustainability-related standards and capital market ESG rating indicators and construct the CSR&ESG report materiality topics database. We focused on the opinions of internal stakeholders and sorted out the materiality topics matrix of this Report by combining interviews with questionnaire research. The matrix presents the materiality of topics into three levels: Highly important, important, and relevant.

#### 01 Identification and Confirmation of ESG Topics

- Comprehensively sort out the key points of our sustainable development work and feedback from stakeholders, conduct a benchmark analysis of industry hotspots and leading practices, and determine the scope of topics;
- Identify the industry's focuses in the area of sustainability by referring to the capital market ESG rating assessment elements in combination with sustainability disclosure-related guidelines and targets to identify industry priorities in the area of sustainability.

#### 02 Stakeholder Communication and Research

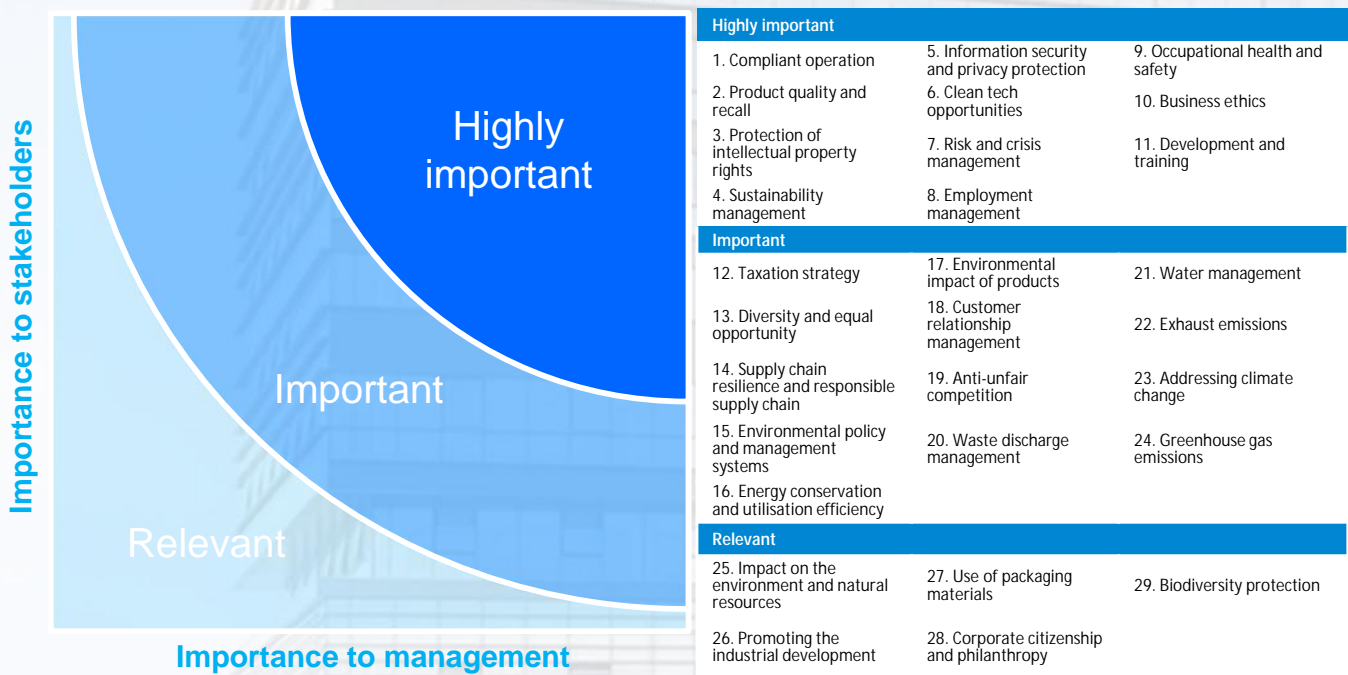
- Conduct stakeholder interviews to gather feedback and suggestions on our sustainability practices and views on future sustainability strategies;
- Prepare an online questionnaire for assessing the materiality of ESG topics, invite internal and external stakeholders to score the materiality of the corresponding ESG topics, and collate and analyse the final research results and the overall rating of stakeholders' satisfaction with Joyson Electronics's sustainable development; the final score was 4.5 (out of 5.0), which is relatively high.

#### 03 Materiality Assessment

- Based on the results of the stakeholder research questionnaire and the Company's development, we evaluate the material topics in two dimensions: "importance to stakeholders" and "importance to management" and rank the substantive ESG topics according to their scores to generate a matrix.

## 1.2 ESG Governance

In 2022, we paid more attention to the following ESG topics: corporate governance, ESG governance, compliant operation, risk and crisis management, policy impact, business ethics, development and training, product quality and recall, information security and privacy protection, protection of intellectual property rights and technology innovation.



Going forward, we will continue to pay attention to the feedback from all parties and update the topic database. We also plan to expand the scale of research based on the original stakeholders who participated in materiality assessment when the conditions are ripe, so as to more comprehensively and fully understand the demands of various parties and support the adjustment of management strategies and the deepening of sustainable development work.

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## Protecting the Planet

2.1 Addressing to Climate Change

2.2 Energy Conservation,  
Emissions Reduction and Clean  
Production

2.3 Noise Management and  
Biodiversity Protection

The background of the page is a photograph of the Joyson Safety Systems Global Headquarters. A large, light-colored sign in the foreground features the company logo, which consists of three curved lines forming a stylized 'J'. To the right of the logo, the text 'JOYSON' is written in large, bold, dark blue letters. Below 'JOYSON', the words 'SAFETY SYSTEMS' are written in a smaller, dark blue font. A horizontal line separates 'SAFETY SYSTEMS' from 'GLOBAL HEADQUARTERS', which is written in a smaller, dark blue font. At the bottom of the sign, the number '25' is visible in large, dark blue digits. The background shows a brick building, trees, and an American flag.

## 2. Protecting the Planet

As the world-leading auto parts manufacturer, Joyson Electronics has always adhered to the concept of green development and low-carbon development. While striving to innovate and forging ahead, Joyson Electronics continues to improve energy and resource utilisation efficiency, reduce pollutant emissions, and constantly broaden new horizons for low-carbon operation in line with production and operation practice. Joyson Electronics has been actively responding to the UN SDGs 6, 7, 11, 13 and 15 to keep promoting green production in alignment with its own business features and the environmental characteristics of principal places of business.



Long-term target	Practical measures	2022 achievements
Gradual reduction of carbon emission	Use renewable energy and update energy-saving equipment	Reduce greenhouse gas (GHG) emissions by 9,868.25 tCO <sub>2</sub> e
Gradual increase of the proportion of renewable energy use	Purchase green power and expand photovoltaic (PV) power generation	PV power generation reached 7,613.39 MWh, which equates to reducing GHG emissions by 5,145.92 tCO <sub>2</sub> e <sup>1</sup>
Continuous increase of the proportion of recycled materials used	Promote energy and materials saving	Automotive Electronics Preh recycled 3,475 tons of production waste, while the Automotive Safety BU improved packaging design to reduce the materials consumption
Continuous increase of environmental protection investments to ensure environmental compliance	Add and improve facilities for pollutants treatment, energy conservation and consumption reduction	We have invested CNY43,284,900 in environmental protection. In 2022, we had no major environmental violations

<sup>1</sup> Most of the Company's photovoltaic power generation is on-grid, not for its self-consumption.



## 2.1 Addressing Climate Change

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Climate change is having a broad and far-reaching impact on us. As a responsible enterprise, we take rapid action to comprehensively analyse the challenges and opportunities that climate change may bring, effectively control the impact of climate change on our own by continuously reducing the carbon footprint generated by our own operations.

### 2.1.1 Governance

In regards of governance, we have established an ESG governance structure to cover the overall governance of our ESG-related work, including the governance of our response to climate change. The Board has delegated authority to the Strategy and ESG Committee to carry out ESG management and has a clear understanding of the Board's oversight responsibilities for ESG matters and the support to be given by management (Please refer to the preceding paragraph on ESG governance for details).

We have made reference to the Task Force on Climate-related Financial Disclosures (TCFD) framework under the G20 Financial Stability Board to identify risks related to Joyson Electronics operation through policy analysis, peer benchmarking and considering the opinions of external experts. We are also conducting current status review, strategy development, risk management, identification and management of metrics and targets in response to the Company's risks and opportunities caused by climate change.

It is important to construct a management system and set targets and metrics. Based on their own operation practice, the BUs have set up their global EHS management policies and structure to oversee and manage global EHS. An EHS structure has also been set up in each subsidiary based on the model of a designated EHS personnel and an EHS coordinator working together for the implementation and rectification of periodic inspection and testing, environmental performance assessment, target review and other follow-ups. Energy consumption metrics are also included in evaluating the production performance to promote continuous improvement.

## 2.1 Addressing Climate Change

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### 2.1.2 Strategy

One of our missions is the creation of a “smarter, safer and greener” way of driving together with our customers worldwide. The trend of transformation from fuel vehicles to new energy vehicles has come to our attention for a long time and has driven our investments in the field. For example, we have established the Joyson Advanced Energy Institute, formed industry-university-research partnership with colleges and universities, set up a Post-Doctoral Research Centre (博士后流动站), and engaged our customers in closer communication to figure out demands and basic conditions, and launch products suitable for current demands and also with future-proof value. In view of the increasing concern of downstream customers on ESG topics, especially the GHG emission, we have been striving to save energy and reduce emissions, launching the carbon accounting, and moving forward to product foot printing as our next step.

We have over 10 years of experience in the field of power battery management systems for new energy vehicles and incessantly making innovations. In order to better respond to the national call for carbon peak and carbon neutrality, seize market opportunities and build a key technology supply system, we established the Joyson Advanced Energy Institute in 2021 in response to the industry chain of new energy vehicles, ongoing advancement and the promotion of battery management system, power electronic products and other new energy management products under a full voltage platform of 12V/48V/400V/800V to help promote new energy vehicles. Going forward, we will continue to respond adequately to policy requirements and customer demands, seize development opportunities with extensive and advanced technologies and cutting-edge research, develop and promote green and low-carbon products and services, lead the future of smart travelling, lay the foundation for the Company to expand and strengthen, and contribute to the society’s mission of energy conservation and emission reduction.

## 2.1 Addressing Climate Change

### 2.1.3 Risk Management

We have integrated climate change with the Company's overall risk management, and identified and assessed physical risks and transition risks taking into account geographical characteristics and business features while seizing opportunities to promote corporate sustainability in following ways:

Risk Category	Risk description	Potential impact	Risk response
Physical risks	Acute	<p>Typhoons and the heavy precipitation, flooding caused</p> <ul style="list-style-type: none"> <li>Loss of inventory, fixed assets, etc.</li> <li>Disruptions to production and logistics, affecting business stability</li> </ul>	<ul style="list-style-type: none"> <li>Establishing emergency plans</li> <li>Inspect drainage facilities</li> <li>Increase safety stock</li> <li>stock emergency supplies</li> </ul>
	Chronic	<p>Higher average temperatures and more frequent extreme heat</p> <ul style="list-style-type: none"> <li>Discomfort for manufacturing workers due to high temperatures, reducing labour productivity</li> <li>High temperatures may lead to lower productivity of physical capital and reduced production capacity</li> </ul>	<ul style="list-style-type: none"> <li>Improve health and safety production policies and facilities</li> <li>Retrofitting production facilities for thermal adaptation</li> </ul>
Transition risks	Policy and legal risks	<p>Higher energy prices or carbon trading</p> <ul style="list-style-type: none"> <li>Regulators introduce carbon trading or expand coverage of paid greenhouse gas emissions</li> <li>Higher energy prices or caps on energy use</li> <li>Raising other regulatory requirements for the environment</li> </ul>	<ul style="list-style-type: none"> <li>Explore the use of renewable energy</li> <li>Purchasing more energy efficient types of equipment when adding new equipment</li> <li>Energy efficient retrofitting of existing facilities</li> </ul>
	Technology risk	<p>Increased use of new energy sources</p> <ul style="list-style-type: none"> <li>As the popularity of new energy products increases, the market share of traditional products compresses and their corresponding production facilities and technological leadership are lost</li> </ul>	<ul style="list-style-type: none"> <li>Increase and accelerate investment in new energy technologies</li> </ul>
	Market risk	<p>Changes in market preferences</p> <ul style="list-style-type: none"> <li>Increased consumer preference for new energy vehicles and increased expectations from OEMs for parts companies to provide low-carbon products</li> </ul>	<ul style="list-style-type: none"> <li>Increase the proportion of green products</li> <li>Intensify collaboration with new energy vehicle companies</li> </ul>
	Reputation risk	<p>Society-wide interest in corporate responses to climate change</p> <ul style="list-style-type: none"> <li>Failure to change with the times could damage the image of responsible business, which in turn could affect corporate relations, attraction of new generations to the workforce, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Report to stakeholders on efforts to reduce greenhouse gas emissions and reduce the carbon footprint of products</li> </ul>

We have been strengthening the sustainability management of natural resources and chemicals management and have been reducing pollutant emissions. To this end, we have formulated the "Environmental Operation and Control Procedures", the "EHS Emergency Preparation and Response Control", the "Management Regulations on Security Accountability" and other internal procedures and regulations. We promote high-quality development and green development by improving risk management and the system for target setting.

## 2.1 Addressing Climate Change

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### 2.1.4 Metrics and Targets

We have identified metrics related to the monitoring of environmental, social and climate-related risks, including volume of electricity, water, packaging materials used; GHG emission; as well as the emission of hazardous and non-hazardous wastes. We compile and disclose the related statistical data each year. We are carrying out GHG emission and product carbon accounting and foot printing in accordance with ISO14064 and other international standards to formally establish and track relevant performance indicators.

In response to the national strategy of “carbon peak and carbon neutrality”, our BUs developed environmental management goals based on actual operation in 2022, including energy consumption per unit output value, power consumption per unit output value, sewage per unit output value, hazardous waste per unit output value, to integrate green, low-carbon, environmentally friendly and sustainability concepts with our daily production and operation. For example, Ningbo plant of Automotive Electronics Preh has formulated the “Sustainability Planning of Ningbo Preh Joyson Automotive Electronics Co., Ltd.” to set out the plan for energy

conservation and emission reduction, establish a sound system of environmental and climate protection, and take a number of initiatives such as utilising waste heat, installing rooftop distributed PV system, and transforming frequency conversion of water circulation pumps to help achieve the goals. In respect of improving energy efficiency and promoting the use of renewable energy, we have also been actively carrying out publicity to suppliers and providing assistance to them in order to promote low-carbon concepts in the supply chain.

We will continue to pay attention to the impact of climate change on our business in active response to policy requirements while further improving strategy development, risk management, and identification and management of metrics and targets, to tackle climate change in pursuit of common sustainability with various sectors of the society.

## 2.2 Energy Conservation, Emissions Reduction and Clean Production

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We strictly abide by the *Law of the People's Republic of China on Environmental Protection*, the *Law of the People's Republic of China on Environmental Impact Assessment*, the *Law of the People's Republic of China on Energy Conservation* and many other local laws and regulations, establish relevant systems such as Laws and Regulations and Conformity Evaluation Procedures, and further track the applicability and compliance of regulations by improving the Compliance Obligations List and other documents. Each business unit and its subordinate enterprises internally formulate various systems such as Environment Operation and Control Procedures to standardise the energy and resources usage, strive to build a resource-saving and environment-friendly enterprise, and realise the coordinated and sustainable development of people, resources and environment. As of the end of the Reporting Period, a total of 52 business locations under Joyson Electronics BUs have obtained ISO14001 certification, covering the majority of our global operations. In 2022, Ningbo Joyson Safety Systems Co., Ltd and Ningbo Preh Joyson Automotive Electronics Co., Ltd. were named Ningbo Green Factory of the Year 2022.

