瑞聲科技控股有限公司
AAC TECHNOLOGIES HOLDINGS INC.

(Incorporated in the Cayman Islands with limited liability)
Stock Code: 02018

2018
SUSTAINABILITY
REPORT

瑞聲科技控股有限公司

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Human Capital

Intellectual Capital

Manufacturing Capital

Natural Capital

Social & Relationship Capital

More information can be found via this icon

About this Report

AAC Technologies Holdings Inc.'s (hereafter referred to as "AAC Technologies" or the "Company"), sixth stand-alone sustainability report presents a review of the Company's performance on environmental, social and governance ("ESG") issues. This report focuses on the ESG issues that have a material impact on the long-term success of the Company.

The Board of Directors acknowledges its responsibility for ensuring the integrity of the sustainability report and to the best of their knowledge, this report addresses all relevant material issues and fairly presents the ESG performance of the Company. The Board of Directors confirms that it has reviewed and approved the report.

Reporting Frameworks

This report has been prepared in accordance with the Core Option of the Global Reporting Initiative's ("GRI") Sustainability Reporting Standards and is in compliance with ESG Reporting Guide set out in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. For information relating to the group's strategy and governance practices, please refer to our annual report, available on our website.

The Company's sustainability management approach, where applicable, aligns with the Sustainable Development Goals (SDGs) and the 10 principles of the United Nations Global Compact. This report also draws on the International <IR> Framework of the International Integrated Reporting Council ("IIRC").

Report Boundary

The report covers the business operations of the Company located in Changzhou, Suzhou, Shuyang, Shenzhen and Vietnam, unless otherwise stated[1]. Our new facility in Changzhou and two new facilities in Shuyang commenced operation during the year and were included in the data collection boundary. There have been no significant changes to the Company's organisational structure and no significant restatements of data during the year.

Report Period

The reporting period is for the fiscal year ending 31 December 2018. It also includes activities from the past as well as more recent ones.

External Assurance

Hong Kong Quality Assurance Agency ("HKQAA") has provided independent external assurance for the disclosures made in this report. Please refer to page 54 for the verification statement.

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[1] Due to variations in legal requirements across regions where the Company operates, certain quantitative indicators have not yet been used for reporting ESG performance of some of our subsidiaries. The Company will continue to work diligently to ensure that these indicators are included in a single set of unified and standardised statistics in our future sustainability reports.

Feedback

The information and data collection and verification are currently done by various departments including investors relations, CSR and internal audit. We have established internal platform for summarizing data and information, conducting regular reviews on the data. Nevertheless, we recognize the potential shortcomings of our reporting process and strive to enhance our work on disclosure, including 1) identifying appropriate indicator for deriving intensity for environmental data, replacing the revenue indicator which is easily influenced by product price; 2) attempting to identify the unit of measurement for packaging materials to allow easier comparison.

We will not stop pursuing for comprehensive and accurate ESG data for our stakeholders. We welcome your thoughts and feedback on this report. Please address any queries and comments to our investor relations department at aac2018@aactechnologies.com. This report is published in English and Chinese. In case of any conflicts between the two versions, the English version shall prevail. As a conservation measure, we do not publish hard copies. PDF version is available on HKEX's website and on our website. 🔍

Our Policies

AAC Technologies keeps the Company's policies transparent to our valued stakeholders. Policies relevant to sustainability approach and corporate governance are available on our website under below section.

Policy	Company Website
Sustainability Policy	About AAC ▶ Sustainability ▶ Sustainability Policy 🔍
Code of Conduct	About AAC ▶ Company Profile ▶ Corporate Governance ▶ Corporate Compliance 🔍
Board Diversity Policy	About AAC ▶ Company Profile ▶ Corporate Governance ▶ Board 🔍
Whistle-Blowing Policy	About AAC ▶ Company Profile ▶ Corporate Governance ▶ Corporate Compliance 🔍
Corporate Disclosure Policy	About AAC ▶ Company Profile ▶ Corporate Governance ▶ Shareholders 🔍
Shareholders Communication Policy	About AAC ▶ Company Profile ▶ Corporate Governance ▶ Shareholders 🔍
Procedures for Shareholder to propose a person for election as a Director	About AAC ▶ Company Profile ▶ Corporate Governance ▶ Shareholders 🔍

Sustainability at AAC Technologies

In this Section:
About Us | CEO Message | Sustainability Approach

Listed on the Hang Seng Corporate Sustainability Index and Hang Seng (Mainland China and Hong Kong) Corporate Sustainability Index for 2018, the fifth consecutive year since 2014.

Received three Grand Awards in the Hong Kong ESG Reporting Awards (HERA) 2018: Best ESG Report – Large Cap, Excellence in GRI Report, and Innovative Frontrunner Award.

Received the "Best in Reporting – Certificate of Merit" accolade in the BDO ESG Awards 2019.

About Us

AAC Technologies Holdings Inc. is the world's leading solutions provider for smart devices. Our cutting-edge technologies in materials research, simulation, algorithms, design, automation and process development in Acoustics, Optics, Electromagnetic Drives and Precision Mechanics, MEMS, Radio Frequency and Antenna, enable us to develop advanced miniaturized proprietary technology solutions. Our goal is to "Lead Innovation & Enhance User Experience". In delivering high-performance and superior quality products, the Group will continue to create value for customers with innovative user experience.

Our Value Framework

At AAC Technologies, safety first, scientific management and sustainable development are our values which are at the core of every business decision we make. We strive hard to achieve a balance of good economic performance, environmental stewardship and corporate social responsibility that extends beyond our business operation.

Our key policies form the backbone of our value framework. Many of which can be found on our website. These core values will undergo regular review for their relevance.

- **Core Values**
  - Safety First
  - Scientific Management
  - Sustainable Development
- **Corporate Culture**
  - Professional
  - Open Minded
  - Compatible
- **Organisational Excellence**
  - Structure and Process
  - Discipline
  - Training and Appraisal / People Excellence

Our Worldwide Operation

AAC Technologies operates around the globe with research and development ("R&D") centers in China, Singapore, Japan, United States, Finland and Denmark, testing laboratories in Singapore and South Korea, manufacturing facilities in China, Vietnam and Philippines and sales offices optimally located in different parts of the world. Being the Asia Pacific regional headquarters, AAC Singapore plays a significant role in leading the R&D of RF and MEMS as well as the treasury functions of the Company.

R&D Centers

Finland
Turku
Tampere

Denmark
Copenhagen
Aalborg

United States
Irvine

Japan
Osaka

Korea
Suwon

China
Beijing
Changzhou
Nanjing
Shanghai
Shenzhen
Suzhou
Wuhan

Singapore

Revenue (million RMB)
18,131   -14.1% yoy

Net Profit (million RMB)
3,796   -28.7% yoy

Net Assets (million RMB)
18,934   +7.9% yoy
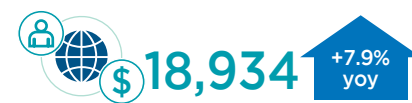
R&D Engineers & Technicians
3,982

Reinvested in R&D
8.3% of sales

Return on Equity
20.8%

AAC Technologies has been developing total solutions by cross-platforms core technologies and production know-how to optimize structure and functional performance, aiming to create synergies between our product segments. At 31 December 2018, the revenue distribution of our major product segments are as follow:

2018 Revenue Distribution

43%   5%   4%   48%

- Dynamic Components
- Electromagnetic Drives & Precision Mechanicals
- MEMS
- Other Products

Our Operation Model

Results

Customer Values
- Product Excellence
- Safe Operation
- Energy Efficiency
- Improve User Experience

Financial Performance & Return on Equity

Benefits to Society & the Environment

Businesses

Innovation & Technology

Product Platforms
- Acoustics
- Precision Mechanical
- Electromagnetic Drives
- Optics

Total Solutions Provider of Miniaturized Technology Components

Technology Platforms
- Core and Miniaturized Technology
- Simulations
- Materials & Tools
- Algorithms

Corporate Governance & Management Culture

Capital

Intellectual Capital
R&D Centers: China, USA, Finland, Denmark, South Korea, Japan, and Singapore

R&D Engineer: 1,532 people

Technical Staff: 2,450 people

Patents: 3,366

Production Capital
Production Bases: Changzhou, Shuyang, Suzhou, Shenzhen, Vietnam

Products and Solutions: Acoustics, Optics, Electromagnetic Drives and Precision Mechanics, MEMS, Radio Frequency and Antenna

Financial Capital
R&D Expenditure: RMB1,512 million

Health and Safety Expenditure: RMB62,536 thousand

Environmental Protection Expenditure: RMB52,696 thousand

Community Investment: RMB1,400 thousand

Human Capital
Total Employees: 35,995 people

Employees with Bachelors' Degree or Higher: 15,632 people

Training Hours Per Employee: 16.6 hours

Social and Relationship Capital
Our stakeholders include clients, employees, suppliers, investors, the local community and government, etc..

Natural Capital
The natural resources that support our operation include land, water, minerals, etc..

CEO Message

Dear Stakeholders,

Sustainable development is an important core value of the Company: a concomitant commitment to developing innovative solutions. We strive to achieve sustainable business growth amid environmental and social impact generated. To secure our leadership position as the world's leading solutions provider for smart devices, we need to continue to bring out the best of ourselves. The way for AAC to do this is to continue to blaze the path of sustainability, continuously improving our sustainability performance and how we measure and manage it.

Talent development is what matters in technology. During the year, we took steps to make our workforce better prepared for the future. While we have fewer workers due to adoption of automation and enhancement of production efficiency, the proportion of undergraduates is on the rise. Our target is that 60% of our workforce should be made up of undergraduates by 2020. This move is backed by smart HR practices and strengthening training and development efforts. This includes offering the millennials a secured career roadmap, a balanced work-life experience and a sense of belonging.

We recorded few cases of work-related injury in 2018. However, we will not be complacent. We will continue with our efforts to raise safety awareness and strengthen our safety management implementations. We have further optimized our health and safety management platform by aligning it with the human resources management system, thereby ensuring safety training is highly specific to the tasks performed by the employees.

Customer satisfaction is the outcome of operational excellence which requires innovation and efficient execution and management. We have laid a strong foundation for allocating resources to research and development and production efficiency. These are pivotal to our future growth. With a clear focus on the R&D roadmap, we operate 15 research and development centres worldwide, including one to be established in Hong Kong in 2019. The number of R&D staff and technicians has reached around 4,000. In 2018, we successfully obtained 925 new patents, owning now a total of 3,366 patents.

> *"To secure our leadership position as the world's leading solutions provider for smart devices, we need to continue to bring out the best of ourselves. The way for AAC to do this is to continue to blaze on the path of sustainability, continuously improving."*

Automation and informationalization initiatives are also under way, which further boost production efficiencies.

Addressing climate change is a shared responsibility for all corporations. We have continued to step up measures for mitigating consumption of fossil fuel and implementing emission reduction initiatives. In 2018, in addition to attaining certification under the ISO 14001 standard on environmental management for all of the major manufacturing factories, for our Shenzhen manufacturing base, the Company is determined to reach a level of emission that is 5% lower than the carbon emissions quota set by the Shenzhen Municipal government. The Company has also commenced establishment of an energy management system with the purpose of monitoring energy use and helping to set an annual consumption target.

Our efforts to raise the bar on reporting of ESG performance continue to yield industry recognition and acknowledgement from our stakeholders. We realise our improved ESG rating and industry accolades are merely milestones in pursuit of our excellence. We are determined to continue to focus on better aligning interests of the Company and those of our stakeholders.

Our stakeholders have justifiably high expectations. We will contribute to a sustainable future through ongoing improvements in performance on environmental, social and governance aspects. We will continue to maintain our focus on providing new innovative solutions that will have a positive impact on our stakeholders as we move forward. I would like to take this opportunity to thank all teams of individuals within AAC Technologies and beyond, who dedicate their time and energy to create and work toward these shared values.

Benjamin Zhengmin Pan
Chief Executive Officer

Sustainability Approach

Sustainable development is one of the Company's core values. We are more focused than ever on growing responsibility while taking care of all aspects of sustainability as well as the well-being of our communities.

The Company's sustainability management extends across various levels in the organization. Spearheaded by the CEO and the Executive Director, this sustainability agenda extends down to all departments and divisions responsible for managing critical sustainability issues and monitoring trends to identify opportunities to improve the Company's sustainability performance.

Governance

Board of Directors
The CEO and the Board oversees the execution of the Company's sustainability strategy as part of their oversight of business strategy and risk management

Audit and Risk Committee	Remuneration Committee	Nomination Committee

Board Review for 2018 Identified ESG Topics
Company's Economic Performance | Talent Management | Training & Development
Occupational Health & Safety | Environmental Expenditure
Social & Economic Compliance | Economic Value Generated

Sustainability Approach
is coordinated by a suite of leaders from across AAC with deep subject matter expertise

Strategic Development	Service Guarantee	Human Resources	CSR	Regulatory Compliance
	Environmental Management Health & Safety Green Products		Investor Relations	Legal

We have clear lines of ESG responsibility and accountability for all senior management and the departments. These departments include Strategic Development, Environmental Management, Health and Safety, Green Products Division, Quality Assurance, Human Resources, Investor Relations, CSR and Legal.

The strategic development department is responsible for integrating sustainability into the Company's overall strategy, ensuring our regulations favouring sustainable operation are drawn in compliance with the law. While the environmental management department focuses on handling environmental issues including environmental impact assessment, pollutants' treatment, effluent and waste management and related technological aspects, etc... The health and safety department is primarily responsible for occupational health and safety issues. Both divisions report to the Services Guarantee Department. Human Resources remains in-charge of community engagement and external affairs.

To promote sustainability across the organization and its operations, the Company has included ESG factors as a strategic consideration in the process of decision-making; responsible department heads are charged with tasks of identifying, assessing and mitigating current and potential ESG risks and opportunities. Check out our sustainability policy on our website.

Business Ethics

AAC Technologies upholds ethical principles through the business ethics monitoring system led by the ethics committee. Chaired by the CEO, the committee oversees and manages all ethics-related policies and internal audits at all regions where we operate.

Our ethics working groups involve human resources, legal and internal audit departments, reporting and handling any cases of unethical behaviour and evaluating the management system. Policies including code of conduct 🔍 , whistleblowing 🔍 , and anti-corruption control system are strictly implemented.

The Company complies with antitrust laws in the locations where we operate. And we compete under fair, ethical and lawful business conditions. We pledge to avoid anti-competitive behavior, prohibiting any activities that lead to price collusion and market domination. In this respect, we take cautious approach as we conduct business in relations with our competitors.

Quarterly risk assessments are conducted in the areas of fraud, anti-bribery, corporate confidentiality and protection of intellectual properties. During the year, the Company focused on educating employees on the importance of ethical business behaviour. We invited representatives from Hong Kong's Independent Commission Against Corruption (ICAC) to give talks and training for employees at multiple locations, raising awareness on anti-bribery, conflict of interests and ethical compliance, etc.. The terms of disciplinary actions have been further revised to deter unethical behaviour. All suspected cases of ethical violations are investigated promptly by the ethics committee under confidentiality and independence.

During the year, the Company received 51 reported cases related to business ethics. They involve mainly employee discipline, payment arrangement for suppliers, unreported conflict of interests and expenditure reimbursement. 42 cases had been resolved with half of them as valid cases. The remaining 9 cases are under processing. No senior management staff were involved in the incidents. Necessary follow-up actions have been implemented through relevant departments. They include improvement of reimbursement and conflict of interest reporting procedures, as well as disciplinary actions to prevent reoccurrence of similar cases. We review the ethics-related policies regularly to ensure they are up-to-date and effective.