### 2.2.1 Indicators and targets of Energy Usage

Over the years, we have adhered to the development idea of saving energy and materials, and gradually strengthened the scientific management of energy. The business unit establishes a lean energy management system according to its actual operation, that is, establish a lean energy organisation structure in each factory, set up an energy cost centre, conduct monthly tracking analysis in combination with output fluctuation, equipment status, etc., and finally ensure lean and effective energy consumption.

In the production process, we use electricity, natural gas, gasoline and water as the main resources and energy.

## 2.2 Energy Conservation, Emissions Reduction and Clean Production

Type	Unit	Data in 2022
<b>Energy usage</b>		
Electricity	MWh	348,543.56
Heat	MJ	13,881.19
Natural gas	0'000 m <sup>3</sup>	2,068.30
Diesel oil	0'000 L	54.90
Gasoline	0'000 L	4.97
Liquefied Petroleum Gas	0'000 L	25.14
Comprehensive energy consumption	MWh	593,430
Comprehensive energy consumption density (based on revenue)	MWh /million CNY	11.92
<b>Greenhouse Gas Emission</b>		
Direct GHG emission (Scope 1)	tCO <sub>2</sub> e	43,669.50
Indirect GHG emission (Scope 2)	tCO <sub>2</sub> e	158,879.11
Total GHG emission (only include Scope 1 and 2)	tCO <sub>2</sub> e	202,548.61
GHG emission density (only include Scope 1 and 2)	tCO <sub>2</sub> e/million CNY	4.06
Other indirect GHG emission (Scope 3)	tCO <sub>2</sub> e	14,680.00

Note: The statistics for other indirect GHG emissions (Scope 3) are from Automotive Electronics Preh and include employee travel and raw materials (only plastic resins).

We continue to work on GHG emission reduction projects to reduce GHG emissions from our production activities by increasing our investment in renewable energy and continuously promoting energy efficiency improvement projects to reduce emissions per unit of product. In 2022, in addition to the control of conventional energy conservation, we completed many projects such as the PV power generation, heat energy recovery, and continued with projects that have been initiated in 2021 such as liquid nitrogen cooling energy recovery. Globally, our renewable energy sources electricity usage amounts reached 63,112.60 MWh in 2022, including 491.30 MWh from our own photovoltaic power. In our production subsidiaries, we have installed extensive photovoltaic facilities, generating 7,613.39 MWh of photovoltaic power for the year, equivalent to a reduction in greenhouse gas emissions of 5,145.92 tCO<sub>2</sub>e, with the remaining 7,122.09 MW of photovoltaic power being integrated into the local grid in addition to our own use.

## 2.2 Energy Conservation, Emissions Reduction and Clean Production

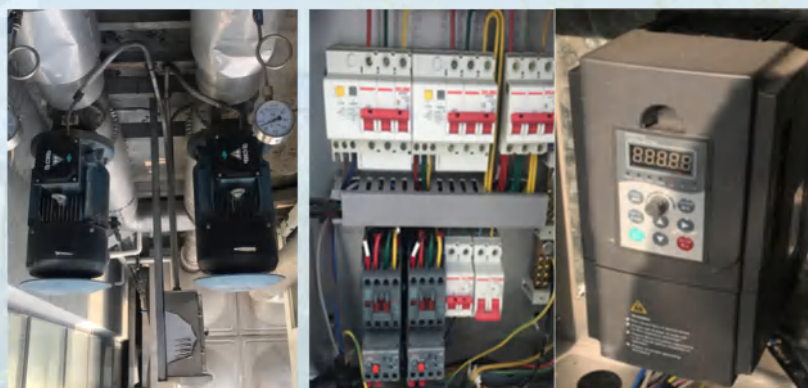
### Case: PV power generation

The total installed capacity has reached more than 4 MW at the headquarters campus of Joyson Electronics in Ningbo.



### Case: Circulation pump frequency conversion in Ningbo plant of Automotive Electronics Preh

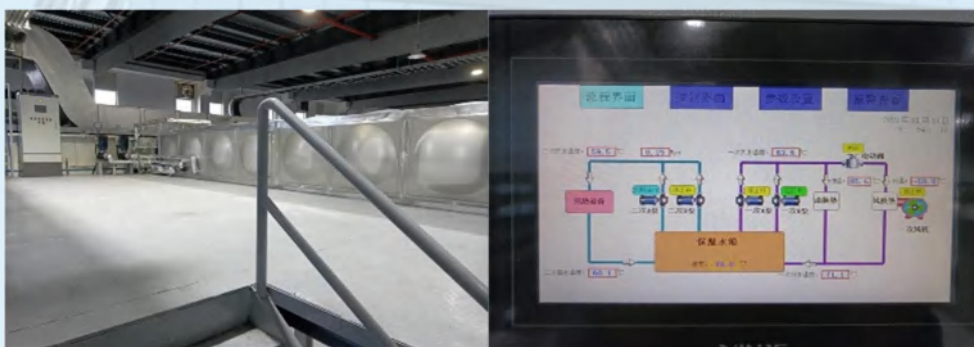
In 2022, we changed the contactor control of 14 industrial frequency pumps in our Ningbo plant to frequency converter control. Without affecting the effect of circulating water, the industrial frequency of each pump was reduced from 50HZ to 35HZ, saving about 1/3 of energy consumption per pump and 200 MWh of electricity annually.



## 2.2 Energy Conservation, Emissions Reduction and Clean Production

### Case: Heat energy recovery in Ningbo plant of Automotive Electronics Preh

The use of industrial waste heat is an important part of energy saving and emission reduction. In 2022, Automotive Electronics Preh Ningbo continued the heat energy recovery project already started in 2021. We enhance the workshop environment by recovering heat from the equipment to reduce the air-conditioning load in winter while enhancing the environment. This saves 100 MWh of electricity consumption per year and reduces atmospheric heat pollution.





## 2.2 Energy Conservation, Emissions Reduction and Clean Production

### 2.2.2 Use of Resources

#### Use of Resources

Water resources mainly come from municipal water supply, which is used for daily life and office. The water consumption will be actively communicated with relevant water supply departments after accurate prediction every year. There was no significant negative impact on local water sources due to water intaking during the Reporting Period.

Metrics	Unit	Data in 2022
<b>Water resource utilisation</b>		
Water usage	0'000 m <sup>3</sup>	174.21
Water consumption density (based on revenue)	m <sup>3</sup> / million CNY	35.00
<b>Wastewater</b>		
Wastewater discharge	0'000 tons	153.46

We strictly abide by local laws, regulations, and standards including the *Law on Prevention and Control of Water Pollution of the People's Republic of China*. We pay attention to the management of wastewater and prohibit the dumping of wastewater and waste liquid into rainwater pipe. Water contaminated by oil, chemicals and other hazardous wastes shall not be dumped into the sewage conduit. All business divisions and subordinate enterprises formulate corresponding wastewater treatment process and conducts daily spot checks on equipment dosing as well as monthly water quality testing by taking samples to ensure that the wastewater discharge meets the standards. In Automotive Safety System Huzhou plant, domestic wastewater is treated in a self-built wastewater treatment station to meet the primary standard of GB8978-1996 *Comprehensive Wastewater Discharge Standard* before being discharged.

For energy saving and emission reduction in water use, each BU has formulated its own water conservation plan. For example, Automotive Safety BU is currently planning to build a rainwater harvesting system to rationalise the use of rainwater and reduce the municipal water supply.

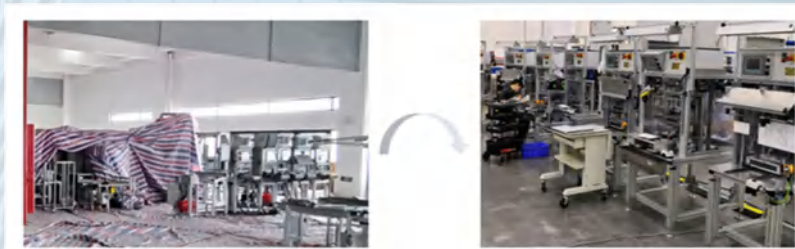
## 2.2 Energy Conservation, Emissions Reduction and Clean Production

### ► Packaging

In terms of the product packaging materials, the packaging materials we use every day can be divided into disposable materials and recyclable materials (such as pallets, paper products, packaging boxes, plastic boxes, etc.). We have achieved continuous improvement by improving the utilisation rate of packaging materials, recycling packaging materials and increasing the proportion of recyclable materials.

#### Case: Resource recycling

Automotive Electronics Preh has a dedicated recycling initiative for recyclable pallets, having converted 48 idle units and recycled 4,048 pallets in the last three years.



#### Case: Rearrangement to reduce packaging materials

In 2022, the Automotive Safety BU increased the standard number of packaged shelters by adjusting the packaging layout so that the original package size could accommodate more products, thus increasing the capacity of the intake by 25-50%. In the case of the retractor package, for example, the capacity of the package was increased from 4 to 6 by rearranging it.



### ► Raw Materials

In terms of raw materials and production waste, we continue to promote the recycling of raw materials. Taking the Automotive Safety BU as an example, we focus on the recovery of the steering wheel skeleton, i.e., magnesium aluminium alloy metal. In cooperation with raw material suppliers, we package and return all the scrapped magnesium aluminium alloy metal caused by the defective products of the steering wheel and customer returns to the supplier, and complete 100% recovery and reuse; In 2022, the Automotive Electronics Preh (China) officially launched the sorting and recycling of production scrap, following the “Disposal Process for Scraps” to divide metal scrap, plastic and paper from production lines according to type and then contact a qualified third-party company for recycling. In 2022, a total of 3,475 tonnes of various types of production waste were collected by Automotive Electrons Preh.

## 2.2 Energy Conservation, Emissions Reduction and Clean Production

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### 2.2.3 Wastes Management

We strictly abide by the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste*, *Management Measures for Hazardous Waste Transfer Receipt*, *Standard for Pollution Control on hazardous waste storage [GB18597-2001 (revised in 2013)]* and many other local laws, regulations and standards, all business units and subordinate enterprises have formulated corresponding management systems such as the "Waste Management", and emergency plans for environmental emergencies according to the actual operation, so as to realise comprehensive emission supervision and timely response to emergencies.

To implement targeted and compliant treatment of waste to minimise the impact of waste on the environment and realise resource recycling, we set up special collection buckets of different colours in the plant and office area according to waste materials and treatment methods, so as to classify and dispose the waste.

## 2.2 Energy Conservation, Emissions Reduction and Clean Production

Waste types	Waste categories	Disposal methods
<b>Hazardous waste</b>	<ul style="list-style-type: none"> <li>Waste solvent, paint residue, wastewater, waste paint bucket, wiping paper containing paint and gloves produced during spraying</li> <li>Bottle and can after use, it is used to contain oil and other volatile, flammable and explosive chemicals that are harmful to the environment and human body</li> <li>Processing liquid, processing lubricating oil, pressure maintaining oil and other chemical liquids with oil after use</li> <li>Gloves, rags, paper, etc. with various oils during processing</li> <li>All kinds of batteries include batteries, Ni MH batteries and lithium batteries</li> <li>Abandoned fluorescent tubes and incandescent lamp bodies</li> <li>Scrap PCB board containing electronic parts</li> <li>Printer toner cartridge and ink cartridge</li> <li>Other undefined wastes that have significant impact on the environment and human body.</li> </ul>	All shall be disposed by qualified third-party organisations, and the qualification of the organisation's hazardous waste treatment directory shall be reviewed every year.
<b>Recyclable waste</b>	<ul style="list-style-type: none"> <li>Paper packing box and foam packing box</li> <li>Plastic leftovers and plastic reels, PCB cutting leftovers (excluding circuit parts)</li> <li>Wastepaper and paper packaging materials</li> <li>Metal scraps generated after cutting and damaged metal parts of the machine (except metal bottles and cans containing oils and chemicals in processing).</li> </ul>	Recyclable wastes shall be recycled regularly by the designated qualified waste material recycling company.
<b>Non-recyclable waste</b>	<ul style="list-style-type: none"> <li>Office domestic waste</li> <li>Waste containing small paper / plastic fragments, which has no recycling value or cannot be sorted and recycled.</li> </ul>	Non-recyclable waste and domestic garbage shall be specially recycled by municipal sanitation.

Index	Unit	Data in 2022
Total waste	Metric tons	1,786,970.03
Hazardous waste	Metric tons	995,478.66
Non-Hazardous waste	Metric tons	791,491.37

## 2.2 Energy Conservation, Emissions Reduction and Clean Production

### 2.2.4 Exhaust Gas management

According to different production processes, the types of exhaust gas emission of each business division are also different. Taking the Automotive Safety BU as an example, the exhaust gas mainly comes from the foaming and wrapping links in the steering wheel process, and the types of exhaust gas are mainly non methane total hydrocarbons and particulate matter. Taking the Automotive Electronics BU as an example, the emission of VOCs is the main type from injection molding and painting. We prefer efficient disposal equipment, and relevant departments will carry out daily operation records, daily maintenance, inspection and repair of exhaust gas emission equipment, exhaust systems and treatment devices according to the specified requirements and keep relevant inspection records. We conduct emission management in strict accordance with the emission requirements higher than the national compliance standards, cooperate with the irregular surprise inspection of the environmental protection department, and regularly entrust a professional third-party organisation to carry out testing in accordance with the provisions of the Environmental Protection Agency.

Case: RTO facilities had been used in Automotive Electronics Preh, the waste gas collection rate of fully enclosed painting line is 95%, and the RTO treatment rate is 90%.



Painting workshop RTO facilities

Case: RCO facilities had been used in Automotive Electronics Preh, the waste gas collection rate of fully enclosed painting line is 95%, and the RTO treatment rate is 90%.



Painting workshop RCO facilities

### Case: Automotive Safety BU exhaust gas treatment plant

According to *Shanghai Integrated Emission Standard of Air Pollutants [DB31-933-2015]*, the Automotive Safety BU has built five VOC treatment systems at the Lingang plant. The exhaust gas passes through the pre-filter of the VOC treatment system and then to the activated carbon absorber for adsorption and purification, and the organic pollutants in the exhaust gas are adsorbed by the activated carbon and treated by catalytic combustion and then emitted at a height of 15 metres. According to the requirements of the Shanghai Municipal Bureau of Ecology and Environment, an online monitoring system is installed, and real-time monitoring and recording of pollutant emissions are carried out through networking with the Fengxian District Bureau of Ecology and Environment.

## 2.3 Noise Management and Biodiversity Protection

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### 2.3.1 Noise Management

Noise is an important factor causing environmental pollution and damage to employees' health. We know the harm of noise, control and prevent this hazard source, and reduce relevant risks by designing layout, installing damping devices and equipping personal protective equipment.

Taking the Automotive Electronics BU (China) as an example, the production noise mainly comes from the operation of production equipment (mould processing centre, injection moulding machine, etc.) and auxiliary equipment (air conditioner, air compressor, exhaust fan, etc.) in the production area. Through reasonable layout of workshops, provision of personal protective equipment, selection of low-noise advanced equipment, setting isolation base devices or laying shock absorption pads for equipment with relatively high noise, the impact of noise has been reduced to a lower range. In order to carry out continuous monitoring, we also appoint a professional third-party organisation to regularly detect the noise at the plant boundary. In case of any abnormality, we will carry out follow-up improvement in accordance with internal procedures.

### 2.3.2 Biodiversity Protection

We fully recognise the importance of biodiversity protection. At site selection stage of project construction, we should take biodiversity protection factors into account, carry out environmental impact assessment in accordance with the requirements of laws and regulations, and do not develop projects inside the ecological redline, so as to fundamentally reduce the impact of project construction and post operation on biodiversity.

# 03

## Openness and Inclusiveness

- 3.1 Employment Standards
- 3.2 Caring for Our Employee
- 3.3 Training and Development
- 3.4 Health and Safety

### 3. Openness and Inclusiveness

We believe that our employees are partners and that our corporate culture is the driving force behind our continued growth, and therefore strive to create a collaborative philosophy of "ONE TEAM" on a global scale. We adhere to the concept of people-oriented and respond positively to the UN SDGs 3, 4, 5, 8, 9 and 10, creating a multi-dimensional corporate culture from the development of organisational structure, sustainable talent training and employee care.



Long-term targets	Practical measures	2022 Achievements
Solving staff's difficulty and let them work decently	Establishing the "Joyson Cares Fund"	the "Joyson Cares Fund" has subsidized 44 people and given out CNY320,000 in 2022
Continuous improvement of employee satisfaction	Encourage employees to participate in opinion surveys Organise employee events Provide the facilities that employees need	Employee satisfaction survey with 89.7% participation rate and average score of 88
Continuous increase of the proportion and length of staff training	Organise large-scale activities such as "Joyson Talks" and global joint training programme, internal training, school-enterprise cooperation, etc. Encourage self-improvement	Automotive Electronics Preh has provided 67,516 hours of training worldwide, 8.50 hours per person
Continuous improvement of work safety	Conduct safety training, issue workplace protective equipment, reduce the risk of occupational diseases and strengthen chemical management	Zero work-related fatalities and over CNY76 million invested in production safety



## 3.1 Employment Standards

Employees are always the most important asset of Joyson Electronics and the core driving force of development. We strictly abide by the *Law of the People's Republic of China on Labor*, the *Law of the People's Republic of China on Labor Contract* and other local relevant laws and regulations. The company has formulated the "Recruitment and Hiring Management System" "Employee Separation Management System" and other policies. We respect the rights and interests of every employee, and provide with competitive salary and welfare, so as to make employees work more safely, decently and with dignity. We value mutual commitment with our employees and strive to become an excellent employer in our employees' mind.

During the Reporting Period, Joyson Electronics did not violate laws and regulations such as discrimination, child labor, forced and compulsory labor, violation of the right to freedom of association or collective bargaining.

### 3.1.1 Equality and Diversity

Diversification and equal opportunities are our basic policies. We provide all people with equal employment opportunities and working environment to ensure that employees are not affected by race, color, religion or belief, gender (including pregnancy, gender identity and sexual orientation), sexual characteristics, transgender, age, genetic information, marital status, veteran status or disability. Relevant terms are described in internal documents such as "Staff Handbook", "Code of Business Conduct" and communicated to all employees. We respect employees' privacy and different value propositions under Joyson Electronics' values and are committed to creating a diversified, open and equal working atmosphere.

By the end of 2022, Joyson Electronics had 44,391 employees worldwide. We continue to promote the proportion of female in the management of the Company. There were 18 management employees (directors, supervisors, senior executives) at the year end, of which 22.2% were female.

We adhere to localised employment principle and provide more employment opportunities for the communities where our platform located. Automotive Electronics Preh has signed a letter of intent to build new high-end automotive electronics engineering development centre in Yucatán, Mexico. In the future, the new engineering development centre in Yucatán, Mexico, will focus on product design and development related to artificial intelligence (AI) and automotive electronics. In the short to medium term, this new engineering development centre is expected to recruit 300 people in high-tech engineering, software design and hardware. Both the construction of the development centre and its subsequent operation will provide more job opportunities for the local community.

In the future, we will continue to explore talent recruitment methods and talent introduction strategies and create various ways of talent interaction and exchange.

Number and proportion of employees by function

Function	2022		2021	
	Number	Proportion	Number	Proportion
Production Operations	37,092	83.56%	35,994	83.49%
Marketing and Sales	337	0.76%	353	0.82%
Research and Development	4,949	11.15%	4,580	10.63%
Financial Management	678	1.52%	702	1.63%
Administrators	1,205	2.72%	1,216	2.82%
Others	130	0.29%	265	0.61%

## 3.1 Employment Standards

### 3.1.2 Protection of Employees' Rights and Interests

We follow the principles of fair, just and open employment. We adhere to the legal and compliant employment policy, protect the basic legitimate rights and interests of employees, and eliminate child labour, forced labour and employment discrimination.

We have established a comprehensive mechanism to protect the rights and interests of our employees, as well as relevant communication and grievance channels. Employees can express their opinions directly to their supervisor, the Human Resources Department, or the General Manager, and the Company will keep the content confidential. The Company has established trade unions or staff representative organisations in accordance with the local laws, regulations and its business needs, to effectively protect the rights and interests of its employees. Employees can also voice their grievances through staff representatives or trade unions.

#### Labor Contract

We strictly abide by the *Law of the People's Republic of China on Labor Contract*, sign labor contracts or employment contracts with all employees according to the requirements of laws and regulations, and clearly review the positions, working hours, labor protection and remuneration of employees in the contracts.

#### Social Insurance Payment

According to national and local laws and regulations, we pay social insurance for all employees such as basic pension, basic medical care, unemployment, industrial injury, maternity, etc. Each subsidiary can also purchase additional relevant insurance such as accidental injury insurance for employees according to the particularity of industry or position.

#### Prohibition of Forced Labour

We prohibit all forms of forced labor and prohibit any department personnel from forcing employees to work by collecting deposits, detaining certificates, violence, threats or illegal restriction of personal freedom.

#### Prohibition of Child Labour

The Company establishes, documents, maintains and effectively communicates to its employees and stakeholders policies and measures aimed at promoting education for children and young people who meet the age requirements of local compulsory education legislation or who are currently enrolled in school, as covered by the provisions of ILO Recommendation No. 146. The Company's Staff Handbook and recruitment conditions emphasise the prohibition of child labour, and in order to prevent accidents, the Company verifies personal identification in the recruitment process, as well as social insurance certificates provided by the government, thus ensuring that the entire operations comply with the law.

#### Freedom of Association and Collective Bargaining

We respect the freedom of association and collective bargaining rights of employees and implement the signing of collective bargaining agreements in accordance with the nation and local laws and regulations. The Company will communicate with the general meetings of employee representatives and the trade unions on all policies that affect the core interests of employees. The Company's staff handbook, remuneration system, leave system and other systems are voted on by the general meetings of employee representatives and are made public as required. During the reporting period, the majority of employees were covered by the company's collective agreements.

We also provide support for various employee activities. In 2022, our union organised 25 cultural and sports events, including the Joyson Food Festival, the Joyson Global Football Tournament and the Online Sports Games, with a total of more than 7,000 participants.

## 3.1 Employment Standards

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### Salary and Benefits

We have developed systems such as the “Employee Compensation and Benefits Administration System”. We regard employees as partners, and work with them to win together and stimulate the vitality of talent. At present, the Company's salary mainly consists of three components: salary (position-based pay and merit pay), bonus (project incentives), and benefits (welfare and allowance). The overall salary is affected by the salary level in the country and region, the competition in the talent market and the Company's human resources strategy. We will understand the changes of salary and benefits around the world to ensure that the salary and benefit level and growth level of the Company's employees around the world match the local talent market and are competitive. In addition, the Company has also adopted medium and long-term incentives to create an entrepreneurial atmosphere and stimulate the passion willingness of its core employees to better promote corporate development. For example, the Company has implemented the Employee Stock Ownership Plan (ESOP) in 2021, which has established a community of interests between employees, shareholders and the Company and promoted the Company's performance improvement and long-term stable development.

## 3.2 Caring for Our Employee

Joyson cares about the work and life of every employee. The Company regards its employees as the cornerstone of development, and our employees regard the Company as the most reliable supporter. We pursue precise welfare and hope to start from the real demands of employees, so that the care project can truly benefit all aspects of employees' clothing, food, housing and transportation.

### Staff Canteen and Fitness Centre

We pay attention to the healthy diet of employees. In order to ensure the nutrition of employees, we have set up free canteens at all operation sites and promote a dining method similar to hotel buffet, so that employees can have more choices. For the satisfaction of dishes, we will attract employees to participate and get to know their opinions in the form of questionnaire with small gifts quarterly.

In order to enable employees to better balance their work and life, we have established a free fitness center in the office, so that employees can exercise and relax and keep healthy under the guidance of professional fitness coaches after work.



Joyson Electronics canteen and fitness center

### Housing support

We hope to help our employees in housing and settling down, so as to provide them with more sense of belonging in the city where they work. Therefore, we studied the stereoscopic solution. In addition to the housing provident fund stipulated by national laws, we also provide a variety of support for employees:

- When purchasing housing, employees can apply for a certain proportion of down payment funds to solve the dilemma of insufficient start-up funds.
- Provide a certain proportion of interest free loans to avoid the decline of employees' life quality due to heavy repayment pressure.
- Help employees actively apply for talent housing or housing preferential projects provided by the local government.

In addition, we also provide rental support for employees. In Ningbo, we rented a staff dormitory that can reach the office within 5 minutes' walk, which can solve the housing problem of at least 1,000 people. There is a Worker's Home in the staff dormitory, equipped with TV, pools, free Wi-Fi and other entertainment equipment, so that employees can carry out recreational activities in their spare time.

## 3.2 Caring for Our Employee

### Joyson Cares Fund

In the process of building the corporate culture, the management of the Company attaches great importance to the construction of an enterprise with harmonious labour relations, which focuses on the "three cares" project, i.e. caring for employees in difficulties, caring for the interests of the majority of employees and caring for the model workers. In order to further form a long-term mechanism of caring for employees, we established the Joyson Cares Fund in 2013, which is mainly used for emergency rescue and support for employees in difficulty.

The fund is financed mainly by voluntary contributions from employees and the Company. Through the "Joyson Cares" manual distributed by the management committee; employees can know how to apply for this Joyson Cares Fund. The distribution of each batch will be publicized on the public bulletin board, including some personal information of the recipient employee and the amount of the recipient, etc., to achieve fairness, justice and openness.

Since the establishment in 2013, we have raised more than CNY2 million for Joyson Cares, funded more than 500 employees in need, and distributed CNY 1.9 million totally. In 2022, 44 employees were subsidised, with a subsidy amount of CNY320,000.



Joyson Cares Fund

## 3.2 Caring for Our Employee

### Continuous Improvement of Employee Satisfaction

We value and continue to improve the satisfaction of our employees. In 2022, we conducted an employee satisfaction survey and promoted improvement measures in five major areas to further enhance our corporate culture, hardware facilities and services to ensure a better working environment and working atmosphere for our employees, as follows:

Targeted areas	Improvement	Measures
Work functions	Self-perception	<ul style="list-style-type: none"> <li>Establish a cross-function team for specific analysis and solutions to specific problems;</li> <li>The department where the problem occurred will be the team leader, responsible for organising responding actions and following-up;</li> <li>Criteria for assessment and evaluation of cross-function team established.</li> </ul>
Management	System and process	<ul style="list-style-type: none"> <li>Enhance digitalisation and application to improve information sharing and management capabilities and increase efficiency;</li> <li>Continuous process optimisation, such as continuous optimisation of the project development process and pilot production process.</li> </ul>
Environment	Corporate culture, communication and cooperation	<ul style="list-style-type: none"> <li>Strengthen the promotion of the corporate culture and enhance team cohesion, such as further organising festive events and team building activities;</li> <li>Further strengthen cross-function communication and collaboration and establish cross-function working groups for specific analysis of specific issues.</li> </ul>
Career development	Training	<ul style="list-style-type: none"> <li>Organise diversified training, workshops;</li> <li>Provide more training related to professional skills, e.g. product knowledge, etc;</li> <li>Further enhance staff understanding and application of organisational structure, workflow, rules and regulations.</li> </ul>
Salary and benefits	--	<ul style="list-style-type: none"> <li>Further understand the remuneration package in each department and benchmarking against the current market average for each position;</li> <li>Organise more competitions in the Company or departments, such as basketball, badminton, table tennis, etc;</li> <li>Improve the speed of serving food in the staff canteen at lunchtime; further improve the quality of dinners;</li> <li>Establish a catering committee to monitor related implementations.</li> </ul>

## 3.2 Caring for Our Employee

### Case: Joyson Family Open Day

On 5 November 2022, Joyson Safety BU held a family open day at its headquarters in Minhang District with the key words “fun, delicious, creative and empathetic”. Family members of employees were invited to visit the newly completed Minhang headquarters. 145 groups of families and about 500 people participated in the event on the day, and 150,000 views were recorded on the online photo broadcast. Activities on the day included: signature photo punch, lab & showroom tour, group photo shoot, staff family talent show, parent-child interactive games, buffet, etc. The staff took their families on a tour to understand the business and technical achievements of Joyson, such as the integrated safety system for cars, seat belt protection system, driver detection system and airbag protection system, so that the staff's families could better understand the work of the staff and promote family harmony.



Family Open Day

## 3.2 Caring for Our Employee

### Daily Care

In order to build an equal working environment for all employees, we provide the necessary working and living facilities for special groups such as female or physically-challenged employees in accordance with the law, such as childcare rooms and facilities to facilitate disabled employees.



Parking spaces for the Physically-challenged



Accessible entrance ramp



Mother & baby room



Mother & baby room in Preh Ningbo site



## 3.3 Training and Development

The Company cooperates with the world's leading human resources service provider to grade the Company's positions, regulate the training and selection of employees with a system of job qualification standards, establish a career path for employees and pull them to learn continuously, while providing an important basis for human resources related work such as promotion and remuneration.

We insist on building a growth model of collaborative development and mutual achievement with our employees. We have established internal policies such as the "Staff Personal Development Management System", the "Training and Learning Management System". We are determined to create a learning atmosphere, build a multi-level professional training system and invest high-quality resources to help our employees continuously improve their professional development through multiple approaches. The total training time for employees at Automotive Electronics Preh is 67,516 hours and 8.50 hours per person in 2022.

### Global Joint Training Model

As a multinational enterprise with international business and global staffing, in order to realize the rational allocation of human resources within the organization and improve the organizational cultural identity and the synergy of working methods, we have established diversified global joint training modes such as Elite Program, Nova Program <sup>note</sup> etc., for different professional and functional positions.

The elite programme-Nova program is a Chinese-German joint training and rapid development project for fresh graduates. After graduating and joining Joyson Electronics, fresh graduates will first take comprehensive quality training, language training to sharpen the skills in China for one to two years, and then be sent to European companies for two years to improve their professional capabilities and international thinking. By participating in global development projects, they consolidate their professional capabilities in technology R & D, learn the advanced development technology and production process in Germany, and they will return to China after two years' study to improve Joyson's R&D strength with what they have learnt, international perspective and innovative way of thinking.

This programme has already sent out more than 100 young engineers since the end of 2018, the number of engineers benefited from this programme in 2022 increased by more than 70 compared to that at the end of 2021 . They have been sent on joint training courses to Joyson's subsidiaries in Germany/USA/Japan, where they have been involved in global project development and have also been on site at our Romanian and Polish subsidiaries on several occasions to learn about pilot production.

Note: N in NOVA stands for Newbie, O stands for Orientation in China, V stands for Valuable interchange in JQ Germany, and A stands for Apply in JQ China.

## 3.3 Training and Development

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### Encourage Self-improvement

Joyson Electronics is committed to creating a learning organisation atmosphere and encourages employees to pursue a self-improvement plan according to their own situation. If employees are willing to continue their further study, we will adjust and take care of them in the shift arrangement and give them some financial incentives after obtaining relevant certificates. In terms of strengthening the construction of talent echelon, we have also issued the “Policy of Encouraging Joyson Personnel Training” and formulated supporting systems such as “Employee Education Promotion System” and “Policy of Encouraging Employees to Obtain Professional Titles and Qualification Certificates”.