Our external auditors are not engaged for any non-audit work unless the non-audit work meets the criteria suggested in the Listing Rules and HKICPA's Code of Ethics for Professional Accountants and has been discussed and pre-approved by Audit and Risk Committee. During the year, we have complied with all relevant laws and regulations that have significant impact on the Company relating to bribery, extortion, fraud and money laundering, including but not limited to Prevention of Bribery Ordinance and Criminal Law of the People's Republic of China.

AAC Technologies has always been compliant with data protection and privacy requirements across different countries where the Company operates. Effective from May 2018, the European General Data Protection Regulation ("GDPR") have come into force throughout the European Union. Prior to the implementation of the GDPR, the Company had already well-prepared itself to become compliant with the GDPR. With the assistance of professional experts, the Company reviewed its data protection procedures and policies, in particular regarding transfer of personal data within the Company. Data transfer agreements have been entered into by and among different subsidiaries in line with the GDPR requirements. In addition, our Company policies and practices have been updated so as to limit and control the transfer of personal data to comply with the GDPR. Our Human Resources team has also taken initiatives to promote our employees' awareness of the importance and compliance of GDPR.

Stakeholder Engagement

AAC Technologies has a vested interest in the communities it serves. When preparing this report, we take into consideration the issues material for both our stakeholders as well as the Company. We are committed to work collaboratively with different organizations, driving positive changes that enrich the lives of those whom we serve and make the world a better place.

Through channels and platforms such as annual reports, sustainability reports, surveys, regular dialogue and meetings, we listen to our stakeholders' concerns; identify the environmental, social and economic issues that demand our attention and take action to improve them. For details of the key engagement topics and channels, please visit the stakeholder engagement section ꭗ on our website.
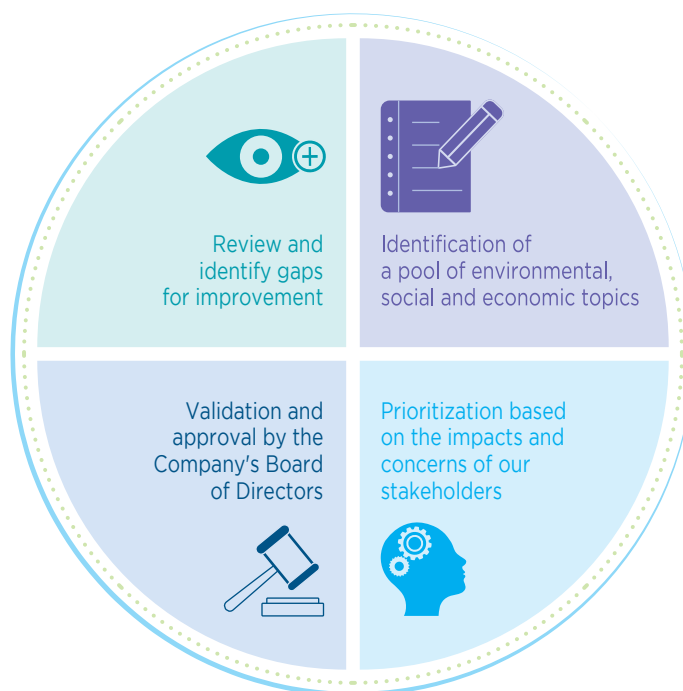
Materiality Assessment

Facilitated by an independent third party, the materiality assessment process enables us to keep our finger on the pulse of what is happening on the ground and what concerns and priorities our stakeholders have. Built on the materiality analysis conducted in 2016, we expanded the group of stakeholders engaged and strengthened the involvement of the Board of Directors, in order to better understand our sustainability priorities.
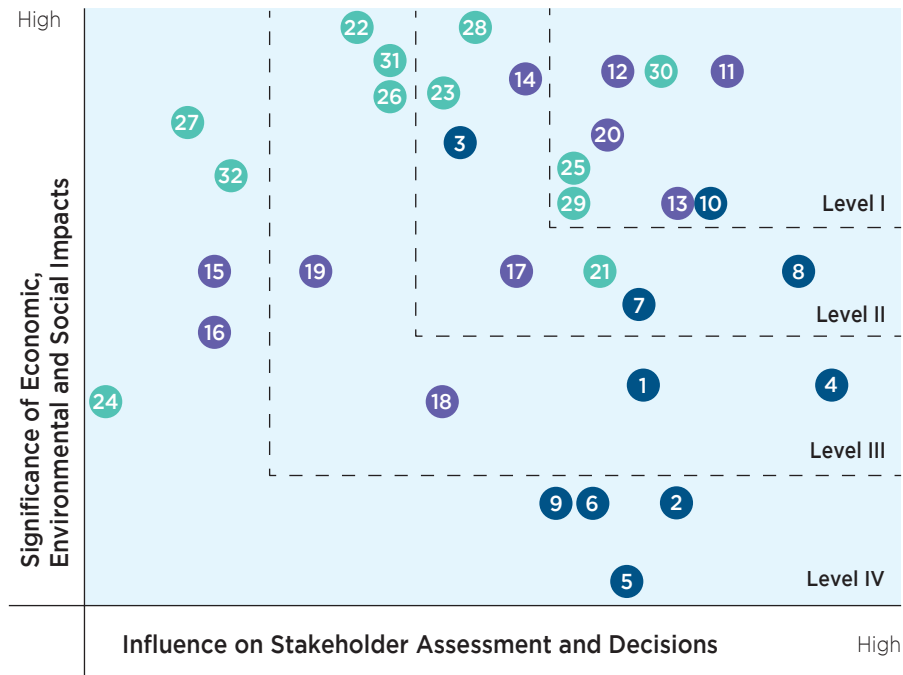
Our materiality assessment involves a four-step process of identification, prioritization, validation and review of material topics.

Following intensive research and peer analysis, a pool of sustainability issues related to environmental, social and economic aspects is identified, with respect to the HKEX ESG Reporting Guide and the GRI Sustainability Reporting Standards. Four new potential topics, namely, child labour and forced labour, product sales and labelling, conflict minerals management, and innovation & intellectual property rights were included, making the list a total of 32 potential material topics.

During the prioritization phase, we conducted online surveys to elicit views of Company's internal and external stakeholders, including customers, investors, employees, suppliers, the government and non-governmental organizations. The aim is to spot the concerns and interests of the stakeholders regarding our list of potential material topics and determine the most significant risks and opportunities of the Company. One-on-one telephone interviews were conducted with both internal and external stakeholder groups, including INEDs and institutional investors who are interested in the development of the Company.

Review and identify gaps for improvement

Identification of a pool of environmental, social and economic topics

Validation and approval by the Company's Board of Directors

Prioritization based on the impacts and concerns of our stakeholders

Sustainability at AAC Technologies

The findings of the materiality assessment have been plotted in a materiality matrix, based on importance of issues to both internal and external stakeholders, and against their impact to the Company's business. In the matrix, material topics are prioritized and categorized into four groups – Level I to Level IV, with topics classified in the first group being identified as the Company's key material topics.

Level I	Level II	Level III	Level IV
11 Talent management	14 Employee communication	22 Data security and customer privacy management	27 Conflict minerals management*
30 Economic value generated at where the company operates^	28 Innovation and intellectual property rights*	31 Anti-corruption	32 Anti-competitive behavior management
12 Occupational safety and health	23 Supplier management	26 Customer satisfaction	15 Anti-discrimination
20 Social and economic compliance	3 Raw materials management	4 Waste management	16 Diversity and equal opportunity
25 Product quality management	8 Environmental compliance	1 Energy management	2 Water management
29 Company's economic performances^	21 Product health and safety	19 Human right protection	9 Green product management
10 Expenditure on environmental protection	7 Wastewater management	18 Community relations	6 Air emission management
13 Training and development	17 Child labour and forced labour management*		5 Greenhouse gases management
			24 Product sales and labelling*

Legend ● Environmental issues ● Social issues ● Operational and economic issues

* Topics newly added in 2018 survey
^ Topics newly identified as **key material topics** (level I) in 2018 survey

Although significant conclusions relating to the Company's sustainability strategy could not be drawn from the results at this stage, stakeholders' concerns have been taken into consideration and addressed in this report. The list of material topics and the results of the materiality assessment were presented to the Company's Board of Directors and were validated and approved. Our efforts in all material areas are addressed within this report or on our website. All identified topics have an impact both inside and outside the company. Except for training & development and talent management impact which only within the Company.

Responding to Stakeholder Concerns

The table below maps out the Company's material topics and our efforts to respond to the stakeholders' concerns. Please refer to the corresponding sections of this report for details of how we addressed the material topics during the year.

Identified Material Topics	<IR> Six Capitals	Key Risks	Progress in 2018	Corresponding Section
Expenditure on environmental protection		Increase in regulatory scrutiny and inspection	Expenditure on environmental protection in the year reached RMB52.7 million, of which RMB6.2 million were spent on equipment. Hired external professional consultants to carry out environmental check-up for our factories, conducted research on wastewater and waste management and reuse of resources.	Environmental Management
Occupational safety and health		Potential legal proceedings resulting in adverse publicity	Developed monthly specialized safety inspections, enabling identification of safety hazards and quicker response to accident Strengthened role of the safety officer and communications on safety management and employee awareness	Managing Safety Risks
Talent management		Recruiting, retaining and developing new talent, and harnessing the existing talent of our employees will allow us to deliver our promise.	Brought new talents to the Company through university-enterprise cooperation, actively engaging with potential candidates and broadening the talent pool Established manufacturing engineer training programme to nurture young talents to become capable contributors of smart manufacturing	Building a Future-Proof Workforce
Training and development		Failure on this could hamper our ability to deliver.	Focused on building up technical proficiency and data analytical skills of employees by promoting Six Sigma training across the Company Maintain the triple-channel system of career pathways with specialized training opportunities to employees in different fields and positions	Training & Development
Social and economic compliance		Reputational damage due to noncompliant or negligent corporate action	Established "AAC Group system and procedures management approach" based on the principles of national laws and regulations, formulating, implementing and revising operational systems and procedures. Conduct internal auditing on safety and quality management systems, ensuring the systems' effectiveness and continuous improvement	Operational Excellence
Economic value generated at where the company operates		Loss of environmental and social licence to operate	Donated RMB1,200,000 to the Beijing Lead Foundation Scholarship to subsidize Teach for China Supported the "Reducing Energy Consumption and Saving the Blue Sky" proposal	Community Care
Product quality management		Ongoing improvement on product quality on quality would lead to higher Improve customer satisfaction. Failure could result in loss on competitive edge.	Obtained 925 new patents in 2018 Optimised our quality management system through introducing big data management, automation, Six Sigma management and internal inspection Achieved higher product defect-free rate	Quality Assurance

Aligning UN SDGs

SDGs is a set of global goals adopted by the United Nations, which consists of 17 goals and 169 targets in areas including eliminating poverty, combating climate change, quality education, etc.. These goals are being implemented from 2016 until 2030. AAC Technologies has a key role to play on contributing to these global goals. Thus, we have been mapping how its key focus and programmes relate to these goals, and the areas that most impact as a business.

In 2018, we identified and disclosed the progress on 8 SDGs and their respective targets that are closely related to AAC Technologies. Key initiatives in responding to these SDGs are presented throughout the report. As our sustainability approach optimizes further, we will increasingly align our efforts with the SDGs to minimize the negative impacts and maximise the positive ones.

SDG	Specific Target	Our Initiatives
Goal 4 Quality Education	Target 4.6 - ensure all youth are able to achieve literacy and numeracy	Subsidize "Teach for China", a not-for-profit education programme targeting children located in under-developed rural areas in China
Goal 6 Clean Water & Sanitation	Target 6.3 - reduce pollution Target 6.4 - improve water efficiency	Actively explore water-saving and water reuse initiatives, ensure effective operation of wastewater treatment facilities for meeting emission standards
Goal 7 Affordable & Clean Energy	Target 7.3 - improve global energy efficiency	Improve the energy efficiency of equipment and adopt renewable energy sources
Goal 8 Decent Work & Economic Growth	Target 8.2 - achieve higher levels of productivity through technological upgrades Target 8.6 - promote youth employment Target 8.7 - take immediate and effective measures to eradicate forced labour and end child labour in all its forms Target 8.8 - protect labour rights and promote safe and secure working environments for all workers	Provide career development opportunities and build a high-value added workforce Conduct due diligence in realizing the elimination of child labour, forced labour and discrimination in the workplace within our operation and supply chain
Goal 9 Industries, Innovation & Infrastructure	Target 9.5 - enhance scientific research and upgrade technological capabilities of industrial sectors	Foster innovation through investing significant resources in R&D
Goal 12 Responsible Consumption & Production	Target 12.4 - achieve the environmentally sound management of chemicals and all wastes throughout the lifecycle of the products Target 12.5 - reduce waste generation	Deploy resources to strengthen its environmental management measures by resources conservation and emissions mitigation throughout most of the product life cycle. Impose stringent requirements on the environmental substance in our products
Goal 13 Climate Action	Target 13.1 - strengthen capacity for addressing and adapting climate-related disasters and natural disasters Target 13.3 - improve its ability to raise awareness on need for climate change mitigation, adaptation and impact reduction	Adopt international guidelines when disclosing the measures taken for addressing climate change Identify risks and opportunities arising from climate change, fully discloses its greenhouse gas emissions data and start setting emission reduction targets
Goal 16 Peace, Justice & Strong Institutions	Target 16.5 - substantially reduce corruption and bribery in all forms	Strive to build an effective and accountable institution through communicating its ethics policies to employees, as well as taking zero tolerance approach to unethical behaviour.

Talent Management

In this Section:

Our talent management strategy is driven by the key aim of upgrading our human capital as we transform our workforce into one with professional knowledge and innovative capabilities. This, we believe is necessary to enable the leap forward to "Smart Manufacturing".

Building for a Future-Proof Workforce

Talent optimization is essential for us to advance towards the goal of smart manufacturing. It is both a challenge and opportunity to upgrade our workforce to enable strategic transformation in terms of automation and informationalization. During the year, the Company pushed forward its talent optimization strategy, strengthening professional knowledge and innovative capabilities of the workforce by focusing on talent acquisition and cultivation.

We aim to bring in the top talents with expertise in specific areas. The Company has taken an active and systematic approach in engaging with potential candidates. We have built long-term strategic and cooperative relationships with local universities and higher education institutions, for example, participating in career fairs, delivering talks and offering interview opportunities to graduates. Through this university-enterprise cooperation initiative, which we have been doing for years, we are expanding our talent pool by closer engagement with potential candidates. This increases effectiveness in identifying and attracting talents that suit our future needs.

Welcoming Young Talents

High level of automation and informationalization involve handling of large amount of data and designing innovative solutions. We have introduced a manufacturing engineer training programme for fresh graduates, organized in partnership with local universities. The curriculum covers a wide-range of topics from engineering and automation, safety and quality and equipment installation to Six Sigma certifications. It is designed to equip technicians with theoretical knowledge, practical skills in data analysis and technical operations, capabilities for designing and improving manufacturing processes.

A comprehensive career path for manufacturing engineers is introduced for supporting the development of fresh graduates who will eventually become a significant driving force of AAC Technologies towards "Smart Manufacturing".