We actively provide a variety of education promotion support projects such as upgrading from junior college to undergraduate, Master of Engineering and MBA. Employees can participate in corresponding projects according to their own situation to improve their professional skills and management ability. In 2022, the number of engineering masters admitted through the Company's platform program reached more than 50, and more than 120 students went on to study at the tertiary level. For professional technicians, such as R&D positions and basic technical positions, we encourage them to obtain corresponding professional titles and qualification certificates according to the development sequence of their profession. We also encourage our staff to pursue doctoral and post-doctoral studies, and more than 10 Joyson employees are currently pursuing doctoral or post-doctoral studies.

### Internal Training

We focus on internal training and encourage experienced staff to share their work experience and knowledge. We have developed a well-established system for the selection of internal trainers:

- Internal trainers must have certain professional specialties, as well as the ability to organise their knowledge and express themselves verbally;
- Internal trainers must have at least 2 years of work experience in a relevant field;
- They should be willing to exchange and share knowledge and experience;
- They should recognise the Company's culture and have the willingness, enthusiasm and sense of responsibility to act as an internal trainer.

Internal trainers are divided into three categories: reserve internal trainers, official internal trainers, and special internal trainers. Formal internal trainers are divided into junior, middle, and senior levels. The assessment of internal trainers adopts a “three-dimensional” evaluation and assessment mechanism, i.e. trainee satisfaction, evaluation by training management function and training performance.

## 3.3 Training and Development

### School-Enterprise Cooperation

We pay attention to the excavation and cultivation of potential talents and build a talent training base through in-depth cooperation with government talent departments, employment departments and schools. With the vigorous development of Chinese automobile industry, we have accelerated the cooperation with vocational colleges and scientific research universities in student training practice since 2008.



School-Enterprise Cooperation

## 3.4 Health and Safety

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It is our basic responsibility to ensure that employees have a safe working environment. We try our best to create a safe and healthy working environment, maintain the safety of each working place, and try our best to avoid physical injury to employees due to any dangerous factors. In 2022, we invested a total of CNY76 million in safety projects. During the Reporting Period, there were no safety violations that had a significant impact on Joyson Electronics and our employees.

### Strengthen Leadership

On the premise of relevant laws and regulations in the place of operation such as the *Law of the People's Republic of China on safe Production* and the *Law of The People's Republic of China on Prevention and Control of Occupational Diseases*, we have continuously learned the management concepts and methods in the world's leading practice, actively promoted the construction of occupational health and safety system, and established more mature occupational health and safety management system including policies, commitments, organisational structure, target performance, education and training, operation management and emergency response. At the same time, we confirmed the objectives and indicators of safety, environmental protection and occupational health throughout the year in the form of safety production responsibility statement and formulated additional special tasks in combination with the weak links found in each factory in the previous year, which were included in the responsibility system assessment, and further controlled and observed through annual assessment, flight inspection and other measures. We implement strict staff health and safety risk assessments for all types of premises, and the ratio of obtaining ISO45001 and other safety management system related certifications for each operation site around the world is gradually increased, taking Automotive Electronics Preh as an example, the ratio of obtaining ISO45001 and other safety management system related certifications is 100%, covering 100% of Automotive Electronics Preh employees.

Each business unit has set up its own EHS management policy and has formulated corresponding targets and implementation plans in accordance with the policy.

## 3.4 Health and Safety

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### EHS Policy of Automotive Electronics Preh

The work safety organization shall continuously develop, realise and optimise the concept of work safety according to the specific regulations and conditions of various countries. We ensure the health of employees by maintaining a safe working environment according to the following control levels:

- Eliminate and replace hazard sources as much as possible
- Take technical measures to promote machine safety and workplace ergonomics
- Take organizational measures, such as instructions
- Provide and use personal protective equipment

### Automotive Safety BU EHS target programme development process

Safety is an important component of all the actions of the Automotive Safety BU, from research and development activities to manufacturing and operations. Each of us has a responsibility to act in a way that protects us and others. The goal of “creating a safe and healthy workplace” can only be achieved through the active participation and support of everyone. Safety is a condition of our employment, and we expect every director, senior management and employee to be committed to making the Joyson Automotive Safety BU an accident-free workplace.

During the Reporting Period, there were no work-related fatalities of employees at the business locations of the business units under Joyson Electronics.

## 3.4 Health and Safety

### Publicity and Education

We deepen safety awareness in staff training, and regularly carry out safety awareness and safety training in multiple dimensions around the occupational health and safety management system. We specifically list the safety rules in the “Staff Handbook”, which requires all employees to report unsafe conditions and strictly abide by the health and safety regulations of the office and the factory. In case of any emergency, such as fire, typhoon, flood, etc., we must report it immediately to evacuate other employees. In 2022, each business unit carried out the corresponding publicity and education, for example, the Automotive Safety BU (China) carried out nearly 12 safety production activities including safety production theme month, safety production knowledge Q&A, fire safety skill competition and other activities, with more than 5,000 employees participating. Automotive Electronics Preh has carried out many safety-related educational activities, such as fire drills.



Automotive Safety BU Safety Education

### Case: Fire drill of Automotive Electronics Preh

On 8 November 2022, two fire drills were held during the day shift and evening shift at Automotive Electronics Preh of Ningbo plant, covering nearly 1,200 people, to strengthen staff's emergency awareness and self-rescue capabilities.



## 3.4 Health and Safety

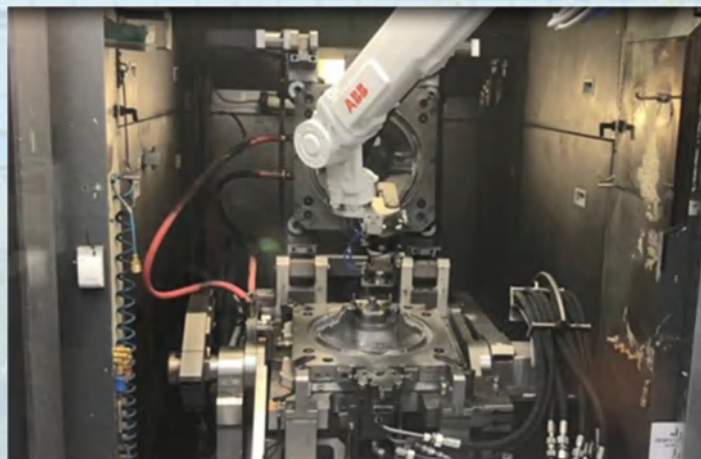
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### Reduce Occupational Hazards

We are committed to continuously reducing occupational hazards, identifying occupational hazard factors in advance, and then actively carrying out occupational disease status evaluation. According to the status evaluation results, we conduct annual occupational disease factor monitoring for occupational hazard posts. We fully guarantee the employees' right to know, conduct pre-job, on-the-job and off-the-job occupational health examination for employees in combination with the characteristics of occupational disease posts, and establish archives. The EHS is responsible for file management and regularly updates the "Occupational Disease Factor Identification Form", the "Occupational Disease Hazard Exposure Checklist" for "Personnel and the Occupational Health Care Form for Personnel in Occupational Hazard Exposure Positions". We also carry out long-term tracking of employees in positions that may involve potential occupational hazards such as painting, injection moulding, steering wheel foaming process and coating process, issue corresponding labour protection articles that meet national standards, and further reduce the possibility of injury caused by occupational diseases in combination with process improvement every year.

### Case: Robotic spray coating

The Automotive Safety BU plans to use robotic spray coating in the steering wheel foaming process, where robots replace humans in the placement of the skeleton, spraying and pick-up actions, reducing human exposure to paint mist and thus significantly reducing the risk of occupational asthma, etc.



## 3.4 Health and Safety

### Emergency Management

In order to strengthen the emergency handling capacity of environmental emergencies, reduce and eliminate the occurrence of relevant risk events, we have carried out the emergency response in accordance with *Risk Classification Method for Environmental Emergencies in Enterprises (HJ941-2018)*, *Guidelines for the Review of Emergency Plans for Environmental Emergencies in Enterprises and Institutions (Trial)* and other relevant requirements of the operation location. According to the operation practice of each business unit, we compile “Emergency Preparation and Response Control System” and other systems, establish comprehensive emergency plans and on-site disposal plans related to environment, safety, and production, set up emergency organizations, ensure complete capital and material support according to the plan contents, and regularly implement the publicity, training and drill of the plan.

### On-site External Personnel Management

For long-term resident suppliers, we manage and require them according to the standard of managing our own employees. Any supplier entering the factory park will be trained by the EHS team and will require the supplier to read the safety rules and sign relevant documents to complete the notification obligation. The Automotive Safety BU will inform external visitors of the safety requirements in the form of visitor list and require them to sign. For external supplier personnel on-site and those engaged in construction, all of them shall sign the construction registration form and construction safety notice. Automotive Electronics Preh has also developed a “Code of Conduct for External Personnel”, which supplier personnel are required to sign.

### Chemicals Management

We are well aware of the importance of chemical management to safe production. We have strictly followed the local laws and regulations such as the *Regulation on the Safety Administration of Dangerous Chemicals*, the *Regulations On the Safe Use of Chemicals In the Workplace*, the *Safety Code for Special Operations of Chemical Production Units (GB30871-2014)*, and established systems such as “*Chemical Management Procedures*” in combination with the practice of each business unit to integrate a series of processes, such as the responsibilities of each department, chemical application, purchase, loading and unloading, handling, temporary storage, identification, usage, abandonment and disposal, to the standardised management to avoid the impact and the hurt on the environment and personnel.

In order to improve employees' awareness of chemical safety management, we hold special training on chemical management and special exercises on chemical leakage in various places. The training covers topics such as types of hazardous chemicals, list of hazardous chemicals at operation points, characteristics of common chemicals and emergency treatment, protection and precautions for users, accident case sharing and so on.



Local Chemical Training and Safety Drill



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## Mutual Progress and Prosperity

- 4.1 Quality First
- 4.2 Customer Services
- 4.3 Ensuring Steady Supply
- 4.4 Public Welfare

## 4. Mutual Progress and Prosperity

We have always been actively responding to UN SDGs 3, 4, 7, 9, 11, 12, 16 and 17, with a vision to achieve mutual progress and common prosperity. Such efforts include integrating enterprise development with ecological conservation in the local community, shouldering corporate social responsibilities, getting engaged in public welfare undertakings, and pursuing long-term sustainable development.



Long-term targets	Practical measures	2022 Achievements
Continuous improvement of talents retention rate	Implement talents retention and innovation incentive measures	Average service years of the global R&D engineers: 9
Continuous enhancement of innovation capability	Continue to invest in Joyson Advanced Energy Institute and Joyson Intelligent Driving Research Institute to enrich in-house intellectual property rights	Total R&D investment: CNY 3,033.87 million, accounting for 6.09% of operating revenue Core patents worldwide: over 4,000
Continuous enhancement of supply chain resilience	Conduct supplier audit, sign Code of Conduct and other agreements with suppliers, and provide ongoing training sessions to suppliers	No ESG-related significant risks identified; no suppliers terminated due to significant environmental or social risks
Continuous industry-university-research partnership	Establish cooperation with more than 30 prestigious universities on R&D projects and joint talents cultivation	Specific R&D projects initiated: over 10 Talent output under the joint cultivation: 7 post docs, 6 doctors of engineering and over 100 graduates of engineering

## 4.1 Quality First

### 4.1.1 Product Innovation and Intellectual Property Rights Management

As a global provider of automotive electronics and vehicle safety components, we adapt to the four new trends in the automotive industry (intelligentisation, networking, electrification and sharing) and continuously ramp up our R&D investments in cutting-edge technologies, as part of an effort to enhance our competitive edge and uplift technical barriers. So far, we have established an R&D network covering major automobile production locations worldwide. We have also established specialised technical research institutes for an active technology deployment in the fields of electrification and intelligentisation.

Joyson Advanced Energy Institute is dedicated to the innovative R&D activities on the battery management system (BMS), as well as cutting edge technologies and products in the new energy vehicles field. It has worked with external partners to establish the Key Laboratory on Automotive Electronics Intelligence of Zhejiang (浙江省汽车电子智能化重点实验室) and the Zhejiang Enterprise Research Institute (浙江省企业研究院).

Joyson Intelligent Driving Research Institute is dedicated to the platform-based innovative R&D activities on “chip + algorithm + software”, covering the entire intelligent driving technology stack, and is committed to the in-depth integration of AI technology into the automotive industry.

In 2022, our total R&D investment was CNY3,033.87 million, accounting for 6.09% of operating revenue.

#### R&D Team and Innovation Incentive Mechanism

Our global innovative R&D network covers major automobile production locations worldwide, with a total R&D headcount of 4,900, and capable for quick response. We always value talents as the prime driving force behind technological innovation, and focus on enriching our talents recruitment channels and talents attraction strategies to ensure our core competitiveness.

Each year, we acquire more than 200 fresh graduates (50% of them with a master's degree or above) from Tsinghua University, Harbin Institute of Technology, Tongji University and other prestigious universities. Our national-level PhD workstation, Key Laboratory of Automotive Electronics Intelligence of Zhejiang and other R&D platforms have attracted more than 20 experts with doctor's degree in algorithm, software and semiconductor over recent years, a powerful booster for our competitive edge in the fields of new energy vehicles, intelligent driving, and intelligent cockpit.

Meanwhile, we strive to improve our retention rate of key talents, and have achieved year by year improvement via rapid business expansion and targeted and generous benefits, such as the Preferential Housing for Talents, Patent Incentives, On-the-Job Postgraduate Programme and other programmes. As of the end of 2022, the average service years of the Company's R&D staff was 9 years.

We have also taken multiple incentive measures to encourage innovation. For example, we have formulated the “Incentive Agreement for Service Invention” to encourage the design, application, and implementation of innovative R&D projects through cash rewards, etc. We also provide financial support to R&D personnel working on scientific articles in their research fields. In 2022, our employees published 3 papers which were selected into the Collection of Selected Papers by the international Vehicle Electrification and Intelligent Driving Technology Forum (汽车电动化与智能化技术国际论坛) and the SAE International (汽车工程学会).

## 4.1 Quality First

### Intellectual Property Rights

While insisting on long-term investment in research and development, Joyson Electronics has continuously enriched its own intellectual property accumulation, protected its own intellectual property and respected the creative achievements of others. We follow the *Patent Law of the People's Republic of China*, the *Enterprise Intellectual Property Management Code* (GB/T29490-2013) and other laws and regulations of the operating location, and have formulated systems such as “Guidelines for the Protection of Trade Secrets” and “Patent Management Regulations” at the level of each business unit of Joyson Electronics, which include patent application, patent search, patent fee payment, patent right management, patent-related responsibilities and obligations, and patent rewards into strict process control. In order to strengthen management, we have established a patent management department combined with the intellectual property specialists to strengthen control. We have also carried out training related to intellectual property, hired external teachers to give lectures, in the form of both centralized training and targeted counseling training, to increase the knowledge and awareness of relevant employees in intellectual property.

Currently, we own more than 4,000 core patents worldwide, including core technologies in the field of automotive safety and automotive electronics.

### Case: Innovative training courses on intellectual property rights

In 2022, we actively held multiple training courses on intellectual property rights for various business units. Topics involved include briefing on basics of intellectual property rights, patent pre-examination and IP rights confirmation, use of IP rights retrieval databases, IP rights practice and case analysis, current status and trends of automotive IP rights in China, patent application and authorisation, and patent-centric thinking, etc.



## 4.1 Quality First

### Industry-University-Research Partnership

We have conducted industry-university-research partnership with more than 30 prestigious universities (such as Peking University, China Europe International Business School, Zhejiang University, Tongji University and Northwestern Polytechnical University), on R&D projects and joint cultivation of talents. As of the end of 2022, we had initiated over 10 specific R&D projects, and cultivated 7 post doctor degree holders, 6 engineering doctorate holders and over 100 master graduates of engineering through our co-cultivation programme.

Joyson Electronics' university-enterprise collaborative R&D Projects mainly include joint laboratories co-established with Zhejiang University and Tongji University, and other projects cooperated with university R&D teams. Based on the requirements for technological transformation, new product R&D, experience management and business model innovation, more than 10 projects had been approved and implemented under the university-enterprise cooperation every year, and certain milestones had been achieved for many of such projects, involving algorithm for battery state estimation, active battery equalisation, 48V power supply system, wireless charging solution and system architecture for electric vehicles, algorithm for power estimation based on internal resistance and thermal model of lithium batteries, battery temperature estimation method based on internal resistance of lithium batteries and the relevant protection strategy, etc.



The Intelligent Driver Controls and New Energy Electronic Control System Laboratory jointly established by Joyson Electronics with Tongji University was awarded the Provincial Level 1 Laboratory of Intelligent Vehicle Technology in Zhejiang Province

### Promoting Industry Development

We insist on promoting industry cooperation and expanding the technology application via joint development to maximise the benefits of university-enterprise partnership. During 4 to 6 November 2022, Automotive Electronics Joynext signed a comprehensive cooperation memorandum with Huawei Device Co., Ltd. (华为终端有限公司). The two sides will focus on in-depth cooperation in the field of intelligent cockpit, jointly create overall product solutions based on the HiCar platform, and provide intelligent cockpit products and solutions with ultimate customer experience, so as to accelerate the pace towards the "3rd living space". The mass-produced vehicle models equipped with cooperative products are already under development. In October 2022, we set up a strategic partnership with Taihang Changqing Automobile Safety System (Suzhou) Co., Ltd. (太航常青汽车安全系统(苏州)股份有限公司) for expanded cooperation in the gas generator field.

In addition, we also committed to promoting the industry progress and development by actively participating in various summits and forums in the industry. In 2022, Automotive Electronics Preh participated in the Third Automotive Display Summit Forum (第三届汽车车载显示盖板及光学贴合高峰会) and the Fourth Automotive Smart Interior Ambient Light Summit Forum (第四届汽车智能内饰氛围灯高峰会). Automotive Electronics Joynext (Ningbo Joynext Technology Co., Ltd.) became the Fifth Vice Chairman Entity Member of Ningbo Electronics Industry Association. Automotive Safety BU participated 17 conferences, such as the 14th and 15th ADAS Task Force sessions, and the Intelligent Connected Vehicle Testing and Evaluation Technology Forum & Release Conference on Intelligent Driving Evaluation Results (智能网联汽车测评技术论坛暨智能驾驶测评成果发布会).

## 4.1 Quality First

### Green Products

We are committed to promoting new products that are highly reliable, energy-saving and environment-friendly. We also include environmental considerations into the product development stage, and ESG considerations such as energy saving and material recycling into design and production.

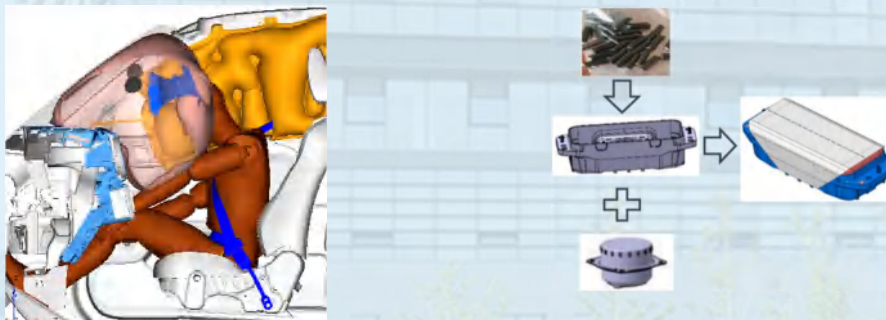
#### ➤ Adopt more environmentally friendly materials:

##### Case: Environmentally friendly paint and electroplating process

We take into account the environmental protection needs in the product surface decoration design to minimise the pollutant emission during the process. For example, water-based paint, which is environmentally friendly, non-toxic and pollution-free, is more used in the paint process. And in the electroplating process, hexavalent chromium is replaced with trivalent chromium to reduce toxicity and increase safety.

##### Case: Hybrid passenger airbag

We adopt a shell made of low-molecular-weight raw materials with lower carbon emissions in the development of hybrid passenger airbag, which is designed with a lightweight structure (weight reduced by 20-30%). The airbag is also equipped with a hybrid generator and biodegradable airbag fabric to achieve cost reduction and environmental benefits.



#### ➤ Energy and material saving design concept:

##### Case: Intelligent surfaces

We replace mechanical keys with intelligent surfaces, which are of lighter weight and less consumables. The declining quantity of structural parts used also contributes to the reduction in moulds and energy consumed by related manufacturing machinery.



## 4.1 Quality First

### 4.1.2 Quality Control

Improving product quality and safety is one of the key elements to achieve stable business operation. In order to avoid risks and reputational damage caused by product quality and safety, and to enhance the sustainability of our business, we follow the *Product Quality Law of the People's Republic of China*, the *Regulations of the People's Republic of China on Certification and Accreditation*, the *Implementation Rules for Compulsory Product Certification*, and other regulations for different businesses and operating locations. We maintain and improve our overall quality management system based on ISO 9001 and IATF 16949 quality management and ensure that we meet our customers' quality management requirements. As of the end of the Reporting Period, almost 100% of Joyson Electronics' operating sites had achieved IATF 16949 QMS certification.

<p><b>System implementation</b></p>	<ul style="list-style-type: none"> <li>➤ We have developed the “Inspection Instruction of Incoming Process”, “Change Management Process”, “Control of Non-conforming Products”, “Product Analysis Process”, “After Sales Management Procedure”, “Targets and Objects”, “Quality Assurance” and other related systems to regulate the daily quality control work.</li> </ul>
<p><b>Tight control of processes</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Concept promotion:</b> We embed the concept of quality control into all stages of production operations, covering all stages of product APQP (Advance Product Quality Planning), incoming material inspection, production quality control, and many other aspects such as error prevention and product experimental verification.</li> <li>➤ <b>Supply control<sup>1</sup>:</b> We place emphasis on quality management at the supply chain end and seek to ensure that suppliers understand our requirements in terms of quality. To this end we communicate quality expectations by issuing supplier manuals, signing QAA quality assurance agreements with suppliers, and holding supplier conferences. At the same time, we carry out rigorous audits of suppliers, including quality aspects, at various stages of the process, including potential supplier selection and approval, project contracting, monitoring during the project and annual inspection, and ensure that their performance can be effectively monitored through occasional unannounced audits; we carry out compliance checks on the product reports provided by suppliers; we sample different materials to ensure the stability of product quality and adjust the frequency of inspections based on the physical quality of the products.</li> <li>➤ <b>Intelligent equipment:</b> We use equipment that is leading in overall automation, to accomplish high quality inspection work. For example, the production line equipment is equipped with full inspection function, and the error-proof mechanism of the equipment can ensure that the product can achieve a series of actions such as error identification, stopping operation and activating alarm when any process error occurs; the final inspection machine can also carry out various testing items such as dormant current, operating current, voltage detection, knob function and torque related testing, key force function and related testing, etc., so as to complete the quality inspection work in a highly intelligent mode; the full online MES system is equipped with anti-mixing function and anti-leakage process, which greatly improves the production accuracy and enhances the stability of product quality.</li> </ul>

(see next page)

[1] Quality management of the supply chain can also be found in the section "Ensuring Steady Supply" of this Report.

# 4.1 Quality First

<p><b>Tight control of processes</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Safeguards:</b> In the product design and development stage, we carefully understand customers' requirements and the relevant legal and regulatory requirements, develop methods for product failure models analysis, develop response measures based on such failure modes, formulate quality control plans, and plan for the subsequent quality monitoring process. We also use equipment for error prevention, to reduce the occurrence of quality deficiency and safety incidents. Our quality control consists of two parts, namely product quality control and process quality control. Product quality control includes incoming material inspection, in-process inspection, and final inspection. Process quality control generally refers to our internal and external quality audits. We appoint well-known third-party certification agents to conduct annual quality audit on a yearly basis.</li> </ul>
<p><b>Quality inspection scope</b></p>	<ul style="list-style-type: none"> <li>➤ The quality inspection scope may vary for different types of product. In general, quality inspection scope is based on customers' requirements, yet products identified as quality risks during internal technical evaluation and analysis are also subject to control tests and inspections.</li> </ul>
<p><b>Indicator driven</b></p>	<ul style="list-style-type: none"> <li>➤ We adhere to a quality indicator-driven form of management and put relevant initiatives into practice in real terms. We set global quality targets at the beginning of the year, including failure rates, external quality cost control and the total number of written complaints from customers, and then break them down into regions, factories, departments and teams, with targets being raised at every level to ensure that the final quality targets are met.</li> </ul>
<p><b>Awareness raising</b></p>	<ul style="list-style-type: none"> <li>➤ We are committed to communicating and sharing quality-related good practices, and each BU combines its own practices in various formats such as monthly global quality conferences, quality weeks, quality seminars, etc. to exchange and discuss various quality-related topics such as customer quality evaluation, laboratory quality, quality process systems, etc.</li> <li>➤ In 2022, we are actively organising quality month activities in various locations, in the form of promotions, competitions and competitions combined with seminars, inviting many departments such as R&amp;D, logistics and production to conduct in-depth discussions on product and process quality. During the Quality Month activities of the Automotive Electronics BU, colleagues in the Quality Department also published a "Quality Knowledge Manual" to promote the concept of quality in conjunction with the production practices of each department.</li> <li>➤ We attach great importance to the quality publicity, and regard it as a necessary training content for new employees, all production employees and other employees in departments highly related to quality and safety. The training covers many quality topics such as quality requirements, commitment to quality and compliance, product safety law basics and product liability (local rules), quality escalation processes, defective product handling processes and the "three no's principle" (no non-conforming product received, no non-conforming product made, no non-conforming product sold), and is combined with follow-up assessments as needed to ensure the effectiveness of the training. In addition, we collate quality issues and risk points into a knowledge base and provide education to our staff.</li> </ul>

(see next page)



# 4.1 Quality First

<p><b>Product warranty and recall</b></p>	<ul style="list-style-type: none"> <li>➤ We follow the requirements of different systems such as the “Defective Vehicle Product Recall Management Regulations” and the “After-sales Management Procedures” according to the different attributes of the business, properly handle the returned defective parts, mark and sort them in the designated area to avoid secondary damage and not to enter the production process again, and have the relevant personnel complete the analysis of the returned parts and follow up the solutions.</li> <li>➤ Our products strictly comply with the three-guarantee policy, and according to the different characteristics of the products of each BU, the warranty period for key components can be extended to a certain extent, even the same as that for the whole vehicle.</li> </ul>
<p><b>Audit follow-up</b></p>	<ul style="list-style-type: none"> <li>➤ While we continue to improve our own quality management, we also actively welcome quality audits from our clients. In 2022, factories worldwide cooperated with customers and completed 119 quality audits.</li> </ul>



IATF 16949:2016 Certificate obtained example Joyson Electronics

## 4.1 Quality First

### Case: Quality Month activities

In November 2022, we held a series of Quality Month activities themed with “Quality - Inspection, Disputation and Modification”.

**Expert inspectors with keen eyesight:** We held skills competitions for blue-collar employees, aiming to enhance their inspection awareness and capabilities in various positions and sites, and ensure high product quality. The competition in 2022 was upgraded to a record-breaking challenge, which was designed to promote the spirit of striving for excellence and ongoing learning among blue-collar employees, and encourage them to challenge their past performance by breaking existing records. More than 100 staff members participated in the competition in 2022;

**Fluent debaters solving quality puzzles:** We held a debate competition for white-collar workers on controversial issues related to quality costs, which helped engage business units and employees in the discussion on the hottest topics around quality. Contestants of various identities and positions explored the connotation of quality and the meaning of cooperation during their collisions. As the saying goes, truth comes out during rounds of disputations. The competition tapped into an in-depth thinking and awareness around quality during the heated but amusing clashing on various topics among four participating teams.

**Co-efforts for improvement:** We held a quality forum for management to discuss daily quality challenges facing us, and for employees’ communications and brainstorms around quality issues. The topic discussed at the forum include disputes with suppliers on dimensions, quality accountability mechanism, reward and disciplinary mechanism, process improvement, product development difficulties, etc. During the forum, each participating team was given a certain amount of symbolic gold coins by the judges in favour of its solutions, and the team with the greatest number of coins (best performer) became the winner and was awarded as the Top Rich on Intelligent Wealth Ranking.



Local Quality Month Activities

## 4.2 Customer Services

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We have been putting the interests of customers first and optimizing the customer experience with continuous improvement of our products, service processes and systems.

In order to standardize the processes related to sales and customer service, we have developed a series of systems including “Customer Satisfaction Confirmation Control Procedures”, “Customer Property Management Control Procedure”, “Sales Process Procedure”, “Product Quotation Review Procedure” according to the different business attributes of each business division to strengthen the guidance and supervision of all aspects of sales and customer service.

To further understand customers' demands and expectations, find opportunities, and achieve both customer experience and business value, we conduct customer satisfaction surveys to obtain and evaluate customers' evaluations. For example, the Automotive Electronics BU conducts satisfaction surveys covering all customers at a frequency of once a year, focusing on the four major aspects of business, logistics, quality and engineering services, in addition to annual customer strategy analysis and additional collection of customer feedback in order to continuously meet customer needs. To continuously improve the quality of customer service, we set customer satisfaction targets and reflect customer satisfaction indicators in the KPI of relevant departments to facilitate regular evaluation and inspection.

We have always been paying close attention to regular and irregular inquiries from our customers and have been gradually implementing relevant initiatives as requested by our customers to facilitate the sustainable development along the entire value chain. During the Reporting Period, Automotive Electronics Preh received a total of 53 ESG-related inquiries from customers.

We receive and take seriously any form of feedback or complaints from customers through various channels. When we receive complaints from customers, we respond quickly and follow the internal processing procedure such as “Customer

Complaint Handling Management Procedures”, “Customer Complaint Management Procedures”, “Field Failure Analysis Procedures”, “Rapid Response Tracking Procedures”, etc. in accordance with customer requirements, prescribed methods and feedback cycles, and provide timely feedback for strict implementation; for common customer feedback, the Quality Department will also take the lead in collecting, summarizing, giving feedback, sharing and following up for improvement. In 2022, our response rate for customer complaints was 100%.

To further improve the efficiency in handling customer complaints and ensure that problems can be effectively solved in a short time, Automotive Safety BU has implemented the 2/4/8 principle and the JQTS system (Quality Notification) to quickly respond to customer needs. It also stipulates that anyone having received customer complaints in each stage shall immediately inform the project leader, who needs to form a problem-solving team, escalate and report within 24 hours based on the severity of the problem after assessment, and continues to follow up until the case is closed. For customer complaints in the mass production stage, personnel shall be arranged to arrive at the customer's site within 2 hours to confirm the problems and develop effective containment measures within 24 hours to ensure the proper operation of customer's production lines, as well as interim solutions within 48 hours to improve customer satisfaction.

In order to strengthen communication and management, continuously standardize the handling process of quality problems. The Automotive Safety BU has also developed a “daily quick response meeting” system, that is, a meeting around 10-30 minutes is held every day to focus on major quality problems happened in last 24 hours including client quality problems, internal audit problems, supplier quality problems, process quality problems, etc. And we issue a “quality defect warning card” to the production station and the associated effective inspection station within 24 hours to ensure the training of relevant personnel, follow-up problem tracking, closure, and high-risk control, so as to realize rapid response, timely sorting, continuous tracking and effective control of quality problems.