Career Path for Manufacturing Engineer

Worker ► Mechanic ► Technician ► Manufacturing Engineer

Skill and Knowledge acquired:

- Theories of Engineering & Automation
- Technical Operations
- Data Analysis
- Six Sigma Green Belt
- Safety & Quality
- Production Management

Striving for Employee Satisfaction

Maintaining a motivated and engaged workforce is vital for the Company. We conduct annual employee satisfaction surveys to monitor our performance in managing human resources. Items evaluated include job satisfaction, workplace environment, salary and welfare, employee communication, corporate culture, etc.. We value greatly employees' feedback and take them into consideration to enhance our management in various areas such as creating career development opportunities, offering welfare and rewards.

Employee Satisfaction

Decent & Safe Workplace

Communications & Grievance Channel

Training

Welfare & Benefits

Compliance

To raise the efficiency and effectiveness of managing employee matters, the Company began to informationalize the human resources management system during the year, with plans to be completed in a few phases. Utilizing big data and online platforms will allow timely communication with employees on issues such as salary payments, welfare and online training, etc.. We aim to better monitor human resources data for addressing employees' needs.

Training & Development

We encourage existing employees to acquire latest knowledge so they keep abreast of the industrial evolution. The university-enterprise cooperation initiative also includes co-organizing training programmes for existing employees. Courses are offered on electronics, engineering and other specialized fields, with building up technical proficiency and data analytical skills as main objectives. Employees who fulfill assessment criteria are selected as manufacturing engineers. The first batch of manufacturing engineers was successfully promoted during the year.

The Six Sigma training has been promoted across the Company to enhance management skills and product improvement capabilities. Our master black belts serve as lecturers to conduct training for all engineers and managers. During the year, all of our engineers passed Six Sigma green belt training. In the coming year, we target to achieve 100% green belt training coverage for all production managers, engineers and trainee engineers.

Six Sigma Training Overview

Number of People Achieved		Target
Green Belt Training	2,000	100% coverage of all production managers, engineers and trainee engineers in 2019
Green Belt Certification	1,005	100% coverage of all production managers, engineers and trainee engineers in 2019
Black Belt Training	337	300 people completed in 2019, plan to cover 100% of engineers in the next three years

The Company invests in targeted training programmes for employees depending on their intended fields. The triple-channel system offers three different career development pathways for employees specializing in technical, management and professional fields. Training and appraisal systems for production, sales and R&D positions are in place. In 2018, the Company provided a total of 598,873 hours of occupational training to employees, or 16.6 hours per person. This is an increase of 16%.

We also offer cross-field job transfer and rotation opportunities to employees to raise the overall competency. To ensure management succession, the Company continues to collaborate with Harvard Business School and China Europe International Business School, sending its senior executives there to attend development programmes focused upon strategic and global mindsets as well as practical management skills.

Effective Communication & Grievance Channels

Building trust with employees is foundational in driving satisfaction. The Company emphasizes effective two-way communication with employees on all labour related matters. Internal procedures are formulated and strictly followed when handling any labour disputes. We strive to ensure smooth and continuous discussion and mediation processes for reaching mutually satisfactory agreements. We also seek legal advice to ensure all solutions are in compliance with relevant laws and regulations.

We have established multiple channels of communication including hotline, email, text messages, face-to-face meetings and online platforms such as WeChat. We encourage employees to provide feedback through these channels. In 2018, 788 valid suggestions and complaints were received from employees at Changzhou and Vietnam, 88% of which have been taken for improvement measures, the others are in progress. The Company respects the workers' freedom of association and right to collective bargaining. Workers representatives are elected by employees acting as a bridge between the Company and their colleagues. Employees' union membership and right to express opinion are respected and are not discriminated against.

As we believe employees are important contributors to our business success, we do not hesitate to share with our employees the latest developments in the Company. Our internal quarterly magazine contains news on industry trends, editorials and articles related to our businesses, enabling employees to understand the Company better. Employees can also exchange ideas on this platform by submitting letters to the editor.
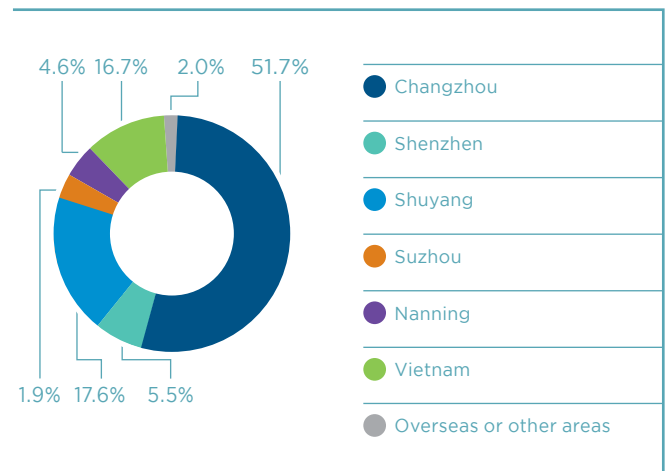
Our Workforce

We believe we have created a decent and respectful working environment, protecting employees from unequal and discriminatory treatment. The Company provides necessary welfare and support to employees with special needs such as ethnic minorities and disabled. We ensure all employees receive the same welfare benefits and enjoy equal opportunities regardless of their contract type, ethnicity, gender and religion. Any discovered cases of discrimination and harassment are handled according to the terms specified in our Code of Conduct. During the year, we are not aware of any cases of discrimination or harassment.

As of 31 December 2018, the Company had a total of 35,995 employees. Changzhou, Shuyang and Vietnam account for 51.7%, 17.6% and 16.7% respectively of the total. 48% of the Company's employees are production operators, while 6% are management executives. R&D, technicians and mechanics takes up 4%, 7% and 35% respectively. The drop in the employee number was due to natural attrition, adoption of automation and enhancement of production efficiency.

The proportion of male to female employees is around 60:40. There are 23,584 employees aged below 30, or 65% of the total workforce. The 31-40, 41-50 and the over 50 age groups represent 28%, 6% and 1% of the workforce, respectively. Approximately 43% of employees have degree level qualifications or higher. Due to a decrease in total number of employees, the number of employees in management positions and higher education level also decreased correspondingly, however, they have taken up a higher portion of the workforce compared to last year. higher portion of the workforce compared to last year.

Geographical Distribution

- Changzhou
- Shenzhen
- Shuyang
- Suzhou
- Nanning
- Vietnam
- Overseas or other areas

Gender Profile

- Male
- Female

Professional Profile

- Management
- R&D
- Technicians
- Mechanics
- Operators

Age Profile

- <30
- 31-40
- 41-50
- >50

Education Profile

- Degree or Above
- High School or Below
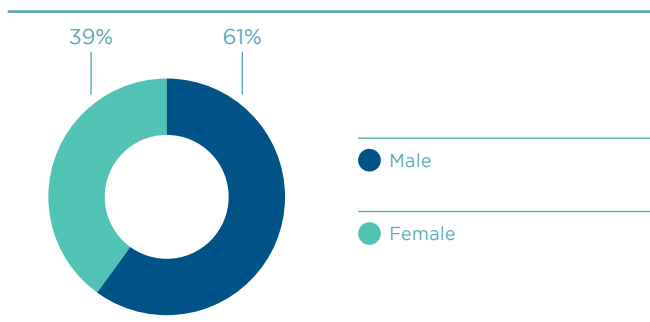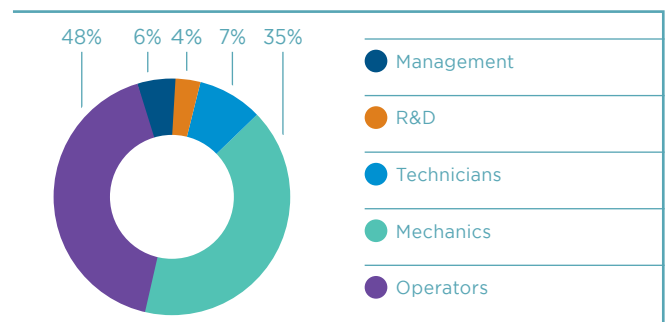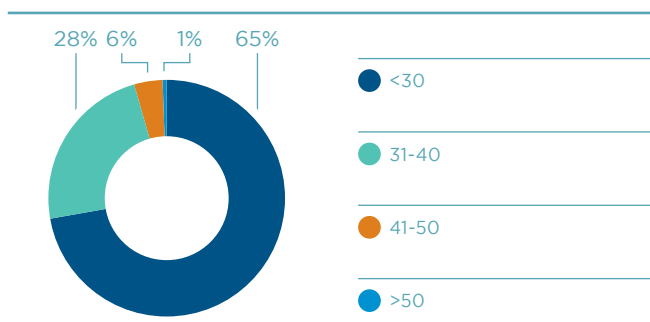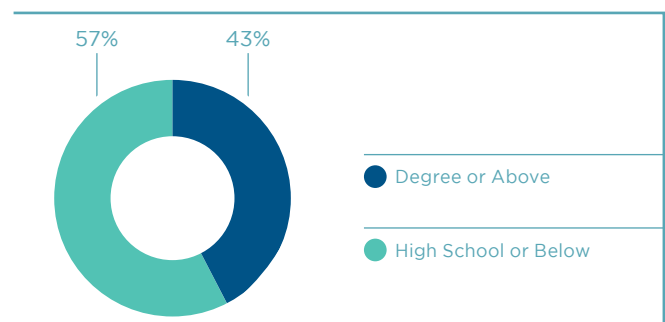
In 2018, the average monthly turnover rate for manufacturing, non-manufacturing employees and the management was 10%, 3.7% and 1.8% respectively. We began collection information on reasons for employee turnover in the 4th quarter. 99% of employee left was by voluntary resignation, while the remaining 1% was due to contract termination and by agreement with the Company.

Employee Monthly Turnover Rate — ● Manufacturing   ● Non-Manufacturing   ● Management
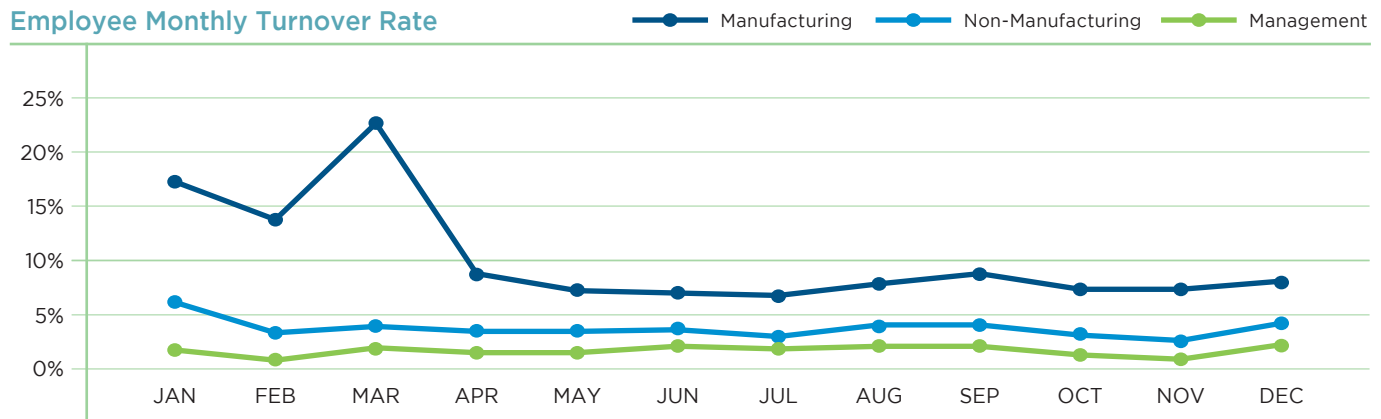
Welfare & Benefits

Welfare and benefits, including but not limited to salaries, allowances, annual leave, bonuses and social insurance are provided according to laws and regulations in the countries and regions where we operate. Accommodation, canteen and free shuttle bus services are also available. We are currently providing dormitories for a total 8,143 employees in Changzhou, Shuyang and Nanning, in which we strive to ensure comfortable living environment. 2-person and 6-person bedrooms are available with on suite bathrooms. Air-conditioning, laundry facilities and lockers are also provided. Spring festival travelling allowance is provided to employees for commuting between their hometown and our sites. To boost the morale within the Company and enrich employees' work life, we organize regular activities with specific themes, such as arts and cooking workshops, badminton competition, festive celebrations and outings, etc..

Arts and Cooking Workshops

Compliance

The Company takes responsibility for ensuring compliance with labour laws where we have operation. We conduct labour risks identification annually, evaluating the urgency and severity of the risks. We take all relevant information into consideration including the latest legal requirements, feedback from clients and stakeholders, and media analysis as we adjust our management approach to the matter. The work hours management system has been revised to better monitor working hours of both manufacturing and non-manufacturing employees.

The Company protects human rights and labour rights in accordance with the "Labour Law of the PRC" and the principles stipulated in Responsible Business Alliance (RBA, formerly known as EICC) Code of Conduct, which have significant impact on the Company. We also evaluate risks of working environment and working hours and prevent use of child and forced labour. Identification documents are checked during the recruitment process.

We respect employees' freedom in joining labour unions and exercising right to collective bargaining. The Company policy does not allow any forms discrimination against employees on their membership and participation in union activities.

We are committed to the Universal Declaration of Human Rights, United Nations International Covenant on Civil and Political Rights, United Nations International Covenant on Economic, Social and Cultural Rights and other covenants and declarations. The Company recorded no violations of labour related laws and regulations that have significant impact on the Company. In addition , we do not have incidents of human rights infringement or use of child and forced labour during the reporting year.

Managing Safety Risks

Embracing our core values, health and safety have always been the top priority in our operations. The EHS management system covers all employees in the Company. All production plants in Shenzhen, Changzhou, Shuyang, Suzhou and Vietnam have obtained OHSAS18001 Occupational Health and Safety Certification. Management structure is designed to involve various departments responsible for production safety, fire safety, chemical safety, environmental management and occupational health, with safety officers assigned to each area.

To ensure compliance with OHSAS18001 and relevant laws and regulations, annual audit is conducted by our internal auditors. This year, we further consolidated our environmental, health and safety (EHS) management system in two aspects: strengthening safety risks control and internal communication on safety issues.

Managing safety risks is the first and foremost task of building a safe workplace. The monthly safety inspections have been developed into specialized inspections. Different areas and production procedures are scheduled for joint inspection by relevant departments each month.

Health & Safety Expenditure
(RMB Thousand)

Year	Value
2016	53,090
2017	69,863
2018	62,536

Inspections are also carried out through live camera monitoring systems. Such an integrated management approach can actively detect safety hazards, which allows quicker response to prevent safety incidents. It also focuses on safety procedures, allowing more detailed evaluation of existing practices. Safety engineers are responsible for rectifications and report to the management monthly. During the year, we have complied with all relevant laws and regulations including but not limited to Production Safety Law of the PRC and Law of the PRC on the Prevention and Treatment of Occupational Diseases that have a significant impact relating to occupational health and safety.