## 4.3 Ensuring Steady Supply

Supply chain is a core component of our daily operations. We are committed to implementing responsible production practices and building a sustainable supply chain system by deepening supply chain management, strengthening quality and safety control, and promoting environmental protection concepts in order to and build a diverse supplier base, while continuing to promote a low-carbon transformation of the supply chain.

### 4.3.1 Supply Chain Management System

As for supplier management, all of our business units have developed relevant supply chain procurement mechanisms, covering the entire supplier management lifecycle consisting of supplier inspection, supplier admission, supplier performance, supplier audit, and supplier exit, with ESG concept being integrated into each stage of procurement. Based on the actual operations of various business units, we have formulated multiple internal supplier management systems, such as the “Mechanism for Procurement of Products from Suppliers”, the “Control Procedures for Procurement and Supplier Management”, the “Confidentiality and Procurement Agreement Process”, and the “Procurement Terms and Conditions”. We have also classified suppliers into different categories by grade and type to form a multi-dimensional management hierarchy and introduced in a differentiated mechanism for supplier management, aiming to forge a first-class supplier network in line with our sustainable development concept.

## 4.3 Ensuring Steady Supply

<b>Management structure</b>	<p>We have developed a refined management model based on a sound organisational structure to ensure full coverage of the overall process from procurement strategy formulation, to supplier identification, supplier quality control, mass production management and vendor supply, and link ESG factors to management performance to better implement ESG practices for the supply chain.</p>
<b>Tiered management</b>	<p>We adopt a tiered and classification management mechanism for suppliers and customise different standardised access and evaluation processes for different suppliers to strengthen risk management and improve procurement efficiency by taking into account our own risk control requirements.</p>
<b>Supplier admission</b>	<ul style="list-style-type: none"> <li>• We conduct analysis and evaluation for potential suppliers of all types by strictly following the standard audit process of VDA. In formulating the potential supplier analysis and evaluation questionnaire, we not only consider process-related elements such as project management, planning and implementation of product and process development, supplier management, process analysis / production and customer care, but also incorporate into our comprehensive consideration the ESG-related factors such as environmental protection, occupational health and safety, forced labour, child labour and responsible supply chain. Suppliers using child labour or being blacklisted due to environmental protection issues are denied admission.</li> <li>• We focus on suppliers' environmental compliance and their performance in other aspects, and consider the environmental certificates or testing requirements such as environmental impact assessment reports, emission permit certificates, and ISO 14001 and ISO 45001 certificates in supplier admission. The validity of the certificates is registered in the supplier system and checked monthly by dedicated personnel.</li> <li>• To strengthen our supply chain management, we have signed the Supplier Code of Conduct with our suppliers to ensure that they understand and are aware of our expectations with respect to respecting human rights, protecting data security, ensuring product safety, reducing environmental impact, anti-corruption and anti-unfair competition.</li> </ul>
<b>Supplier evaluation and audit</b>	<ul style="list-style-type: none"> <li>• We conduct annual supplier assessments by way of sampling to evaluate and follow up on the implementation of quality assurance and customer service assurance. Each business unit has its own frequency for supplier audit. For example, Automotive Electronics Preh makes it an annual routine to audit suppliers subject to special requirements, and ensures that each supplier will be audited at least once within a 5-year rotation. Automotive Safety BU has a higher audit frequency, by auditing all suppliers once every 3 years, and auditing specially concerned suppliers once each year.</li> <li>• We combine the operational work of the division with the actual, conducting monthly and semi-annual evaluations of relevant assessment items including the performance of quality and delivery capability of suppliers in light of business units' actual operations to ensure effective tracking of supplier performance.</li> </ul>

(See next page)

## 4.3 Ensuring Steady Supply

### Communication with suppliers

- We conduct training and tutoring activities for suppliers on an irregular basis, to address common issues by stipulating specified requirements, and urging suppliers to adopt the best industry practices by incorporating sustainability into their business strategies, so as to reduce their business risks and improve their operation efficiency.
- We hope to enhance partnership with suppliers through diversified forms of communication using multiple channels. In addition to irregular communication, we also arrange special activities such as supplier conferences, which involve the submission of supplier EHS evaluation reports and special discussions. These activities help to raise the awareness of all parties on risk control, in addition to strengthening supplier management.



Supplier training

We focus on a global business deployment, and actively promote a localised procurement strategy to support the development of local enterprises and enhance our supply chain resilience. Taking Automotive Safety BU (China) for example, during the Reporting Period, suppliers in Mainland China accounted for 89% of the total procurement amount, while suppliers in Hong Kong, Macau, Taiwan and overseas regions accounted for 11% of the total procurement amount. As assessed, no ESG-associated significant risks were identified, and no suppliers were terminated due to significant environmental or social risks.

We are committed to becoming an industry leader with premium product quality and sound safety control, and to strictly implementing our quality and safety concepts and requirements in our supply chain management practices. Currently, Automotive Safety BU has made IATF 16949 certification a requirement for admission of direct materials suppliers, and communicates quality requirements in the form of supplier quality manuals and quality agreements. In 2022, Automotive Safety BU (China) conducted performance improvement activities for 31 selected suppliers, 21 of which finally saw a significant performance uplift.

## 4.3 Ensuring Steady Supply

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### 4.3.2 Green Procurement

We strive to minimise supply chain risks by incorporating ESG factors into supplier training activities, and focus on empowering suppliers to achieve greener, lower carbon operations. In terms of environmental impacts of materials, directives / regulations on controlling ELV, REACH and other hazardous substances and chemicals for the automotive industry have been fully applied in the industrial chain. We leverage IMDS and CAMDS data collection and declaration tools to declare the material substances used, to further ensure the compliance of our suppliers and material substances with customer requirements and the corresponding regulations. Taking Automotive Electronics Preh for example, during the Reporting Period, the percentage of suppliers passing the CSR evaluation was 100%, with 20 sustainable development training sessions held in 2022.

Meanwhile, we are constantly exploring and adopting domestic and overseas leading practices related to green production, such as plant renovation and upgrading, production equipment replacement, and are willing to conduct regular and occasional exchanges and sharing with suppliers to promote the green and low carbon development of the industrial chain. We continue to explore new models for cooperation with suppliers and to sustain a healthy, win-win and stable partnership. We also assist suppliers in multiple green production projects, such as photovoltaic power generation and full auto building control system, etc. We also encourage our supply chain partners to obtain certifications related to environmental protection and safe production. In addition, for suppliers with equivalent qualifications, we prefer to select those offering environmentally friendly products.

## 4.4 Public Welfare

We shoulder our social responsibilities and continue to make efforts in the fields of community prosperity, education assistance and public health, by integrating the strength of individuals, enterprises and industries into various activities to extend our love and care. During the Reporting Period, we continued our investments in the community public welfare undertakings, and donated over CNY 0.77 million for charity purpose.

### 4.4.1 Community Prosperity

#### Joyson TALKs

We founded the “Joyson TALKs” project in 2018, aiming to forge a cultural brand delivering our philosophy of inclusiveness and diversity, while empowering our employees to make progress via participating in enriched cultural activities. “Joyson TALKs” regularly invites influential industry celebrities, tech leaders and enterprise executives to deliver themed speeches, and conduct on-site exchanges with Joyson employees, or teachers and students in campus. The lectures focus on four topics: technology frontier, knowledge sharing, diversified quality life and self-driven action change.

Since 2018, more than 30 “Joyson TALKs” lectures have been held, and the distinguished guests included academicians, doctors, tech leaders, industry celebrities, field experts and enterprise executives, etc. In 2022, a total of 5 “Joyson TALKs” lectures were held for employees in Ningbo and Shanghai headquarters, which attracted 500 participants.



“Joyson TALKs” Activity Site



## 4.4 Public Welfare

### Joyson Open Day

Joyson Open Day is designed to increase the community's understanding of Joyson and our products to all sectors of the community through immersive experiences during their site visits. Joyson Open Day activities are held at various sites on fixed dates or on an occasional basis, for different types of external stakeholders, mainly including pupils, middle school students, college students, overseas students, as well as visitors from government departments and enterprises. In 2022, we held multiple Joyson Open Day activities to promote the employment of college students by appealing them to return to their domicile places and help construct their hometowns. For example, we cooperated with Zhejiang University and opened our sites for visits during vacations by college students (including freshmen, sophomores, juniors, postgraduates, etc.) of Ningbo origin or willing to work in Ningbo as organised by Ningbo Talents Service Centre (宁波市人才服务中心), aiming to enhance their understanding of our business culture, employment philosophy and infrastructure environments.

In 2022, more than 60 Joyson Open Day activities were held, attracting over 3,000 external stakeholders for site visits.



Joyson Open Day

## 4.4 Public Welfare

### 4.4.2 Education Assistance

#### Joyson Scholarship

We have always been supporting the development of education in local communities, and have co-established the “Joyson Scholarship” in Ningbo with the education authorities in Ningbo National Hi-Tech Zone (宁波国家高新区), as a move to recognise the contributions made by outstanding teachers serving primary and secondary schools for over 10 years in local communities. In 2022, a total of 25 diligent teachers were granted with “Joyson Talent Cultivation Award”, which delivered respects to teachers and showcased our solemn attitude to education. We also worked with the education authorities in Ningbo National Hi-Tech Zone to set up the “Joyson Award for Academic Excellence”, to award 20 to 40 students each year for their top performance. And in 2022, a total of 20 outstanding students were received such an award.

#### “Portrait of Ningbo” - Children Drawing Competition

In 2022, we co-organised the “Portrait of Ningbo” activities with the education authorities in the local community, and selected 45 painting works and 21 calligraphy works from 300+ children around the neighbourhood, to make a delicate album consisting of children's glimpses of Ningbo.



Children Drawing Competition

## 4.4 Public Welfare

### Book Donations

We take initiative to cooperate with education authorities and schools in local communities to establish “Joyson. Reading Bar” in schools, which are open for free use by students there. We also make quarterly book donations to these reading bars to empower kids in preparation for a bright future. During the Reporting Period, we opened another “Joyson. Reading Bar” in Xinmao Primary School in Ningbo National Hi-Tech Zone, and planned to further expand the coverage with new openings in Foreign Language School (primary school) and other schools in the Zone. Since 2016, we made 7 donations of books worth CNY30,000 in total.



Book Donations

# Appendix

## ESG Performance Indicator Table

Metrics	Unit	2022
<b>Environmental Performance</b>		
<b>Green House Gas emission</b>		
Total GHG emissions (only include Scope 1 and 2)	tCO <sub>2</sub> e	202,548.61
GHG emission density (based on the revenue)	tCO <sub>2</sub> e/million CNY	4.06
Direct GHG emission (Scope 1)	tCO <sub>2</sub> e	43,669.50
Indirect GHG emission (Scope 2)	tCO <sub>2</sub> e	158,879.11
Other Indirect GHG emission (Scope 3)	tCO <sub>2</sub> e	14,680.00
<b>Energy consumption</b>		
Comprehensive energy consumption	MWh	593,430
Comprehensive energy consumption density (based on the revenue)	MWh/million CNY	11.92
Electricity	MWh	348,543.56
Natural gas	0'000 m <sup>3</sup>	2,068.30
Diesel oil	0'000 L	54.90
Gasoline	0'000 L	4.97
Liquefied Petroleum Gas	0'000 L	25.14
Heat	MJ	13,881.19
<b>New energy usage</b>		
Energy from renewable sources	MWh	63,112.6
Photovoltaic power	MWh	7,613.39
<b>Pollution discharge</b>		
Total waste	Metric tons	1,786,970.03
Hazardous waste	Metric tons	995,478.66
Non-hazardous waste	Metric tons	791,491.37
Wastewater	0'000 tons	153.46
Environmental Investment	0'000 CNY	4,328.49

(see next page)

# Appendix

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## ESG Performance Indicator Table

Metrics	Unit	2022
<b>Social Performance</b>		
Total employees	Persons	44,391
Work-related fatalities of employees	-	0
Percentage in Business Ethics Training	%	100
Safety Investment	0'000 CNY	7,600
R&D Investment	0'000 CNY	303,387

# Appendix

## GRI Standards Index

Issues	GRI Standards	Disclosures	Report content/remarks	Issues	GRI Standards	Disclosures	Report content/remarks
General Disclosures				Stakeholder engagement	102-40	List of stakeholder groups	Stakeholder Communication
Organizational profile	102-1	Name of the organization	About Joyson Electronics		102-41	Collective bargaining agreements	Employment Standards
	102-2	Activities, brands, products, and services	About Joyson Electronics		102-42	Identifying and selecting stakeholders	Stakeholder Communication
	102-3	Location of headquarters	About Joyson Electronics		102-43	Approach to stakeholder engagement	Stakeholder Communication
	102-4	Location of operations	About Joyson Electronics		102-44	Key topics and concerns raised	Materiality Assessment for ESG Topics
	102-5	Ownership and legal form	Limited Liability Company (Listed)		102-45	Entities included in the consolidated financial statements	About this Report
	102-6	Markets served	Core business	102-46	Defining report content and topic boundaries	About this Report Materiality Assessment for ESG Topics	
	102-7	Scale of the organization	About Joyson electronics Employment Standards	102-47	List of material topics	Materiality Assessment for ESG Topics	
	102-8	Information on employees and other workers	Employment Standards	102-48	Restatements of information	Not Applicable	
	102-9	Supply chain	Ensuring Steady Supply Chain	102-49	Changes in reporting	No obvious changes	
	102-10	Significant changes to the organization and its supply chain	Not Applicable	102-50	Reporting period	About this Report	
	102-11	Precautionary Principle or approach	Energy Conservation, Emissions Reduction and Clean Production Addressing Climate Change Health and Safety	102-51	Date of most recent report	2022.04	
	102-12	External initiatives	Not Applicable	102-52	Reporting cycle	About this Report	
	Strategy	102-13	Membership of associations	Quality First	102-53	Contact point for questions regarding the report	About this Report
102-14		Statement from senior decision-maker	Message from the Chairman	102-54	Claims of reporting in accordance with the GRI Standards	About this Report	
Ethics and integrity	102-16	Values, principles, standards, and norms of behavior	Vision, Mission and Core Values	102-55	GRI content index	Index	
Governance	102-18	Governance structure	Corporate Governance ESG Governance	102-56	External assurance	Not Applicable	

# Appendix

## GRI Standards Index

Issues	GRI Standards	Disclosures	Report content/remarks	Issues	GRI Standards	Disclosures	Report content/remarks
Topic Specific Standards							
Economic Issues							
Economic Performance	103-1	Explanation of the material topic and its Boundary	Compliance Governance	Procurement Practices	103-1	Explanation of the material topic and its Boundary	Ensuring Steady Supply
	103-2	The management approach and its components	Compliance Governance		103-2	The management approach and its components	Ensuring Steady Supply
	103-3	Evaluation of the management approach	Compliance Governance		103-3	Evaluation of the management approach	Ensuring Steady Supply
	201-1	Direct economic value generated and distributed	Please refer to 2022 Annual Report		204-1	Proportion of spending on local suppliers	Ensuring Steady Supply
	201-2	Financial implications and other risks and opportunities due to climate change	Addressing Climate Change	Anti-corruption	103-1	Explanation of the material topic and its Boundary	Business Ethics
	201-3	Defined benefit plan obligations and other retirement plans	Continuous improvement and complement		103-2	The management approach and its components	Business Ethics
	201-4	Financial assistance received from government	Continuous improvement and complement		103-3	Evaluation of the management approach	Business Ethics
			205-1		Operations assessed for risks related to corruption	Business Ethics	
Market Presence	103-1	Explanation of the material topic and its Boundary	Continuous improvement and complement	205-2	Communication and training about anti-corruption policies and procedures	Business Ethics	
	103-2	The management approach and its components	Continuous improvement and complement	205-3	Confirmed incidents of corruption and actions taken	Business Ethics	
	103-3	Evaluation of the management approach	Continuous improvement and complement	Anti-competitive Behavior	103-1	Explanation of the material topic and its Boundary	Business Ethics
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Continuous improvement and complement		103-2	The management approach and its components	Business Ethics
	202-2	Proportion of senior management hired from the local community	Continuous improvement and complement		103-3	Evaluation of the management approach	Business Ethics
Indirect Economic Impacts	103-1	Explanation of the material topic and its Boundary	Continuous improvement and complement	Tax	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Business Ethics
	103-2	The management approach and its components	Continuous improvement and complement		207-1	Approach to tax	Compliance Governance
	103-3	Evaluation of the management approach	Continuous improvement and complement		207-2	Tax governance, control, and risk management	Compliance Governance
	203-1	Infrastructure investments and services supported	Continuous improvement and complement		207-3	Stakeholder engagement and management of concerns related to tax	Compliance Governance
	203-2	Significant indirect economic impacts	Continuous improvement and complement	207-4	Country-by-country reporting	Continuous improvement and complement	

# Appendix

## GRI Standards Index

Issues	GRI Standards	Disclosures	Report content/remarks	Issues	GRI Standards	Disclosures	Report content/remarks
Environmental Issues							
Materials	103-1	Explanation of the material topic and its Boundary	Energy Conservation, Emissions Reduction and Clean Production	Biodiversity	103-1	Explanation of the material topic and its Boundary	Biodiversity Protection
	103-2	The management approach and its components	Energy Conservation, Emissions Reduction and Clean Production		103-2	The management approach and its components	Biodiversity Protection
	103-3	Evaluation of the management approach	Energy Conservation, Emissions Reduction and Clean Production		103-3	Evaluation of the management approach	Biodiversity Protection
	301-1	Materials used by weight or volume	Energy Conservation, Emissions Reduction and Clean Production		304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Not Applicable
	301-2	Recycled input materials used	Continuous improvement and complement		304-2	Significant impacts of activities, products, and services on biodiversity	Not Applicable
	301-3	Reclaimed products and their packaging materials	Energy Conservation, Emissions Reduction and Clean Production		304-3	Habitats protected or restored	Not Applicable
					304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Not Applicable
Energy	103-1	Explanation of the material topic and its Boundary	Energy Conservation, Emissions Reduction and Clean Production	Emissions	103-1	Explanation of the material topic and its Boundary	Energy Conservation, Emissions Reduction and Clean Production
	103-2	The management approach and its components	Energy Conservation, Emissions Reduction and Clean Production		103-2	The management approach and its components	Energy Conservation, Emissions Reduction and Clean Production
	103-3	Evaluation of the management approach	Energy Conservation, Emissions Reduction and Clean Production		103-3	Evaluation of the management approach	Energy Conservation, Emissions Reduction and Clean Production
	302-1	Energy consumption within the organization	Energy Conservation, Emissions Reduction and Clean Production		305-1	Direct (Scope 1) GHG emissions	Energy Conservation, Emissions Reduction and Clean Production
	302-2	Energy consumption outside of the organization	Energy Conservation, Emissions Reduction and Clean Production		305-2	Energy indirect (Scope 2) GHG emissions	Energy Conservation, Emissions Reduction and Clean Production
	302-3	Energy intensity	Energy Conservation, Emissions Reduction and Clean Production		305-3	Other indirect (Scope 3) GHG emissions	Energy Conservation, Emissions Reduction and Clean Production
	302-4	Reduction of energy consumption	Energy Conservation, Emissions Reduction and Clean Production		305-4	GHG emissions intensity	Energy Conservation, Emissions Reduction and Clean Production
	302-5	Reductions of energy requirements of products and services	Continuous improvement and complement		305-5	Reduction of GHG emissions	Energy Conservation, Emissions Reduction and Clean Production
Water and Effluents	303-1	Interactions with water as a shared resource	Energy Conservation, Emissions Reduction and Clean Production	305-6	Emissions of ozone-depleting substances (ODS)	Continuous improvement and complement	
	303-2	Management of water discharge-related impacts	Energy Conservation, Emissions Reduction and Clean Production	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Continuous improvement and complement	
	303-3	Water withdrawal	Energy Conservation, Emissions Reduction and Clean Production				
	303-4	Water discharge	Energy Conservation, Emissions Reduction and Clean Production				
	303-5	Water consumption	Energy Conservation, Emissions Reduction and Clean Production				



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## GRI Standards Index

Issues	GRI Standards	Disclosures	Report content/remarks	Issues	GRI Standards	Disclosures	Report content/remarks
Waste	306-1	Waste generation and significant waste-related impacts	Wastes Management	Labor/ Management Relations	103-1	Explanation of the material topic and its Boundary	Employment Standards
	306-2	Management of significant waste-related impacts	Wastes Management		103-2	The management approach and its components	Employment Standards
	306-3	Waste generated	Wastes Management		103-3	Evaluation of the management approach	Employment Standards
	306-4	Waste diverted from disposal	Wastes Management		402-1	Minimum notice periods regarding operational changes	Continuous improvement and complement
	306-5	Waste diverted to disposal	Wastes Management		403-1	Occupational health and safety management system	Health and Safety
Environmental Compliance	103-1	Explanation of the material topic and its Boundary	Protecting the Planet	Occupational Health and Safety	403-2	Hazard identification, risk assessment, and incident investigation	Health and Safety
	103-2	The management approach and its components	Protecting the Planet		403-3	Occupational health services	Health and Safety
	103-3	Evaluation of the management approach	Protecting the Planet		403-4	Worker participation, consultation, and communication on occupational health and safety	Health and Safety
	307-1	Non-compliance with environmental laws and regulations	Protecting the Planet		403-5	Worker training on occupational health and safety	Health and Safety
Supplier Environmental Assessment	103-1	Explanation of the material topic and its Boundary	Ensuring Steady Supply		403-6	Promotion of worker health	Health and Safety
	103-2	The management approach and its components	Ensuring Steady Supply		403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Health and Safety
	103-3	Evaluation of the management approach	Ensuring Steady Supply		403-8	Worker covered by an occupational health and safety management system	Health and Safety
	308-1	New suppliers that were screened using environmental criteria	Ensuring Steady Supply		403-9	Work-related injuries	Health and Safety
	308-2	Negative environmental impacts in the supply chain and actions taken	Ensuring Steady Supply		403-10	Work-related ill health	Health and Safety
Social Issues					Training and Education	103-1	Explanation of the material topic and its Boundary
Employment	103-1	Explanation of the material topic and its Boundary	Employment Standards	103-2		The management approach and its components	Training and Development
	103-2	The management approach and its components	Employment Standards	103-3		Evaluation of the management approach	Training and Development
	103-3	Evaluation of the management approach	Employment Standards	404-1		Average hours of training per year per employee	Training and Development
	401-1	New employee hires and employee turnover	Employment Standards Loss rate Continuous improvement and complement	404-2		Programs for upgrading employee skills and transition assistance programs	Training and Development
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employment Standards Caring for our employee	404-3		Percentage of employees receiving regular performance and career development reviews	Training and Development
	401-3	Parental leave	Continuous improvement and complement				

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## GRI Standards Index

Issues	GRI Standards	Disclosures	Report content/remarks
Diversity and Equal Opportunity	103-1	Explanation of the material topic and its Boundary	Employment Standards
	103-2	The management approach and its components	Employment Standards
	103-3	Evaluation of the management approach	Employment Standards
	405-1	Diversity of governance bodies and employees	Employment Standards
	405-2	Ratio of basic salary and remuneration of women to men	Continuous improvement and complement
Non-discrimination	103-1	Explanation of the material topic and its Boundary	Employment Standards
	103-2	The management approach and its components	Employment Standards
	103-3	Evaluation of the management approach	Employment Standards
	406-1	Incidents of discrimination and corrective actions taken	Employment Standards
Freedom of Association and Collective Bargaining	103-1	Explanation of the material topic and its Boundary	Employment Standards
	103-2	The management approach and its components	Employment Standards
	103-3	Evaluation of the management approach	Employment Standards
	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Employment Standards Ensuring Steady Supply
Child Labor	103-1	Explanation of the material topic and its Boundary	Employment Standards
	103-2	The management approach and its components	Employment Standards
	103-3	Evaluation of the management approach	Employment Standards
	408-1	Operations and suppliers at significant risk for incidents of child labor	Employment Standards Ensuring Steady Supply
Forced or Compulsory Labor	103-1	Explanation of the material topic and its Boundary	Employment Standards
	103-2	The management approach and its components	Employment Standards
	103-3	Evaluation of the management approach	Employment Standards
	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Employment Standards Ensuring Steady Supply

Issues	GRI Standards	Disclosures	Report content/remarks
Security Practices	103-1	Explanation of the material topic and its Boundary	Not Applicable
	103-2	The management approach and its components	Not Applicable
	103-3	Evaluation of the management approach	Not Applicable
	410-1	Security personnel trained in human rights policies or procedures	Not Applicable
Rights of Indigenous Peoples	103-1	Explanation of the material topic and its Boundary	Not Applicable
	103-2	The management approach and its components	Not Applicable
	103-3	Evaluation of the management approach	Not Applicable
	411-1	Incidents of violations involving rights of indigenous peoples	Not Applicable
Human Rights Assessment	103-1	Explanation of the material topic and its Boundary	Continuous improvement and complement
	103-2	The management approach and its components	Continuous improvement and complement
	103-3	Evaluation of the management approach	Continuous improvement and complement
	412-1	Operations that have been subject to human rights reviews or impact assessments	Continuous improvement and complement
	412-2	Employee training on human rights policies or procedures	Continuous improvement and complement
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Continuous improvement and complement
	413-1	Operations with local community engagement, impact assessments, and development programs	Public Welfare
Local Communities	103-1	Explanation of the material topic and its Boundary	Public Welfare
	103-2	The management approach and its components	Public Welfare
	103-3	Evaluation of the management approach	Public Welfare
	413-1	Operations with local community engagement, impact assessments, and development programs	Public Welfare
	413-2	Operations with significant actual and potential negative impacts on local communities	Not Applicable

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## GRI Standards Index

Issues	GRI Standards	Disclosures	Report content/remarks
Supplier Social Assessment	103-1	Explanation of the material topic and its Boundary	Ensuring Steady Supply
	103-2	The management approach and its components	Ensuring Steady Supply
	103-3	Evaluation of the management approach	Ensuring Steady Supply
	414-1	New suppliers that were screened using social criteria	Ensuring Steady Supply
	414-2	Negative social impacts in the supply chain and actions taken	Ensuring Steady Supply
Public Policy	103-1	Explanation of the material topic and its Boundary	Not Applicable
	103-2	The management approach and its components	Not Applicable
	103-3	Evaluation of the management approach	Not Applicable
	415-1	Political contributions	Not Applicable
Customer Health and Safety	103-1	Explanation of the material topic and its Boundary	Quality First
	103-2	The management approach and its components	Quality First
	103-3	Evaluation of the management approach	Quality First
	416-1	Assessment of the health and safety impacts of product and service categories	Continuous improvement and complement
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	No Such Event Occurred
Marketing and Labeling	103-1	Explanation of the material topic and its Boundary	Not Applicable
	103-2	The management approach and its components	Not Applicable
	103-3	Evaluation of the management approach	Not Applicable
	417-1	Requirements for product and service information and labeling	Not Applicable
	417-2	Incidents of non-compliance concerning product and service information and labeling	Not Applicable
	417-3	Incidents of non-compliance concerning marketing communications	Not Applicable

Issues	GRI Standards	Disclosures	Report content/remarks
Customer Privacy	103-1	Explanation of the material topic and its Boundary	Compliance Governance
	103-2	The management approach and its components	Compliance Governance
	103-3	Evaluation of the management approach	Compliance Governance
	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No Such Event Occurred
Socioeconomic Compliance	103-1	Explanation of the material topic and its Boundary	Compliance Governance ESG Governance
	103-2	The management approach and its components	Compliance Governance ESG Governance
	103-3	Evaluation of the management approach	Compliance Governance ESG Governance
	419-1	Non-compliance with laws and regulations in the social and economic area	No Such Event Occurred

# Appendix

## CASS-ESG 5.0 Index

Dimension	Issue	Indicator no.	Indicator description	Where to disclose
Report Preface (P)	Reporting Standards (P1)	P1.1	Quality assurance	About The Report
		P1.2	Information description	About The Report
		P1.3	Reporting system	About The Report
	Message from Executive Management (P2)	P2.1	ESG status analysis and strategic considerations	Message from President
		P2.2	Annual ESG progress	Message from President
	Responsibility highlights (P3)	P3.1	Major ESG events of the year	Continuous improvement and complement
	Company Profile (P4)	P4.1	Basic information	About Joyson Electronics
		P4.2	Strategy and culture	About Joyson Electronics
		P4.3	Business overview	About Joyson Electronics
		P4.4	Significant changes during the reporting period regarding the Company's size, structure, ownership or supply chain	No significant changes
Governance (G)	Corporate Governance (G1)	G1.1	Board composition diversity	Compliance Governance
		G1.2	Board independence	Compliance Governance
		G1.3	Compliance system	Compliance Governance
		G1.4	Compliance training performance	Compliance Governance
		G1.5	Anti unfair competition	Compliance Governance
		G1.6	Complaint and reporting mechanism	Compliance Governance
		G1.7	Anti-commercial bribery and anti-corruption system	Compliance Governance
		G1.8	Anti-corruption training performance	Compliance Governance
		G1.9	Corruption incidents and responses	Compliance Governance
		G1.10	Information transparency	Compliance Governance
		G1.11	Incidents incurring penalties due to violation of information disclosure requirements	Compliance Governance
	Board & ESG Governance (G2)	G2.1	The Board's ESG management policy	ESG Governance
		G2.2	The Board's mechanism for ESG work and leadership	ESG Governance
		G2.3	The Board's identification of ESG risks and opportunities	ESG Governance
		G2.4	The Board's review of ESG goals	ESG Governance
		G2.5	Executive compensation linked to ESG performance	Continuous improvement and complement
	ESG Management (G3)	G3.1	Departments responsible for ESG work	ESG Governance
		G3.2	ESG strategy	ESG Governance
		G3.3	ESG work system	ESG Governance
		G3.4	Participation in ESG research or the development of ESG standards for the industry	Continuous improvement and complement
		G3.5	Identification of material ESG issues	Materiality Assessment for ESG Topics
G3.6		Communication with stakeholders	Stakeholder Communication	
G3.7		Channels for ESG information disclosure	About the report	
G3.8		System for ESG appraisal	Continuous improvement and complement	
G3.9		ESG training	Continuous improvement and complement	
G3.10		ESG training performance	Continuous improvement and complement	
G3.11	ESG awards	Awards		