Strategies of Health & Safety Management

- Promoting Safety Behaviour
- Building Safety Culture
- Raising Safety Awareness
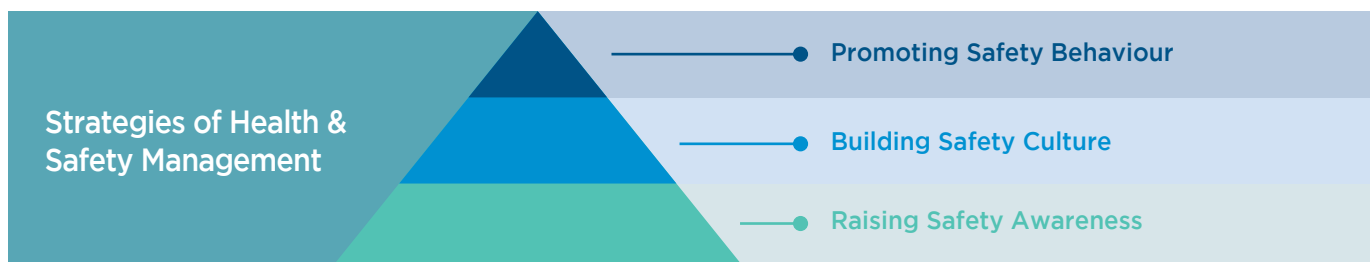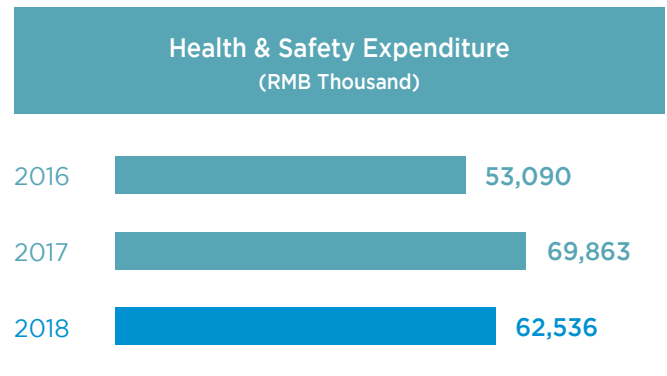
Promoting Safety Behaviour

We believe that a safety culture cannot be created without modfying behavior and practices, which needs high level of participation from employees in sa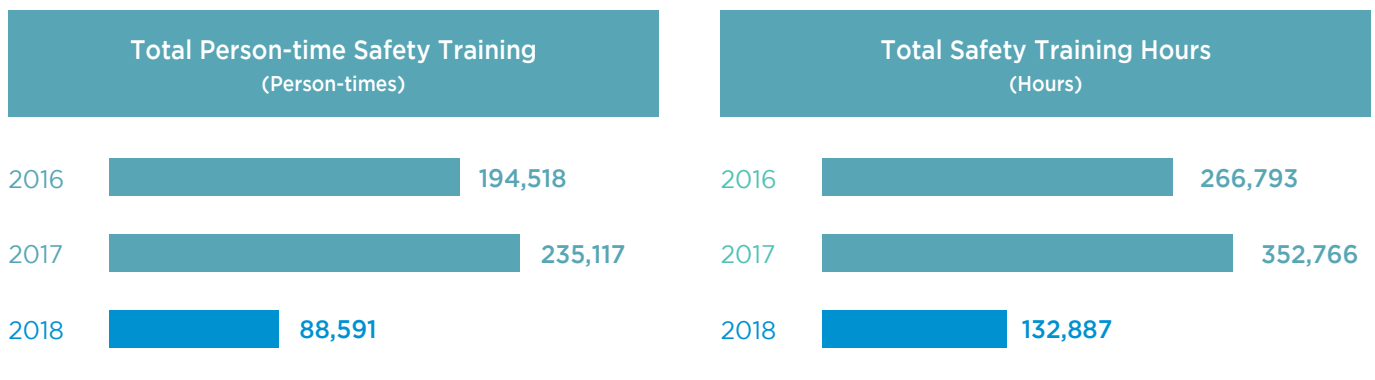fety matters. Safety officers are assigned to be the bridge between employees and the management, bringing feedback from workers directly to the department heads on the monthly safety management committee meeting. They also participate in monthly safety inspections, assist corrective actions and organize safety training and activities etc. The strengthened role of safety officers ensures smooth and thorough communication within the Company on safety management.

During the year, 88,591 person-times received safety training for a total of 132,887 hours. The decrease is due to the smaller size of our workforce relative to the previous year.

Total Person-time Safety Training (Person-times)		Total Safety Training Hours (Hours)	
2016	194,518	2016	266,793
2017	235,117	2017	352,766
2018	88,591	2018	132,887

Putting Focus on Safety Precaution and Response

Fire safety and chemical safety are the major risks in our operations. During the year, we focused our management approach on employee education on emergency response. Regular fire drills and chemical spill drills were carefully planned, conducted and recorded according to relevant standards. Employees were familiarized with hazardous chemicals management system, knowledge on Material Safety Data Sheet and usage of Personal Protective Equipment. Resilience is enhanced on evacuation, rescue, clean up and reporting, encouraging all employees to take responsibility for ensuring emergency preparedness in daily operations.

To protect the safety and security of our facilities, relevant procedures have been established for special areas such as laboratories. There are strict controls in the lab on the use of devices and materials which are classified into three categories according to the level of risks. Guidelines are established on using and maintaining radioactive devices, heating equipment and flammable materials, etc.. As for the security of the facilities, training is provided to security officers on visitor and material control, as well as emergency response to safety incidents.

Fire Safety Training

Following the "Standards for Assessing the Extent of Bodily Injuries", work-related injuries are classified into four categories depending on the severity of injuries (from Type A to Type D)[1]. In case of any safety incidents, reporting mechanisms based on such classifications are in place to trace the reason for occurrence, hold relevant personnel accountable and monitor the status of corrective measures. Such information is recorded by the safety department as a part of the investigation process. Compensation and financial assistance to injured workers are in compliance with the "Regulation on Work-Related Injury Insurances". Workers who resume duty after recovery must pass an evaluation test before doing so.

During the year, the number of lost day due to work-related injuries is recorded at 2,720 days. Majority of safety incidents are traffic accidents occurred when commuting to work, as well as slip and fall accidents in our sites. We have implemented several preventive measures including putting up anti-slip mats, warning signs and handrails along the major aisles of the sites. Road safety trainings have also been conducted to strengthen employee education in this aspect.

Ensuring Road Safety

Considering a case of traffic incident at our site in Vietnam during the year which cause serious injury to one of our employees, the Company took immediate measures to reinforce management on traffic arrangements during rush hours. Routes of human traffic and vehicles within the site are reorganized to diverted traffic flows and prevent collision. The safety department maintained order on site by putting up clearer road signs and ensure employees are notified and observe the road safety arrangements. At the same time, the Company made utmost effort in arranging compensation and insurance claim for the injured employee according to laws and regulations. The human resource department and the labour union maintain communication with the employee's family in providing all necessary assistance, including raising funds within the Company in supporting their immediate economic needs. The employee has now returned to work after proper treatment and recovery.

Preventing Occupational Diseases

For preventing occupational diseases, we conduct job hazard evaluation and revise the list of jobs with health hazards regularly. Job transfer is arranged depending on the level of risks.

The Company arranges free health checks for new employees and annual health checks for existing employees. For employees who are exposed to hazardous factors, health checks are provided before they report to duty, during the employment and before they leave the post. The managers of respective departments have the duty to urge the concerned employees to receive health check-ups and arrange comprehensive health checks if there are abnormal results. All health check records, treatment records and medical history are stored in our occupational health management system for future reference. The number of health checks for new employees during the year was 24,562 person-times, while annual health checks for existing employees was 6,091 person-times.

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[1] According to the "Standards for Assessing the Extent of Bodily Injuries" issued by the Supreme People's Court, Supreme People's Procuratorate, Ministry of Public Security, Ministry of State Security and Ministry of Justice of the People's Republic of China, injuries are classified into slight injury, minor injury and severe injury.

Operational Excellence

In this Section:
Research & Development | Suppliers' Management | Green Products | Quality Assurance | Information Security | Customer Satisfaction

As the world's leading innovative solutions provider for smart devices, AAC Technologies strives to provide its customers with the superior quality products using a focused R&D roadmap, maintaining a sustainable supply chain, improving quality assurance system, safeguarding information assets, thus achieving customer satisfaction on an ongoing basis.

Research & Development

We are committed to delivering innovative products with differentiated performance. Research and Development ("R&D") is vital to the long-term success and growth of our business. AAC Technologies has consistently reinvested significant resources in R&D to build broad sustainable technology roadmaps and intellectual property ("IP") portfolios. We own and operate 15 research and development centres worldwide with around 4,000 senior research engineers and technicians. In 2018, the Company successfully obtained 925 new patents and now has a total of 3,366 patents. Incentivizing employees to develop patentable technologies, the Company filed 2,284 additional patent applications during the year. In order to drive innovation and enhance the Company's competitiveness, patent inventors receive bonuses as encouragements.

R&D

Supply Chain Management

Customer Satisfaction

Quality Assurance

Information Security

Intellectual Property

In compliance with the Tort Liability Law of the PRC and the Decision of the State Council on Further Strengthening of Protection of Intellectual Property, we have formulated IP Business Management Practice to strengthen the Company's IP management while encouraging introduction of new technologies. An IP Department was established under the CEO office during the year which is responsible for formulating the strategies and regulations for the development of IP protection and enforcement framework, reviewing the Company's IP management system, organising IP training programmes, etc.. IP Management Procedures are in place to standardise the operation and to avoid any loss to the Company, customers and suppliers due to IP disputes.

To eliminate the risk of infringing others' IP rights and comply with the Patent Law of the PRC, we conduct patent risk assessment during the product design phase, monitor third parties' patents regularly, modify our product designs when necessary and ensure close cooperation between R&D and Account Management Department to keep abreast with the latest technological developments and undertake early deployment of patents. In case of a patent dispute, an emergency team composed of IP supervisors, account managers and patent inventors will take appropriate actions according to the IP Emergency Plan. During the year, there were no reported cases of infringement of intellectual property rights, patents or trademarks.

Suppliers' Management

Suppliers' responsible business practices are critical to our success in the pursuit of product excellence. To ensure the suppliers' capabilities in providing qualified products, our supply chain management system composes of both service levels and social responsibility.

New suppliers have to go through a stringent pre-qualification procedure which includes investigation, on-site audit and components certification. In addition to having good business reputations and ISO 9001 certification for quality management, suppliers are also required to establish an Environmental Management System according to the latest ISO 14001 standard and sign a CSR Commitment.

Social & Environmental Criteria for New Suppliers

Environmental Management	• ISO14001 certified • Committed not to use hazardous substances listed in environmental regulations • Products must comply with AAC Technologies' environmental standards
Quality Management	• ISO9001 certified • Must have operated for more than 1 year
Intellectual Property Rights	• Possess full legal rights to use the intellectual property rights
Corporate Social Responsibility	• Sign a CSR Commitment

In case of nonconformity, suppliers are asked to take improvement measures and a second audit is conducted after three months. Suppliers who meet all the expected criteria in terms of technological capability, social responsibility, intellectual property rights, quality and environmental management system, etc.., are shortlisted and put on our approved vendors list. In 2018, the Company maintained a list of 408 suppliers in PRC and Vietnam.

Approved suppliers will undergo daily management (includes quarterly quality performance supervision and service monitoring), annual audit, comprehensive performance evaluation as well as risk assessment in accordance with the AVL Supplier Management Approach. Suppliers who are disqualified to supply certain materials have to submit an improvement report within 1 month. After passing the quality audit conducted by our review panel, their eligibility is restored. Suppliers who are disqualified to supply all materials will not be re-used for one year.

AVL Supplier Management Approach

New Supplier Qualification → Daily Management → Annual Audit → Comprehensive Performance Evaluation → Supplier Capability Building

In 2018, 70 suppliers were evaluated for performance in terms of social responsibility. The majority, 96% passed the initial evaluation, and some of the rest were able to pass after rectifications, while one of the suppliers was disqualified for failing the audit. We review the applicability of the supplier management system from time to time according to the Company's management or customer requirements.

In addition, we are developing a Supplier Relationship Management System (SRM) which provides raw data from suppliers for the Company's big data management. The SRM is expected to be launched in 2019. We believe introduction of automation and SRM in supply chain will greatly enhance our product quality and thus deliver higher customer satisfaction.

Supplier Code of Conduct

AAC Technologies continuously promotes social and environmental responsibility throughout the supply chain. Our suppliers are required to operate in accordance with the Supplier Code of Conduct (the "Code") which outlines our expectations of suppliers in areas of legal compliance, labour and human rights, health and safety, environmental protection, ethics as well as management systems. The Code is compiled with references made to international principles, such as the Responsible Business Alliance, International Labour Standards of International Labour Organisation (ILO), Social Accountability International SA8000, OHSAS18001 and ISO14001.

Capacity Building

In conjunction with our automation and smart manufacturing, we require our suppliers to implement automation in key production processes to improve their product quality. To facilitate this, the Company has been providing technical support and training to assist suppliers to achieve automation.

In terms of labour and human rights, our suppliers are committed to upholding human rights of their workers, and to treat them with dignity and respect as understood by the international community. All suppliers are to communicate clearly our policies on anti-discrimination, anti-harassment, prevention of child and forced labour, working hours, wages and benefits, freedom of association and collective bargaining, grievance systems and so on. There were no violations of labour and human rights by our suppliers during the year.

Irregular assessments are conducted to ensure suppliers comply with the Code. In case of non-compliance, we require such suppliers to promptly implement corrective action. Those who reject/fail to carry out remedial actions are terminated.

Conflict Minerals

AAC Technologies recognizes the importance of concerns regarding conflict minerals[1]. We strictly comply with the Regulation (EU) 2017/821 which lays down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas.

Some of our production processes requires the use of gold and tin, which involves a relative small proportion of our supplies. To ensure responsible sourcing of minerals, our Hazardous Substances Management Regulation prohibits procurement of minerals illegally mined in the Democratic Republic of Congo. All our suppliers exercise due diligence on relevant minerals through completing the Conflict Minerals Reporting Template (CMRT) which is formulated by RBA and Global e-Sustainability Initiative (GeSI). Suppliers using gold and tin have to sign a non-conflict mineral declaration form.

Based on the declaration, our GP team requires suppliers to conduct RBA and GeSI Conflict Free Smelter Assessment of smelters or refineries in their respective supply chains and terminate all related business purchases of conflict minerals. We identify all smeltars and refines in our supply chain, ensuring that all of them are in the RMAP Conformant Smelter & Refinery List. During the year, all our suppliers have passed the conflict-free mineral due diligence.

In addition to conflict-free mineral due diligence, suppliers are required to disclose the list of mines from which they procure the raw materials during the process of component certification, ensuring their supplies do not contain conflict minerals.

Working closely with our customers and suppliers, we achieved 100% conflict-free status for gold and tin in 2018. We pay close attention to the latest requirements for conflict minerals and continue to play an active role in promoting responsible sourcing.

Green Products

Adhering to the principle of "Green Material, Green Process, Green Product", we strive hard to produce green products that are safe for employees, customers and the environment.

We keep abreast of the latest international laws and regulations on control of hazardous substances in electrical and electronic products. To ensure compliance with the RoHS[2] (2011/65/RU), REACH[3] (1907/2006/EC) standards and other customer requirements. Our Green Partner (GP) team scrutinises incoming materials for hazardous substances. A list of restricted hazardous substances is stipulated in our Hazardous Substances Management Regulation Manual. Relevant personnel can make reference to the checklist for limits on the contents as well as the corresponding laws and regulations.