# Appendix

## CASS-ESG 5.0 Index

Dimension	Issue	Indicator no.	Indicator description	Where to disclose
Environmental Risk Management (E)	Environmental Management (E1)	E1.1	Environmental management system	Protecting the Planet
		E1.2	Environmental management goals	Protecting the Planet
		E1.3	Investments in environmental protection	Protecting the Planet
		E1.4	Environmental warning and emergency mechanism	Protecting the Planet
		E1.5	Environmental assessment policy for new projects	Continuous improvement and complement
		E1.6	Environmental management system certification	Protecting the Planet
		E1.7	Environmental training and education	Protecting the Planet
		E1.8	Environment-friendly products or technology R&D and application	Quality First
		E1.9	Environmental violations and penalties	Protecting the Planet
	Resources Utilization (E2)	E2.1	Energy management system	Energy Conservation, Emissions Reduction and Clean Production
		E2.2	Energy consumption	Energy Conservation, Emissions Reduction and Clean Production
		E2.3	Energy consumption intensity	Energy Conservation, Emissions Reduction and Clean Production
		E2.4	Clean energy utilization policy	Energy Conservation, Emissions Reduction and Clean Production
		E2.5	Clean energy utilized	Energy Conservation, Emissions Reduction and Clean Production
		E2.6	Policies to reduce packaging materials used for finished goods	Energy Conservation, Emissions Reduction and Clean Production
		E2.7	Total packaging materials used for finished goods	Energy Conservation, Emissions Reduction and Clean Production
		E2.8	Percentage of recycled packaging materials used for finished products	Energy Conservation, Emissions Reduction and Clean Production
		E2.9	Water utilization policy	Energy Conservation, Emissions Reduction and Clean Production
		E2.10	Fresh water consumption	Energy Conservation, Emissions Reduction and Clean Production
		E2.11	Water consumption intensity	Continuous improvement and complement
		E2.12	Water saving	Continuous improvement and complement
		E2.13	Recycled water consumption	Continuous improvement and complement
		E2.14	Green office measures	Energy Conservation, Emissions Reduction and Clean Production
		E2.15	Green office performance	Energy Conservation, Emissions Reduction and Clean Production
	Emissions (E3)	E3.1	Policy to reduce wastewater discharge	Use of Resources
		E3.2	Wastewater discharge	Use of Resources
		E3.3	Policy to reduce exhaust gas emission	Exhaust Gas management
		E3.4	Exhaust gas emissions	Energy Conservation, Emissions Reduction and Clean Production
		E3.5	Waste discharge management policy	Wastes Management
		E3.6	General waste discharge	Energy Conservation, Emissions Reduction and Clean Production
		E3.7	General waste discharge intensity	Continuous improvement and complement
		E3.8	Hazardous waste discharge	Energy Conservation, Emissions Reduction and Clean Production
		E3.9	Hazardous waste discharge intensity	Continuous improvement and complement
		E3.10	Waste recycling and reuse performance	Energy Conservation, Emissions Reduction and Clean Production
	Ecological Safety Protection (E4)	E4.1	Impact of business operations on biodiversity and ecological system	Biodiversity Protection
E4.2		Biodiversity conservation actions	Biodiversity Protection	
E4.3		Ecological restoration governance	Biodiversity Protection	
Addressing Climate Change (E5)	E5.1	Governance mechanism to address climate-related risks and opportunities	Addressing Climate Change	
	E5.2	Impact of climate-related risks and opportunities on operations	Addressing Climate Change	
	E5.3	Climate-related risk management	Addressing Climate Change	
	E5.4	Targets and performance in relation to climate-related risks and opportunities	Addressing Climate Change	
	E5.5	Direct GHG emission	Energy Conservation, Emissions Reduction and Clean Production	
	E5.6	Indirect GHG emission	Energy Conservation, Emissions Reduction and Clean Production	
	E5.7	GHG emission intensity	Continuous improvement and complement	

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## CASS-ESG 5.0 Index

Dimension	Issue	Indicator no.	Indicator description	Where to disclose	
Social Risk Management (S)	Employment (S1)	S1.1	Compliance with labor law standards	Employment Standards	
		S1.2	Diversity and equal opportunity	Employment Standards	
		S1.3	Staff composition	Employment Standards	
		S1.4	Labor contract signup rate	Employment Standards	
		S1.5	Turnover rate	Continuous improvement and complement	
		S1.6	Democratic management	Employment Standards	
		S1.7	Remuneration and benefits system	Employment Standards	
		S1.8	Social security coverage	Continuous improvement and complement	
		S1.9	Average number of paid vacation days per person	Continuous improvement and complement	
		S1.10	Care for employees	Caring for our employee	
		S1.11	Employee satisfaction rate	Employment Standards	
	Development and Training (S2)	S2.1	Career development ladder	Training and Development	
		S2.2	Occupational training system	Training and Development	
		S2.3	Investments in occupational training	Training and Development	
		S2.4	Occupational training performance	Training and Development	
	Occupational Health and Production Safety (S3)	S3.1	Occupational health management	Health and Safety	
		S3.2	Occupational health and safety management system certification	Health and Safety	
		S3.3	Number of new occupational diseases	Continuous improvement and complement	
		S3.4	Production safety management system	Health and Safety	
		S3.5	Safety education, publicity and training	Health and Safety	
		S3.6	Potential risk inspection and rectification	Health and Safety	
		S3.7	Emergency management system	Health and Safety	
		S3.8	Investments in production safety	Health and Safety	
		S3.9	Production safety training performance	Health and Safety	
		S3.10	Number of accidents in production safety	Health and Safety	
		S3.11	Number of work-related injuries/deaths	Health and Safety	
		S3.12	Lost work days due to work injury	Health and Safety	
	Responsibilities to Customers (S4)	Issue	Indicator number	Indicator description	Where to disclose
			S4.1	Product/service quality management	Customer Services
			S4.2	First Pass Yield	Continuous improvement and complement
			S4.3	Responsible marketing	Continuous improvement and complement
			S4.4	Stop loss and compensation mechanism	Quality first
			S4.5	Active response to customer complaints	Customer Services
			S4.6	Information security and privacy protection	Business Ethics
			S4.7	Customer satisfaction	Customer Services
S4.8			Complaint resolution rate	Customer Services	
S4.9			Negative incidents related to customer health and safety during the reporting period	Continuous improvement and complement	
Responsible Supply Chain Management (S5)			S5.1	Supply chain ESG management system	Ensuring Steady Supply
			S5.2	Supplier ESG review and assessment	Ensuring Steady Supply
			S5.3	Number of suppliers reviewed	Ensuring Steady Supply
			S5.4	Number of suppliers subject to suspension of cooperation due to non-compliance	Ensuring Steady Supply
			S5.5	Number of potential suppliers rejected due to non-compliance	Ensuring Steady Supply
			S5.6	Supplier ESG training system	Ensuring Steady Supply
			S5.7	Supplier ESG training performance	Ensuring Steady Supply

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## CASS-ESG 5.0 Index

Dimension	Issue	Indicator no.	Indicator description	Where to disclose
Value creation (V)	Value to the Country (V1)	V1.1	Concepts and policies serving major national strategies	Continuous improvement and complement
		V1.2	Contribution to major national strategies	Continuous improvement and complement
		V1.3	Actions to serve major national strategies	Continuous improvement and complement
		V1.4	Achievements in serving major national strategies	Continuous improvement and complement
	Value to the Industry (V2)	V2.1	Institutional system of technological innovation	Quality First
		V2.2	Technological innovation actions and measures	Quality First
		V2.3	R&D investments	Quality First
		V2.4	Major achievements in technological innovation	Quality First
		V2.5	Coordinated development of upstream and downstream industrial chains	Quality First
		V2.6	Safety and stability of the industrial chain and supply chain	Ensuring Steady Supply
		V2.7	Participation in the development of industry standards	Quality First
		V2.8	Strategic cooperation mechanism and platform	Quality First
	Value to People's Livelihood (V3)	V3.1	Actions to boost employment	Community Prosperity
		V3.2	Number of new jobs created	Community Prosperity
		V3.3	Participation in infrastructure construction	Continuous improvement and complement
		V3.4	Community services	Public Welfare
		V3.5	Community services branding	Public Welfare
		V3.6	Total charitable donations	Public Welfare
		V3.7	Volunteering performance	Public Welfare
	Value to the Environment (V4)	V4.1	Carbon peak and carbon neutrality strategy and goals	Addressing Climate Change
V4.2		Carbon peak and carbon neutrality action plan and path	Addressing Climate Change	
V4.3		Carbon reduction effect	Addressing Climate Change	
V4.4		Actions to protect the environment and ecological system	Energy Conservation, Emissions Reduction and Clean Production	
V4.5		Progress and effect of protecting the environment and ecological system	Energy Conservation, Emissions Reduction and Clean Production	

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## CASS-ESG 5.0 Index

Dimension	Issue	Indicator no.	Indicator description	Where to disclose
Report Postscript		A1	Future plan	Continuous improvement and complement
		A2	KPIs	ESG Performance Indicator Table
		A3	Report evaluation	Not evaluated
		A4	Reference index	Appendix
		A5	Feedback	Continuous improvement and complement



# Appendix

## Glossary of Terms

Paraphrase		Paraphrase content
Company, the Company	refer to	Ningbo Joyson Electronic Corporation.
Joyson Electronic or we	refer to	Ningbo Joyson Electronic Corporation. and its subsidiaries
CSR&ESG Report or the Report	refer to	Joyson Electronics' Environmental, Social and Governance Report 2022
Automotive Electronics Preh	refer to	Automotive Electronics BU Subsidiary Preh
Automotive Electronics Joynext	refer to	Automotive Electronics BU Subsidiary Joynext
SSE	refer to	Shanghai Stock Exchange
The four new trends in automotive industry	refer to	Intelligentization, networking, electrification and sharing of the automotive industry
Automotive Safety BU	refer to	Joyson Safety Systems
KSS	refer to	KSS Holdings, Inc.
TS	refer to	TechniSat Digital GmbH
RTO	refer to	Regenerative Thermal Oxidizer
RCO	refer to	Regenerative Catalytic Oxidation
PCB	refer to	Printed Circuit Board
VOCs	refer to	Volatile Organic Compounds
TCFD	refer to	Task Force on Climate-related Financial Disclosures
APQP	refer to	Advanced Product Quality Planning
MES	refer to	Manufacturing execution system
VDA	refer to	Verband der Automobilindustrie
QAA	refer to	Quality Assurance Agreement
ELV	refer to	End-of-Life Vehicle
REACH	refer to	Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals
IMDS	refer to	International Material Data System
CAMDS	refer to	China Automotive Material Data System

# Appendix

## Awards

In recent years, our main accolades in terms of comprehensive strength of the enterprise are as follows:

Name of the Awards	Award Time	Awarding Organisation
2017-2019 Top 20 Local Private Multinational Companies in Zhejiang	2020	Department of Commerce of Zhejiang Province
2022 Auto Components Top 20 Ranking	2020	Brand Finance
Top 30 in the Top 100 Global Auto Parts Suppliers Ranking	2020	AUTOMOBILWOCHE
2020 Top 100 Chinese Auto Parts Enterprises	2020	China Automotive News
2020 Top 100 Most Competitive Electronic Information Enterprises	2020	China Information Technology Industry Federation
2020 Top 100 Most Competitive Software & IT Services Enterprises	2020	China Information Technology Industry Federation
2020 Top 30 Chinese EV Enterprises with Best Investment Value	2020	China EV100
2021 Top 50 Chinese Listed Companies by Brand Value Overseas	2021	National Business Daily, Tsinghua University
Top 30 China Auto Parts Industry Companies	2021	China Machinery Industry Federation, China Association of Automobile Manufacturers
2021 Top 100 Chinese Auto Parts Enterprises	2021	China Automotive News
2021 Top 100 Most Competitive Software & IT Services Enterprises	2021	China Information Technology Industry Federation
2021 Top 100 Most Competitive Electronic Information Enterprises	2021	China Information Technology Industry Federation
2021 Top 100 Players of China's New Automotive Supply Chain	2021	Gasgoo
Excellent Intelligent Vehicle Solution Provider	2021	China Automotive News
Top 100 Manufacturing Enterprises in Zhejiang Province	2022	Zhejiang Enterprise Confederation, Zhejiang Enterprise Directors Association, Zhejiang Federation of Industrial Economics
2022 Top 100 Enterprise of Electronic Information Competitiveness	2022	China Information Technology Industry Federation
Auto Components 20 2022 Ranking	2022	Brand Finance
Excellent Organisation with High-Quality Digital Economy Development in Zhejiang	2022	Zhejiang Provincial Department of Industry and Information Technology
2022 Top 100 Enterprise of Electronic Information Competitiveness	2022	China Information Technology Industry Federation

# Appendix

## Awards

In recent years, our major accolades in the area of human resources are as follows:

Name of the Awards/Honors	Award Winning Units	Award Time	Awarding Organization
Value Case Award of 2019 China Recruitment and Appointment Value Awards	Ningbo Joyson Electronic Corp.	2019	HR Excellence Center
Best Employer Branding Video Clip Award of 2019 Employer Branding Creativity Competition	Ningbo Joyson Electronic Corp.	2019	Wings& HRflag
Best Employer Brand Creative Copywriting Award of 2020 Employer Brand Creativity Awards	Ningbo Joyson Electronic Corp.	2020	EVP Research Institute
2020 Human Resource Management Excellence Awards	Ningbo Joyson Electronic Corp.	2020	51job
Employee Experience Innovation Award of 2021 Employer Brand Creativity Awards	Ningbo Joyson Electronic Corp.	2021	EVP Research Institute
2020 Human Resource Salon Best Human Practice Award	Ningbo Joynext Technology Co., Ltd.	2020	Human Resource Salon Organization
2021 Best Employers for Human Resource Digitalization	Ningbo Joynext Technology Co., Ltd.	2022	HRTech China

# Appendix

## Awards

In recent years, our major accolades in the area of innovation, products and services are as follows:

Name of the Awards	Associated Product	Winning Company	Award Time	Awarding Organisation
World Innovation Awards 2021 - Top 10 Innovative Technology Enterprises in China's Intelligent Cockpit Industry	Intelligent cockpit	Ningbo Joynext Technology Co., Ltd.	2021	Organization Committee of WIA 2021, Equal Ocean
Premium Supplier of Intelligent Cockpit Domain Controller	Intelligent cockpit	Ningbo Joynext Technology Co., Ltd.	2022	Gasgoo
2022 Top10 Chinese Suppliers of Premium Solutions for EV Digital Cockpit	Intelligent cockpit	Ningbo Joynext Technology Co., Ltd.	2022	Equal Ocean
2022 Top 100 Chinese Suppliers of Hardware & Software for Intelligent and Connected Vehicles	Intelligent connected products	Ningbo Joynext Technology Co., Ltd.	2022	Gao Gong
Nomination for PACE Awards	Suspension type knob central touch screen	Joyson Safety Systems, Preh	2021	Automotive News
2021 Lingxuan Awards - Outstanding Award in the Safety Mass Production Category	New type steering wheel with three-zone HOD system	Joyson Safety Systems	2021	Automotive Business Review
First Prize of CLEPA Innovation Award	Pyrotechnic Battery Disconnect (PBD)	Joyson Safety Systems	2021	European Association of Automotive Suppliers
2021 Lingxuan Awards - Gold Award in the Forward-Looking Category	SIU steering wheel integrated intelligent module	Joyson Safety Systems	2021	Automotive Business Review
2022 Lingxuan Awards - Outstanding Award in the Intelligent Driving Mass Production Category	5G+C-V2X technology	Ningbo Joynext Technology Co., Ltd.	2022	Automotive Business Review
2020 China's Benchmark Smart Factory	-	Ningbo Preh Joyson Automotive Electronics Co., Ltd.	2020	e-works
2022 the First Batch "Future Factory" Brands In Zhejiang Province	-	Ningbo Preh Joyson Automotive Electronics Co., Ltd.	2022	Zhejiang Provincial Department of Industry and Information Technology
Demonstration Enterprise for Intelligent Manufacturing of Electronic Auto Devices	-	Ningbo Preh Joyson Automotive Electronics Co., Ltd.	2022	Ministry of Industry and Information Technology
2021 Top 100 Global Auto Parts Suppliers	-	Joyson Safety Systems, Preh	2022	Automotive News
2022 Top 100 Global Auto Parts Suppliers	-	Joyson Safety Systems, Preh	2022	Automotive News