In case of any unqualified environmental substances found in raw materials, semifinished products or end products, we immediately notify the management representative and the top manager. We also post a notice on the Company's internal website as a warning. Handling Procedures for Unqualified Environmental Substances is formulated and strictly followed. During the year, we did not receive any complaints about environmentally harmful substances.

Procedures for Handing of Unqualified Environmental Substances
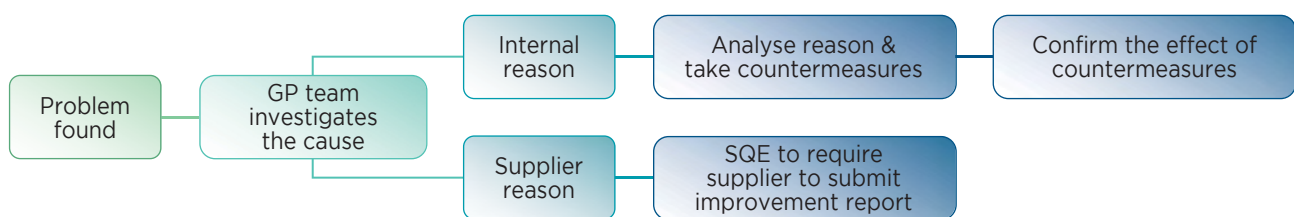
[1] Conflict minerals refer to minerals that are mined under conditions of armed conflict, notably in the Democratic Republic of Congo and adjoining countries. Profits from the sale of these minerals finance ongoing armed conflicts. The four most commonly mined conflict minerals are cassiterite (for tin), wolframite (for tungsten), coltan (for tantalum) and gold ore.

[2] Restriction of Hazardous Substances Directive, a directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

[3] Registration, Evaluation, Authorisation and Restriction of Chemicals.

Quality Assurance

We strive to achieve zero defects. We are taking our quality management system to another level through automation, big data management, Six Sigma process as well as strengthened inspection.

Action	Results	Goal
• Automation • Big Data Management • Training • Internal Inspection	• Optimise quality management system • Improve production stability and consistency • Achieve higher precision	• Achieve "zero defects" in long run

Quality Management System

We have established a robust quality management system to maintain the highest standards of product quality. All production plants are ISO9001:2015 Quality Management Systems certified, while the plants in PRC are QC080000[1] certified, , ensuring the product quality meets international standards We have established a robust quality management system to maintain the highest standards of product quality. Our production plants in PRC are ISO9001:2015 Quality Management Systems and QC080000 certified, ensuring the product quality meets international standards as measured by performance indicators such as delivery rate, energy efficiency and customer satisfaction rate. In case of unqualified products, we scrutinise records, identify, isolate, review and notify in accordance with the Nonconforming Product Control Procedure to prevent unintended use or installation of products.

Basic Handling Procedures of Unqualified Products

Unqualified Product Found

↓

Identify & Isolate Product

↓

Adopt Control Measures

Analyse Cause	Carry out Unqualified Review
↓	↓
Formulate & Implement Improvement Measures	Processed by Review Results
↓	
Verify the Effectiveness of Measures & Standardise	
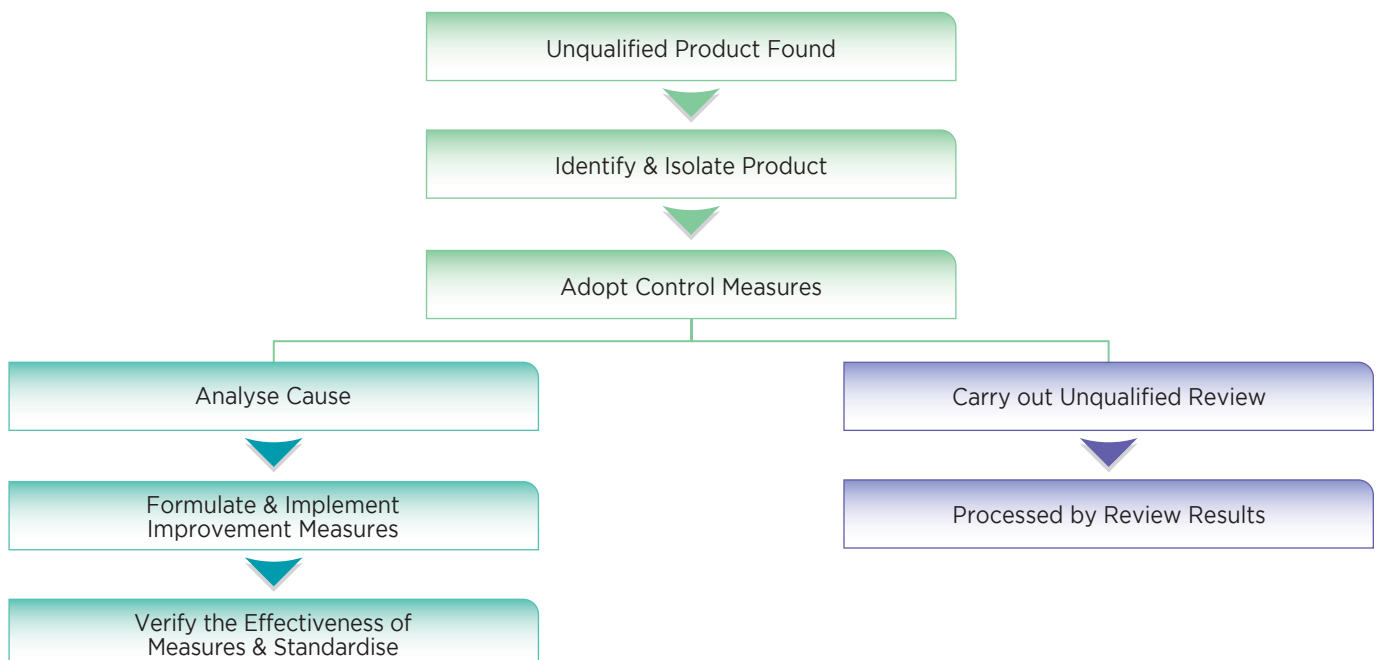
[1] Hazardous Substance Process Management Standards in Electrical and Electronic Components and Products.

Big Data Management & Automation

An integral part of our strategy is attain zero defects. We leverage technology, the application of big data management and automation enable early detection of problems, resulting in higher stability of product quality, lower defect rate and greater productivity. With the assistance from big data management and automation, a quality data management system (QDMS) and a management approach are established to guide the investigation, production, and review of automation equipment projects, contributing to our transformation from manual operations to smart production.

Case Study: Quality Improvement through Six Sigma

Background

A customer's project showed air leakage problem after ultrasonic assembly and it was found to have been caused by sound film rupture.

Improvement Process

To avoid reoccurrence of similar defects, we set up an improvement team to thoroughly improve the air leakage problem with the aid of Six Sigma's methodology.

Result & Benefits

Air leakage case was reduced to an acceptable level <50 PPM	Saved Cost
Improved engineer quality Unearth our potential for new technology development	Reduced the risk of customer complaint and increased satisfaction rate

Internal Audit System

To further strengthen our quality management system, we have established an internal inspection management system since last year. Internal inspectors are responsible to monitor operation of the quality management system in their respective departments, carry out specific inspections, organise relevant training and provide recommendations for improvement.

We have organised a series of training, workshops and seminars to build their capabilities. The performance of internal inspectors is evaluated regularly with indicators such as capability, project collaboration skill and learning ability.

Information Security

The Company treats information security as one of the strategic issues. We have implemented a comprehensive range of measures to safeguard our data assets from breaches, leaks and hacks. We manage the risk of data leakage through management, technology and promotion of awareness. During the year, the Company strictly complied with all relevant laws and regulations relating to information security that has significant impact on the Company, including the Cybersecurity Law of the PRC and the General Data Protection Regulation (EU).

Information Security Risk Management

Management
- Establish an Information Security Management System
- Continuously improve relevant policies

Technology
- Establish an information security management platform through multiple dimensions including firewall, anti-virus software and vulnerability scanning
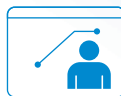
Awareness Raising
- Increase employee information security awareness through education

Level I	Level II	Level III	Level IV	Level V
Manual Equipment Operation	Automated Equipment Operation	Data Monitoring Operation	Equipment Collaborative Operation	Artificial Intelligence Operation

Management Approach

The Company has adopted a robust Information Security Management System to manage sensitive information systematically. In 2018, the Company's IT system was ISO27001 certified. We have also set up a work plan to expand data leakage prevention measures from key business departments to the whole group in long term.

We have maintained a three-level management structure involving information security committee, information security department and information technology department to lead the Company's information security work.

Comprehensive policies are in place to regulate the Company's information security management, covering aspects of data assets, personnel security, communication security, physical environment security, information security incidents, information security training, as well as newly added aspects including account access management, information security and confidentiality management, and information security disciplinary measures.

The above policies standardise the procedures for handling all forms of confidential information to ensure it is not disclosed to third-parties. Employees who violate information security guidelines, laws and regulations, or confidentiality agreements are subjected to penalties. We review and update the policy on a regular basis to ensure its appropriateness and effectiveness.

Information Security Committee	Information Security Department	Information Technology Department
• Top decision-making body • To implement rules and regulations related to various standards and norms of information security operations • To formulate and promote the information security system • To engage in continuous information security training and audits • To provide advice on information security	• To establish, maintain, and continuously improve the information security management system • To conduct internal audits and management reviews of the system on a regular basis • To provide information security training for employees	• To implement information security controls based on information security management strategies, processes, and systems

Evaluation of Management Approach

The Company conducts annual risk assessment and internal audits on the coverage of information security management system, including reviews of the system and implementation of specific control measures to ensure its effectiveness. We make corrective recommendations where appropriate to continuously improve the system.

Promotion of Awareness

In order to raise information security awareness of all our staff members and protect the Company's information assets, we provide various kinds of training to our employees in accordance with the Information Security Training System. Our information security training is divided into induction training and on-the-job training covering topics including Laws and regulations relating to information security, the Company's requirements on information security management Information, etc..

We also provide information security awareness training to all staff members via posters, slogans, brochures, newsletters and so on, so as to educate them to take the appropriate measures on information security.

Information Security Email Reminder

Customer Satisfaction

AAC Technologies strives to deliver best customer satisfaction by optimising product quality. In 2018, we actively aligned our internal goals with those of our customers through accurately communicating customer needs to internal departments.

Management Approach

We have implemented a customer service management system to effectively manage customer service. Our customer satisfaction management strategy is a three-dimensional process which includes comprehensive evaluation surveys, daily data tracking and customer visits.

Customer Satisfaction Management

Customer Satisfaction

Evaluation Surveys

To receive customer reviews by participating in supplier conferences and quarterly review meetings

Daily Data Tracking

To monitor data such as customer return rate and number of complaints on an ongoing basis

Customer Visits

To carry out client engagement activities
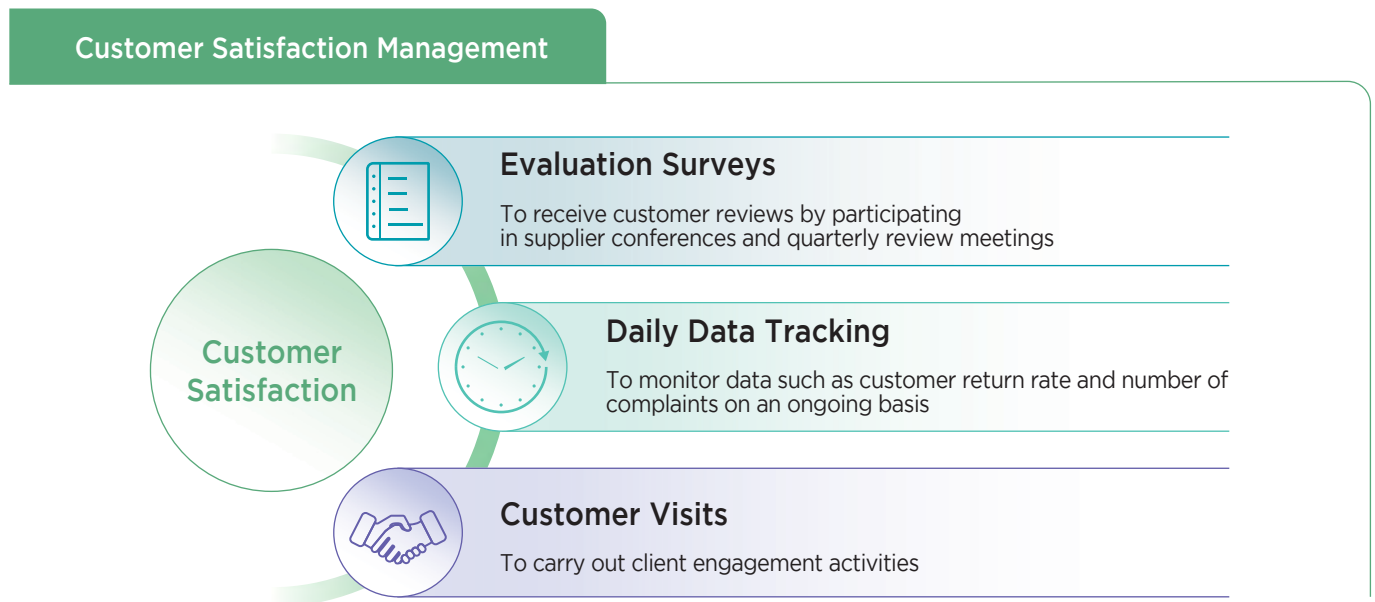
Our departments of sales and marketing, quality, R&D, and operation are taking the lead in providing our customers the best possible experience.

Sales & Marketing
- To establish and maintain good customer relationships, organise regular customer visits
- To conduct customer satisfaction survey
- To handle customer complaints
- To collect customer opinions on product quality, feedback to relevant departments to develop quality improvememnt plan

Quality
- To provide quality improvement measures

Operation
- To provide improvement measures of delivery capacity

R&D
- To provide technical improvement measures

Gauging Customer Satisfaction

To better gauging customer satisfaction, in 2018, on top of conducting surveys, we evaluated customer satisfaction rate according to the direct response from customers regarding a combination of data including number of complaints, purchase volume, market share and new product advancing speed.

2018 Customer Satisfaction Rate

Technical Skill	4.6
Product Quality	4.36
Deliver Capacity	4.2
Service Capacity	4.19
Price Competitiveness	4.02

(Scale: 0, 1, 2, 3, 4, 5)
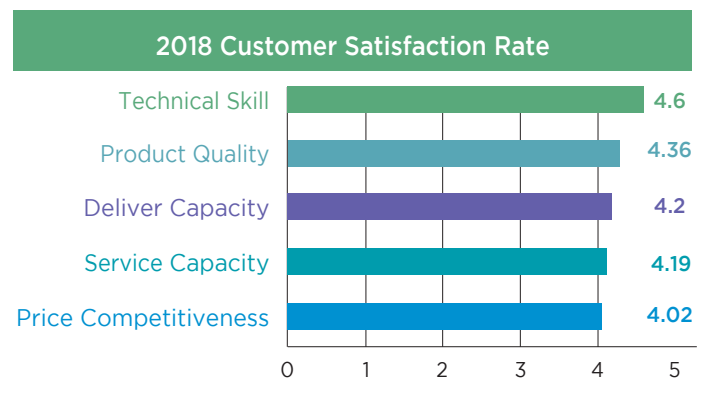
Handling Customer Complaint

We actively communicate with customers and immediately take interim measures to resolve the issue in accordance with the process laid out in our Quality Data Management (QDM) customer complaint system. A response team is formed to analyse the defects and implement improvement measures until the problem is resolved. Subsequently, a customer 8D analysis and improvement report[1] will be filed for customer confirmation. In 2018, we received 280 specific queries from major customers, including complaints and service feedback. All of them were resolved.

In case of a product defect with severe impact, for example, defect product involving safety issues, we strictly follow the product recall process below.

Problem found → Investigation & analysis of reasons → Communication with customers → Impact assessment → Recall of product in case of severe impact → Compensation or return of products according to the contract → Restore customer satisfaction

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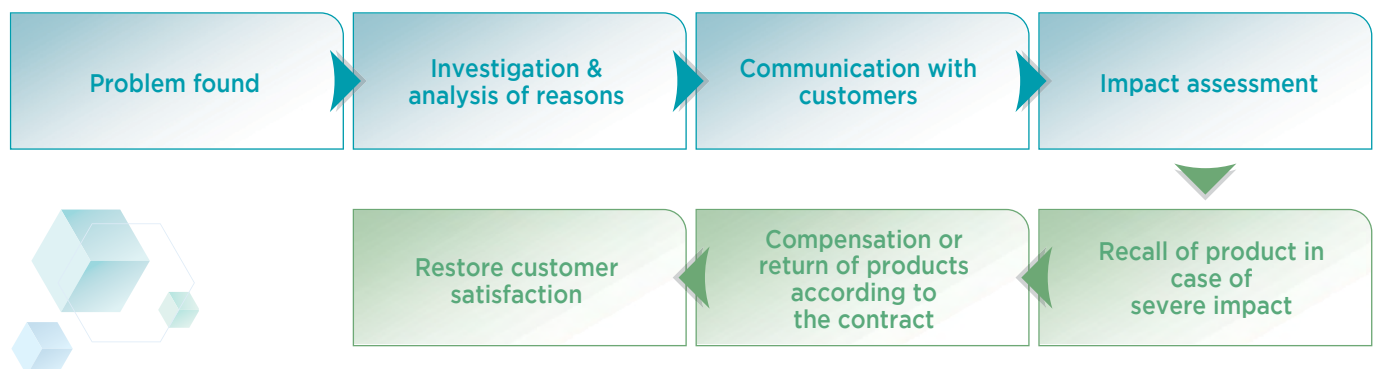
[1] An eight disciplines (8D) model is a problem solving approach commonly applied in manufacturing industry, aiming to identify, correct, and eliminate recurring problems.

Managing Environmental Impacts

In this Section:
Environmental Management | Energy Consumption | Addressing Climate Change | Water Conservation | Effluent & Waste | Exhaust Gas Emission Control

Harnessing big data, artificial intelligence and automation within the Group, we are increasingly incorporating environmental management to improve operation efficiency and system stability.
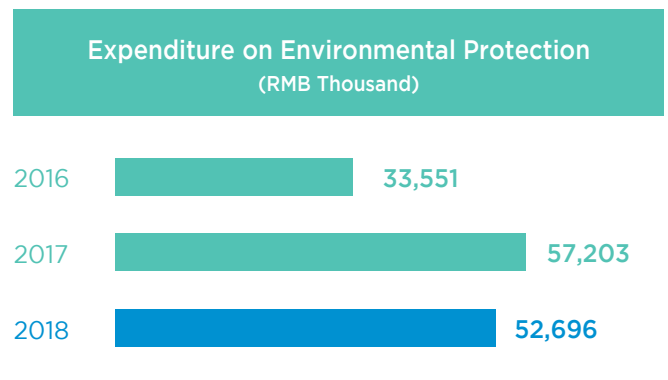
Environmental Management

We have been keeping track of changes in environmental laws and regulations and providing management and staff with relevant information and training, we are well prepared to meet the environmental requirements of all parties.

In response to the PRC government's adjustment regarding environmental acceptance and other management control in 2018, we maintained close communication with the local Environmental Protection Agency and participated in relevant training organized by the agency. Our environmental management department reports relevant information to management regularly and sees environmental protection as a top priority throughout the product planning process. For example, when designing a production layout, we consider environmental requirements of different regions, classify the products and establish production lines at appropriate locations.
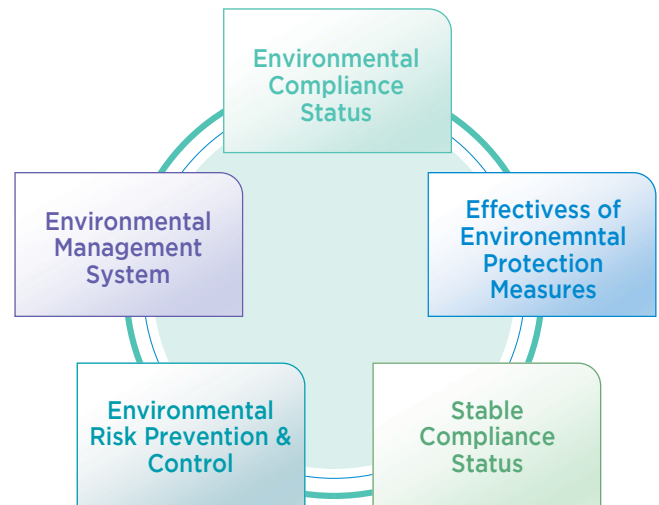
Before commencing production, we conduct environmental impact assessments and design and implement preventive environmental protection measures in accordance with laws and regulations of locations where we operate. For example, we have installed overhead pipeline equipment in some of the factories to avoid soil and water contamination. Environmental management initiative is also implemented during the early stages of product R&D. We set up a hazardous chemical safety management system, under which the research and development department is required to report the chemicals to be used. The chemical special control department is responsible for auditing, including conducting environment related assessments. GP team is responsible for monitoring environmentally harmful substances from raw materials to finished products. AAC Technologies is committed to ensuring that the product and its production process are green and clean.

As the Company is shifting toward smart manufacturing, we have begun to formulate automated control solution for air emissions, wastewater and other treatment facilities. After the implementation of the solution, the operational status of all facilities will be displayed on the system, reducing the need of physical inspection and improving the processing time.

In 2018, our expenditure on environmental protection reached RMB52.696 million, of which we spent RMB6.152 million on equipment. We invested considerably on hiring third-party professional bodies to conduct environmental compliance checks, optimize the environmental management system and carry out environmental engineering design and other consultancy services. Through the improvement of the environmental protection facilities, we have reduced our expenditure on sewage discharge, thus resulting a drop in our expenditure on environmental protection compared with 2017.

Expenditure on Environmental Protection
(RMB Thousand)

Year	Amount
2016	33,551
2017	57,203
2018	52,696

We have set up sustainability policy for the Group and have established an EHS management system and environmental management manual. All production lines have obtained the ISO14001 environmental management certification. The EHS management system is equipped with internal audit control procedures. Internal checkers from the department review the system at least once a year to ensure that it remains effective. In 2018, we have complied with the environmental laws and regulations at the location where we operate, including but not limited to the Environmental Protection Law of the PRC, the law of the PRC on Environmental Impact Assessment, the Environmental Protection Tax Law of the PRC and the law of the PRC on the Promotion of Clean Production.

Environmental Compliance Status

Environmental Management System

Effectivess of Environemntal Protection Measures

Environmental Risk Prevention & Control

Stable Compliance Status

To further ensure the effectiveness of the environmental management system, we have commissioned a third-party independent body to conduct a year-long "environmental check-up" for our factories at the end of 2018.

The third party will conduct an overall environmental behaviour assessment for each of our factories, providing recommendations for rectification and its respective implementation.

Energy Consumption

During the year, we consumed a total of 3,252,015 GJ of energy, of which electricity consumption accounts for 97% of total energy consumption. The increase in energy consumption is attributable to commencement of operations in new factories. The increase in energy intensity to 179 GJ per million RMB revenue is mainly due to decline in revenue.

Total Energy Comsumption (GJ)			
2016	1,374,141	34,285	39,850
2017	2,390,463	48,692	52,567
2018	3,139,564	59,211	53,240

● Electricity ● Gas ● Fuel

Energy Consumption Intensity (GJ/ Million RMB Revenue)	
2016	93
2017	118
2018	179
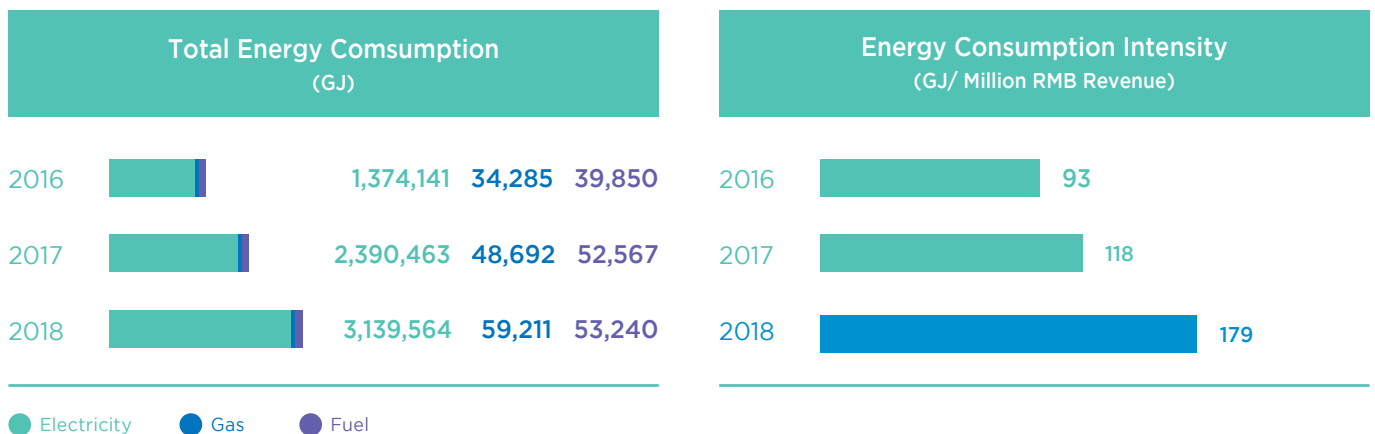
Addressing Climate Change

Energy consumption is the main source of our greenhouse gas emissions. Refining the energy management system helps strengthen our management and control of greenhouse gas emissions. Our environmental management department has actively engaged in the establishment of the greenhouse gas emission accounting system. During the year, six of our companies in Changzhou had their greenhouse gas accounting verified by a third-party agency, in accordance with the ISO 14064 standard. In the future, we are planning to extend the system to factories in Shuyang, Suzhou and other places.

Shenzhen is one of the pilot carbon trading areas in China. With an aim to achieve actual emissions lower than the Shenzhen municipal government quota in 2017, we have set a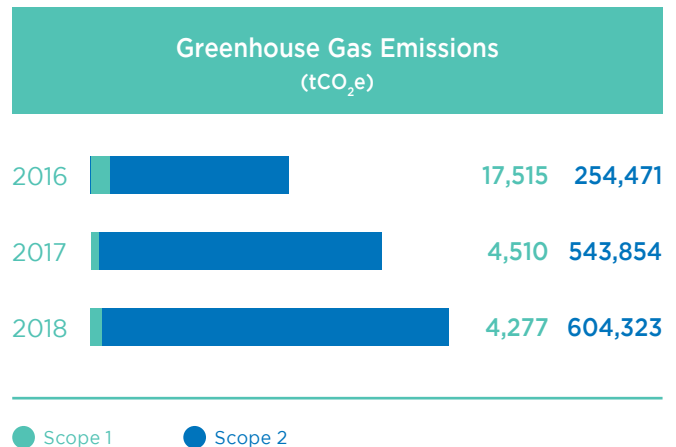 target of recording actual emissions 5% lower than the quota for 2018 – 2020 by adjusting the production capacity and strengthening energy management. Verified by the third-party, our Shenzhen production plant has reduced 11.8% of greenhouse gas emissions in 2018 and has achieved the target.

Sources of our greenhouse gas emissions include fuel combustion, the use of carbon dioxide fire extinguishers, refrigerant dispersal, purchased electricity and other processes. The Scope 2 greenhouse gas emission from purchased electricity was the main contributor. In 2018, our Scope 1 and Scope 2 greenhouse gas emissions[1] were 4,277 and 604,323, respectively, with an emission intensity of 33.6 tCO2e per million RMB revenue. The increase of consumption rate and the causes are consistent with that of energy consumption.

Greenhouse Gas Emissions
(tCO$_2$e)

Year	Scope 1	Scope 2
2016	17,515	254,471
2017	4,510	543,854
2018	4,277	604,323

● Scope 1   ● Scope 2

Energy Consumption Reduction

With the aim to achieve the goal of building a green factory, we established an energy management system in 2018 to implement more specific energy-saving measures through the implementation of a "three-tier" energy measurement. We have entrusted a third-party consultancy to construct an energy management system, in accordance with the GB/T 23331-2012 National Standard of the PRC, i.e. the ISO50001:2011 Standard, in a factory in Changzhou, and promulgate an energy management system manual within the year.

We have set up objectives of "Reducing energy consumption for processing, improving energy consumption management, promoting process energy-saving, enhancing equipment efficiency, optimizing production emission and boosting energy saving awareness". Under the leadership of the general management, a management representative, the person in-charge of energy and a management framework for energy managers are established. With the multi-departmental participation including the service guarantee group, operations department, quality department, R&D department, human resources department and finance department, all staff abide by and cooperate with the implementation of the energy management system. Once the system fully operates, it will help enable automatic data acquisition and centralized control, improving work efficiency and reducing the equipment failure rate.

[1] Greenhouse gas emissions calculations are based on ISO14064:2006 standards. Each facility adopt carbon calculations guidelines and emission factors of the locations where they operate. 6 subsidiaries who passed the carbon audit take 2017 as the base year.

Promoting Solar Power Adoption

We continue to allocate resources to support implementation of energy-saving projects in each factory site. In 2018, we introduced solar power combined with energy-saving equipment, energy recycling and other methods to slow down the increasing usage of purchased electricity. During the year, our Shuyang factory has generated more than 10 million kWh of photovoltaic power. The introduction of the photovoltaic power generation system is also underway at the Changzhou factory. The system is designed and operated by a third-party. We provide space at the factory rooftop and give priority to clean energy usage. The main energy-saving measures we have implemented or have been carrying out are as follows:

Improving the Control of Energy-Consuming Equipment	• The chiller plant at the Changzhou factory has adopted an overall control mode, with cooling capacity on demand, as well as heat dissipation according to external environmental changes
Adopting Energy-Saving Equipment	• Variable frequency motors are being used in several factories • Changzhou factory is piloting to build LED street lamps to replace high-pressure sodium lamps
Recycling Energy	• Changzhou factory is undergoing a construction project, to produce domestic hot water using air compressors.
Introducing Renewable Energy	• Shuyang factory generated more than 10 million kWh of photovoltaic power last year • Changzhou factory is constructing a 3.8 MW photovoltaic power generation system

Case Study: Setting Energy Consumption Target

With the support of the system, one of our factories in Changzhou has established its energy target as a pilot project. We break down the overall target at the company-level into specific requirements that each department can practically implement, including air conditioning temperature, the range of humidity control, and water temperature range of chillers.

To promote target achievement, we are going to establish a dedicated management system inspection and assessment team, which shall evaluate departmental and individual efforts on striving towards the energy target and link the assessment results to economic responsibility.

Aligning with TCFD Recommendations

We realize the growing importance of climate change issues in the minds of investors and other stakeholders. In this report, we have, for the first time, taken into account recommendations of the Taskforce on Climate-related Financial Disclosure (TFCD), to disclose AAC Technologies' management work in four aspects, namely, governance, strategy, risk management, and indicators and targets, in response to climate change.

Our current efforts in environmental management cover energy saving, greenhouse gas emissions reduction and other issues related to addressing climate change. We have summarized our work below:
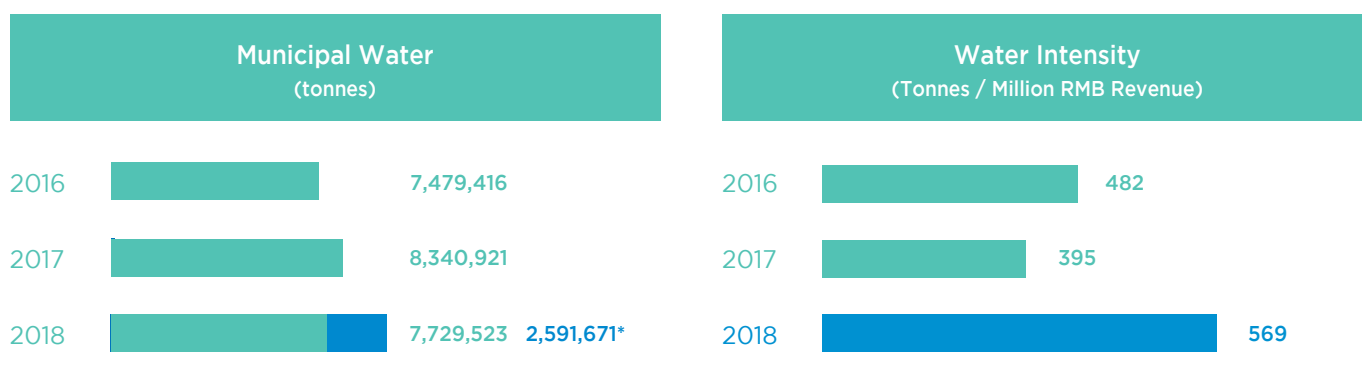
Actions Taken to Combat Climate Change

Recommendations of TCFD		AAC Technologies' Actions
Governance	a. The board's oversight of climate-related risks and opportunities	• The Board annually reviews sustainability work and approves the annual sustainability report, which includes environmental management system and measures for controlling greenhouse gas (GHG) emissions • An audit and risk committee is set up within the Board, whose responsibility is to assist the Board in assessing management's work on risk management
	b. Management's role in assessing and managing climate-related risks and opportunities	• The Chief Executive Officer and Executive Director spearhead and direct the management of sustainable development, including the environmental management department and corporate social responsibility department, to carry out related work on addressing climate change and regularly review performance • The environmental management department, plant operation department and corporate social responsibility department are responsible for managing and monitoring the environmental performance of the factories, including measuring GHG emissions and developing energy conservation and emission reduction measures
Strategy	a. The climate-related risks and opportunities the organization has identified over the short, medium, and long term	**Policy Risk:** • China's environmental requirements are becoming more stringent, with controls over pollutants per unit of production and total emissions included in the requirements. The Company needs to keep up with the regulatory requirements (long term)
	b.The impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning	**Market Risk:** • Customers are continuously improving their requirements for environmental protection (long term) **Opportunities:** • The continued emergence of new energy-saving and emission reduction technologies has helped to reduce consumption of energy and other resources, emissions and thereby reducing resources consumption and the cost of emission management (long term)
	c. The resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	• We will identify suitable scenario-analyzing methods, starting with directional or quantitative analysis, and gradually move towards more specific quantitative analysis in the future

Recommendations of TCFD		AAC Technologies' Actions
Risk Management	a. The organization's processes for identifying and assessing climate-related risks	• We regularly communicate with our stakeholders on sustainability issues, including climate change issues • Our environmental management department monitors the implementation and updating of relevant laws and regulations in real time, to assess the impact of the changes to our environmental management work • The corporate social responsibility department monitors customer requirements for our social responsibility performance, including efforts to address climate change, and assesses the impact of the changes in customer requirements on our relevant work
	b. The organization's processes for managing climate-related risks	• The environmental management department explains and provides training to the Company's top management on relevant laws and regulations • The environmental management department and corporate social responsibility department follow up on changes in external laws and regulations and customer requirements and make preparations • Construct a GHG emission accounting system for main production factories, and carry out external verification of the calculation results according to ISO 14061 standard • Develop an energy management system and through the progressive realization of energy "three-level" measurement to identify and implement energy-saving measures to achieve GHG emissions reduction • In collaboration with environmental groups and participation in Environmental Defence Fund's "Climate Corps" activity in 2017, to identify energy-conservation and emission reduction measures
	c. How processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	• We have set up internal audit control procedures for environmental management work, including our work in addressing climate change such as energy conservation and emission reduction, with audit team leaders and internal auditors responsible for conducting an internal environmental audit at the end of each year
Metrics and Target	a. The metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	**We use the following indicators to measure and monitor climate change-related work, including:** • GHG emissions, including Scope 1 and Scope 2 emissions, and the identification of Scope 3 emission sources • GHG emission intensity, using revenue as an indicator to calculate emission intensity • Energy consumption, including fuel, gas and electricity • Energy consumption intensity, using revenue as an indicator to calculate consumption intensity
	b. Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	• For GHG emissions in the past three years, please see "Data Performance Summary" • The Scope 3 GHG emission sources are identified but not quantified, including employees commuting to and from work, transportation of raw and auxiliary materials, transportation of products, office supplies, solid waste disposal, employee business trips, etc..
	c. The targets used by the organization to manage climate-related risks and opportunities and performance against targets	• Our Shenzhen factory site achieved GHG emissions below the government's allocated quota in 2017, with a target in 2018 of having actual carbon emissions 5% lower than the government quota • We are constructing a pilot energy management system at a factory in Changzhou and have set energy consumption targets per unit product in 2018

Water Conservation

AAC Technologies makes every effort in saving water and reducing wastewater discharge. We integrate water and wastewater management to reduce water consumption at the source, and we implement water reuse to reduce the impacts on the water environment from our operations.

All water used by AAC Technologies is sourced from municipal water, with the domestic use by employees as the main consumption. The proportion of water consumed in industrial production processes is relatively small. With new factory sites having been put into operation during the year, we had a total municipal water consumption of 10,321,194 tonnes, an increase of 24 % over the last year. The water intensity was increased to 569 tonnes per million RMB revenue.

Municipal Water (tonnes)		Water Intensity (Tonnes / Million RMB Revenue)	
2016	7,479,416	2016	482
2017	8,340,921	2017	395
2018	7,729,523 2,591,671*	2018	569

*3 new factories in Changzhou and Shuyang are included in the data collection boundary in 2018

The level of demand for water resources in production processes of different products varies. In this regard, we focus on development of water-saving measures at the production lines or factory sites with high water consumption intensity. Since a large amount of pure water is required in production processes at the Shuyang factory site and the process generates a considerable amount of concentrated water, we have been exploring ways to reuse the concentrated water. In 2018, we have implemented projects of reusing concentrated water to produce pure water and for toilet flushing, which has estimated to save up to nearly 400,000 tonnes of water.

Effluent & Waste

Consistent with water consumption, the corresponding wastewater discharge also increased in 2018 to 9,249,513 tonnes. The proportion of industrial wastewater has increased as compared to 2017, which is attributable to the increase in production of products with higher industrial water consumption. However, the amount of wastewater discharged remained lower than the discharged permitted, taking up around 60% of the permitted amount. Our wastewater management work has strictly complied with applicable laws and regulations, including but not limited to the Law of PRC on the Prevention and Control of Water Pollution and the Regulation on Urban Drainage and Sewage Treatment.

When planning the construction of new factory sites or production lines, we design, build and implement suitable wastewater treatment facilities at the same time, according to the principle of "Three Simultaneous". The environmental management department is responsible for maintaining wastewater treatment facilities and arranging external wastewater training of operating staff for treatment facilities operations. We regularly conduct internal and external drainage water quality checks to ensure the wastewater discharge meets the national and local discharge standards. During the year, AAC Technologies did not violate any laws and regulations relating to wastewater discharge.

Composition of Effluents

46%   54%

● Industrial Wastwater

● Domestic Wastewater

In 2018, we carried out a research on wastewater reuse at the Changzhou factory site and commissioned external environmental consultant to design wastewater treatment plans, aiming to realize the target of zero industrial wastewater discharge in the long run.

Waste Reduction

Our wastewater treatment process is associated with generation of residual sludge from waste and it is the main source of hazardous waste. Aiming to simultaneously control wastewater treatment and waste generation, the environmental management department has implemented a merger management mode. During the year, the production of hazardous waste was reduced due to the decrease of production volume. We commissioned an environmental research institute in 2016 to conduct research on sludge reduction and will implement a sludge drying construction project with reference to the research project. The project is expected to commence in 2019.

We have launched a reduction project in early 2018 for mercury-containing fluorescent tubes. Combined with the energy-saving projects, we aim to extend the service life of the mercury-containing fluorescent tubes and hence reduce waste generation. If the fluorescent tubes are damaged, we replace them with LED tubes to reduce generation of hazardous waste at source.

In 2018, AAC Technologies generated a total of 10,139 tonnes of hazardous waste, an increase of 11% compared to 2017 but takes up only 60% of the permitted amount. A hazardous waste management control procedure is in place in our EHS management system, standardizing the storage, transfer and disposal procedures of hazardous waste, ensuring straight compliance with relevant laws and regulations including the Law of the PRC on the Prevention and Control of Environmental Pollution of Solid Waste and the Administrative Measures for the Prevention and Control of Environmental Pollution by Electronic Waste. During the year, AAC Technologies did not violate any laws and regulations relating to hazardous waste.

Regarding non-hazardous waste, we collect our wastes separately. Metal, waste paper, food waste and other recyclable wastes are recycled by environmental agencies. Other non-recyclable domestic wastes are centrally collected by municipal environmental and hygiene companies. In 2018, the total amount of non-hazardous waste generated was 13,150 tonnes, with 22% of recyclable waste, 5% increase as compared to 2017.
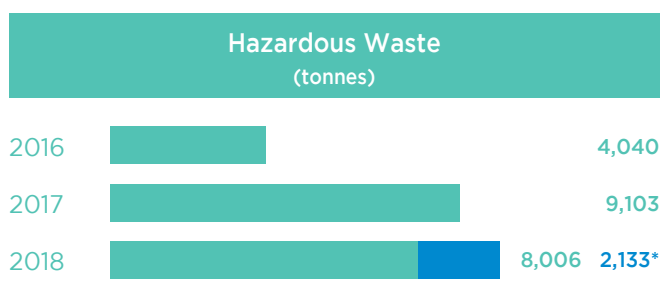
Hazardous Waste
(tonnes)

2016	4,040
2017	9,103
2018	8,006 2,133*

*3 new factories in Changzhou and Shuyang are included in the data collection boundary in 2018

Non-Hazardous Waste
(tonnes)

2016	10,422
2017	16,010 3,384
2018	10,275 2,875
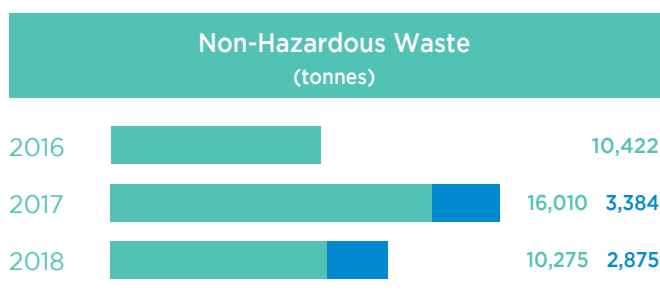
● Non-recyclable   ● Recyclable

*Recyclable waste and non-recyclable waste are calculated separately since 2017

Exhaust Gas Emission Control

Our main sources of pollution include low-concentration organic pollutants, pickling exhaust gas and welding exhaust gas. We classify the exhaust gases by their types and undertake separate collection and treatment, in accordance with the "Three Simultaneous" principle, to ensure compliance with laws and regulations of where our operation is located, including the law of the PRC on the Prevention and Control of Air Pollution and Integrated Emission Standard of Air Pollutants.

The environmental management department is responsible for daily equipment operations control and inspection and is undertaking research on automated control solutions to improve operational and emergency handling efficiency. During the year, we have emitted a total of 0.556 tonnes of NMHC, as well as 0.004 tonnes of tins and its compounds, which are around 50% of the emission amount permitted. There is no reported case of violation of law regarding exhaust gas emission.

Community Care

In this Section:
Environmental Protection | Elderly Care | Youth Education | Looking Forward

The Company has been supporting initiatives related to the elderly, environmental care and youth education. We aim to create positive environmental, societal and economic impacts in all locations we operate. At the same time, we bring contributions and job opportunities to locations where we operate, including developing regions in Guangxi and Vietnam.

Environmental Protection

In response to the World Environment Day and the National Energy Saving Promotion Week initiated by the United Nations and the Chinese government, the Company has organized two events to demonstrate its concerns on environmental issues. We aim to combat the environmental challenges by promoting habitual changes among our colleagues and citizens to ensure a better world for future generations.

The Company encourages all colleagues to practice a low-carbon living style through spreading the "Reducing Energy Consumption and Saving the Blue Sky" proposal during the National Energy Saving Promotion Week. We also suggested several straightforward measures for reducing resources consumption in offices and living places. To minimize carbon emissions from daily operation, we strive to improve the efficiency of facilities continuously.

To support the World Environment Day, the Mangrove Wetlands Conservation Foundation, partnering with other green groups and corporations, launched a transboundary beach-cleansing activity in 17 cities in China, including Hong Kong and Macau. There were 25 of our employees volunteering in the Shenzhen Bay Park Cleanup. This was the third time for the Company to participate in this activity. A total of 108 kgs of plastics and other non-biodegradable litters were collected, of which our team collected approximately 19 kgs. We sorted out and classified the recyclables at the end of the campaign.

Elderly Care

We respect seniors in the society for their contributions in the past, especially those with disabilities and their families had left them alone. During the Dragon Boat Festival, more than 20 volunteers of the Company visited the empty-nesters in an elderly nursing home and brought them necessities such as paper towels. The team taught the seniors how to use the mosquito dispellers, which helped them to sleep well at summertime. And the seniors shared their experience in staying healthy. More than just material needs, we delivered our greetings and care to them at festive time.

Youth Education

The Company is dedicated to supporting education programmes for underprivileged teenagers in rural China. This year we have donated RMB1,200,000 to the Beijing Lead Foundation Scholarship for subsidizing Teach for China, for which we are a long-term supporter. Teach for China is a non-profit education programme targeting children in rural China.

Looking Forward

We are preparing for the establishment of a charity fund, with aims to broaden collaborations with the local government and mobilizing employees to participate in community investment projects and a more structured arrangement.

Performance Data Summary

The data summary provides statistical information on the Company's sustainability performance, which helps facilitate stakeholders' understanding and benchmark our environmental and social performance.

		Unit	2018	2017	2016
Workforce Demographics	**Total Headcount**				
	By Geographical Distribution				
	Changzhou		**18,617**	31,327	28,903
	Shenzhen		**1,971**	2,305	2,034
	Shuyang		**6,321**	10,008	8,626
	Suzhou		**710**	919	559
	Nanning		**1,653**	-	-
	Vietnam		**5,999**	7,038	5,836
	Overseas and other areas		**724**	574	438
	Total		**35,995**	52,171	46,396
	By Age				
	<30		**23,584**	37,602	36,814
	31-40		**10,139**	11,948	7,923
	41-50		**2,058**	2,428	1,531
	>50		**214**	193	128
	By Gender				
	Male		**22,124**	31,190	26,906
	Female		**13,871**	20,981	19,490
	By Educational Background				
	Degree or above		**15,633**	18,252	13,983
	High school or below		**20,362**	33,919	32,413
	By Employee Category				
	Management		**2,042**	2,238	2,027
	R & D◈		**1,532**	4,388	4,206
	Technicians		**2,450**	-	-
	Mechanics		**12,670**	-	-
	Operators		**17,301**	45,545	40,163
	Employees Training				
	Average training hours		**16.6**	14.3	30.3
Health and Safety	**Safe Manufacturing Investments**	RMB thousand	**62,536**	69,863	53,090
	Performance of Occupational Health and Safety*				
	Major pollution incidents		**0**	0	0
	Fire hazard		**1**	4	2
	Total Work-related accidents+		**79**	138	142
	Type A - Slight injury		**30**	-	-
	Type B - Incident with minor injury		**48**	-	-
	Type C - Incident with severe injury		**1**	-	-
	Work-related injuries per 1,000 workers		**2.19**	2.65	3.13
	Lost days due to work-related injury		**2,720**	1,771	2,337.4
	Work-related fatalities		**0**	0	1<
	Number of occupational disease cases		**0**	0	0
	Training on Occupational Safety & Health *				
	Total person-times training		**88,591**	235,177	194,518
	Total training hours		**132,887**	352,766	266,793
	Percentage of workers trained		**100%**	100%	100%

		Unit	2018	2017	2016
Environment	**Environmental Protection Expenditure**	RMB thousand	**52,696**	57,203	33,550
	Total Resources Consumption *				
	Electricity	kWh	**872,101,143**	664,017,445	381,708,872
	Fuel Oil	kg	**1,246,150**	1,230,247	925,249
	Fuel Gas	m³	**1,520,925**	1,250,717	880,653
	Coal	Tonnes	**0**	0	0
	Total energy intensity	GJ per million RMB revenue	**179**	118	93
	Water	Tonnes	**10,321,194**	8,340,921	7,479,416
	Water intensity	Tonnes per million RMB revenue	**569**	395	482
	Emissions *				
	Air Pollutant				
	Non-methane hydrocarbon	Tonnes	**0.56**	0.34	-
	Tin and its compounds	Tonnes	**0.004**	0.004	-
	Effluent				
	Wastewater discharge	Tonnes	**9,249,513**	6,645,461	6,918,338
	Solid Waste				
	Hazardous waste	Tonnes	**10,139**	9,103	4,040
	Non-hazardous waste	Tonnes	**13,150**	19,394	10,422
	Waste intensity	Tonnes per million RMB revenue	**0.73**	0.59 ^	0.93
	Greenhouse Gases Emissions & Intensity *				
	GHG emissions	tCO_2e	**608,600**	548,366	271,986
	Scope I	tCO_2e	**4,277**	4,510 >	17,515
	Scope II	tCO_2e	**604,323**	543,854	254,471
	Emission intensity	tCO_2e per ten thousand RMB revenue	**0.34**	0.26	0.28
	Usage Of Packaging Materials *				
	Carton	PCS	**4,371,985**	3,491,300	4,183,718
	Blister boxes	PCS	**55,964,934**	53,544,827	40,795,052
	Carrier tape	Meter	**11,913,176**	15,007,207	11,428,054
	Carrier disc	PCS	**408,897**	454,709	323,275
	Packing belt	Roll	**1,931**	2,659	2,210 #
	Sealing paper✳	Roll	**NA**	503,981	459,591
	Label	PCS	**24,013,367**	6,023,618	3,963,765
Community	**Donation**	RMB thousand	**1,400**	3,307	2,550

* 3 new factories in Changzhou and Shuyang are included in the data collection boundary in 2018

< Traffic accidents

^ Deleted domestic waste with no direct relationship with production in waste intensity calculation since 2017

> The methodology of computing scope 1 carbon emissions was adjusted in 2017 as we have dismissed sources of emissions which cannot be ascertained. Therefore, the data is not comparable with that of previous year.

Data was restated

+ Classifications on work-related accidents is based on "Regulation on Work-Related Injury Insurances" and "Standards for Assessing the Extent of Bodily Injuries"

◈Data for 2016 and 2017 on this row contains R & D, engineer and technician

✳ Sealing paper was replaced by packing belt in 2018

Memberships and External Initiatives

We actively involved in a number of initiatives and charters promoting sustainable development in economic, environmental and social aspects. The table below summarises our memberships of industry associations and chambers.

Organisations	Membership Company
China Electronic Components Association	AAC Technologies Holdings Inc.
Federation of Shenzhen Commerce in Shenzhen	AAC Technologies Holdings Inc.
Jiangsu Chamber of Commerce in Shenzhen City	AAC Technologies Holdings Inc.
Changzhou Overseas Chinese Entrepreneurs Association	AAC Technologies Holdings Inc.
Changzhou Capital Market Industry Chamber of Commerce	AAC Technologies Holdings Inc.
China Semiconductor Industry Association	AAC Acoustic Technologies (Shenzhen) Co., Ltd.
Shenzhen Hi-Tech Industry Association	AAC Acoustic Technologies (Shenzhen) Co., Ltd.
Federation of Shenzhen Industries	AAC Acoustic Technologies (Shenzhen) Co., Ltd.
Shenzhen General Chamber of Commerce	AAC Acoustic Technologies (Shenzhen) Co., Ltd.
Shenzhen Changzhou Chamber of Commerce	AAC Acoustic Technologies (Shenzhen) Co., Ltd.

Awards and Recognitions 2018

Award Received	Awarded to	Awarded by
Sustainability		
Constituent Member of "Hang Seng Corporate Sustainability Index"	AAC Technologies Holdings Inc.	Hang Seng Indexes Company Limited
Best in Reporting - Certificate of Merit	AAC Technologies Holdings Inc.	Hong Kong - BDO Limited
Grand Award in Best ESG Report - Large Cap	AAC Technologies Holdings Inc.	Hong Kong ESG Reporting Awards
Grand Award in Excellence in GRI Report	AAC Technologies Holdings Inc.	Hong Kong ESG Reporting Awards
Grand Award in Innovative Frontrunner Award	AAC Technologies Holdings Inc.	Hong Kong ESG Reporting Awards
Best ESG / SRI Metrics	AAC Technologies Holdings Inc.	Institutional Investor
Corporate Transparency		
Best Corporate Governance	AAC Technologies Holdings Inc.	Institutional Investor
The 9th Hong Kong Outstanding Corporate Citizenship Logo	AAC Technologies Holdings Inc.	Hong Kong Productivity Council
Investor Relations		
Best IR Company	AAC Technologies Holdings Inc.	Institutional Investor
Most Honoured Company Awards	AAC Technologies Holdings Inc.	Institutional Investor

Award Received	Awarded To	Awarded By
Socio-Economic Contribution		
Award for Shenzhen Private Enterprises for Major Economic Contribution	AAC Acoustic Technologies (Shenzhen) Co. Ltd	Shenzhen Federation of Industry and Commerce, Shenzhen Confederation of Industry and Commerce
Top 500 China Private Enterprises	AAC Technologies Holdings Inc.	All-China Federation of Industry & Commerce
Top 500 Shenzhen Enterprises	AAC Acoustic Technologies (Shenzhen) Co. Ltd	Shenzhen Enterprise Confederation, Shenzhen Entrepreneur Association
Ranked 42 in the top 100 Guangdong Private Enterprises	AAC Technologies Holdings Inc.	Guangdong Federation of Industry and Commerce
Chinese Private Manufacturing Enterprises 500	AAC Technologies Holdings Inc.	All-China Federation of Industry & Commerce
Shenzhen Industries Award	AAC Acoustic Technologies (Shenzhen) Co. Ltd	Federation of Shenzhen Industries
Municipal Award for Major Contribution	AAC Optoelectronics Technology (Changzhou) Co., Ltd.	Changzhou Municipal People's Government
Ranks of Competitiveness of Shenzhen Listed Companies	AAC Technologies Holdings Inc.	China Development Institute, Hongxin Securities
Asian's Fab 50 Companies	AAC Technologies Holdings Inc.	Forbes
Fortune's The Future 50	AAC Technologies Holdings Inc.	BCG Henderson Institute and Fortune magazine
Environmental Responsibility		
Green Office and Eco-Healthy Workplace Awards Label	AAC Technologies Holdings Inc.	World Green Organisation
Product Excellence		
Forbes Digital 100	AAC Technologies Holdings Inc.	Forbes
International Renowned Brand Certificate	AAC Technologies Holdings Inc.	UCSSIC, Federation of Shenzhen Industries
Top 100 China Electronics Components Enterprises	AAC Technologies Holdings Inc.	China Electronic Components Association
Top 100 Jiangsu Province Innovative Enterprises	AAC Optoelectronics Technology (Changzhou) Co., Ltd.	Jiangsu Province Science and Technology Development Strategy Research Institute
Award for Single Item of Manufacturing Industry	AAC Optoelectronics Technology (Changzhou) Co., Ltd.	Ministry of Industry and Information Technology of the People's Republic of China

HKQAA
HONG KONG QUALITY ASSURANCE AGENCY
香 港 品 質 保 證 局

VERIFICATION STATEMENT

Scope of Verification

Hong Kong Quality Assurance Agency ("HKQAA") has been engaged by AAC Technologies Holdings Inc. ("AAC") to undertake an independent verification for its Sustainability Report 2018 ("the Report"). The scope of this verification covers the sustainability performance data and information of AAC for the period from 1st January 2018 to 31st December 2018. This is the sixth report that AAC published to communicate its commitments, efforts and progress of performance towards sustainability.

The Report has been prepared in accordance with the Core Option of the Global Reporting Initiative Sustainability Reporting Standards ("GRI Standards") and the Environmental, Social and Governance Reporting Guide ("ESG Guide") of Hong Kong Exchanges and Clearing Limited. The aim of this verification is to provide a reasonable assurance on the reliability of the report contents.

Level of Assurance and Methodology

HKQAA's verification procedure was designed for devising opinions and conclusions to obtain a reasonable level of assurance. The extent of the verification process undertaken covered the criteria set in the Core Option of GRI Standards and the ESG Guide.

The verification process included verifying the systems and processes implemented for collecting, collating and reporting the sustainability performance data, reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the reporting contents and verifying selected representative sample of data and information. Raw data and supporting evidence of the selected samples were also thoroughly examined during the verification process.

Independence

AAC was responsible for the collection and presentation of the information presented. HKQAA did not involve in calculating and compiling the reporting data, or the content development of the report. Our verification activities were entirely independent from AAC.

Conclusion

Based on the verification results and in accordance with the verification procedures undertaken, HKQAA has obtained reasonable assurance and is in the opinion that:

• The Report has been prepared in accordance with the Core Option of GRI Standards and the ESG Guide:
• The Report illustrates the sustainability performance of AAC's material topics in a balanced, comparable, clear and timely manner; and
• The data and information disclosed in the report are reliable and complete.

Signed on behalf of Hong Kong Quality Assurance Agency

Jorine Tam
Director, Corporate Business
April 2019

GRI & HKEX ESG Content Index

This Content Index includes references to Key Performance Indicators of the GRI Standards and the HKEX ESG Reporting Guide.

Material Aspects	GRI Indicator	ESG Guide	Description	Page Number/ Remarks
General Standard Disclosures				
Organizational Profile	102-1	–	Name of the organization	p. 3
	102-2	–	Activities, brands, products, and services	p. 6-8
	102-3	–	Location of headquarters	p. 6
	102-4	–	Location of operations	p. 6-7
	102-5	–	Ownership and legal form	p. 6-7
	102-6	–	Markets served	p. 6-7
	102-7	–	Scale of the organization	p. 7
	102-8	B1.1	Information on employees and other workers	p. 21
	102-9	B5.1	Supply chain	p. 28-30
	102-10	–	Significant changes to the organization and its supply chain	No significant change
	102-11	–	Precautionary Principle or approach	p. 37-39
	102-12	–	External initiatives	p. 52, 59
	102-13	–	Membership of associations	p. 52
Strategy	102-14	–	Statement from senior decision-maker	p. 9
Ethics & Integrity	102-16	–	Values, principles, standards, and norms of behavior	p. 6
Governance	102-18	–	Governance structure	p. 10
	102-41	–	Collective bargaining agreements	p. 20
	102-42	–	Identifying and selecting stakeholders	p. 12-14
	102-43	–	Approach to stakeholder engagement	p. 12-14
	102-44	–	Key topics and concerns raised	p. 12-16
Reporting Practice	102-45	–	Entities included in the consolidated financial statements	Annual Report
	102-46	–	Defining report content and topic Boundaries	p. 12-14
	102-47	–	List of material topics	p. 13-14
	102-48	–	Restatements of information	p. 51
	102-49	–	Changes in reporting	No significant change
	102-50		Reporting period	p. 3
	102-51		Date of most recent report	2018/05/09
	102-52		Reporting cycle	p. 3
	102-53		Contact point for questions regarding the report	p. 4
	102-54	–	Claims of reporting in accordance with the GRI Standards	p. 3
	102-55		GRI content index	p. 55-58
	102-56		External assurance	p. 54

HKEX Appendix 27 "Comply or Explain" provisions

Material Aspects	GRI Indicator	ESG Guide	Description	Page Number/ Remarks
Performance Indicators – Material Topics				
1. Social - Labour Practices and Decent Work				
Talent Management	103	B1	Report how the organization manages the material Aspect or its impacts	p. 17-23
	401-2	B1	Benefits provided to full-time employees that are not provided to temporary or part-time employees	p. 22
	401-1	B1.2	New employee hires and employee turnover	p. 21-22
Occupational Health & Safety	103	B2	Report how the organization manages the material Aspect or its impacts	p. 23-25
	103	B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	p. 23-25
	403-2	B2.1, B2.2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	p. 50
Training & Education	103	B3	Report how the organization manages the material Aspect or its impacts	p. 18-20
	404-2	B3	Programs for upgrading employee skills and transition assistance programs	p. 18-20
	404-1	B3.2	Average hours of training per year per employee	p. 20
2. Environmental				
Expenditure On Environmental Protection	103	A3	Report how the organization manages the material Aspect or its impacts	p. 38
3. Economic				
Company's Economic Performances	103		Report how the organization manages the material Aspect or its impacts	Annual Report
	201-1		Direct economic value generated and distributed	p. 7
Economic Value Generated At Where The Company Operates	103	B8.2	Report how the organization manages the material Aspect or its impacts	p. 47-49
Social & Economic Compliance	103	B6	Report how the organization manages the material Aspect or its impacts	During the year, there was no non-compliance incidents.
	419-1	B7	Non-compliance with laws and regulations in the social and economic area	
4. Social – Society				
Social & Economic Compliance	419-1	B1(b) B2(b) B4(b) B7(b)	Non-compliance with laws and regulations in the social and economic area	During the year, there was no non-compliance incidents.
5. Social – Product Responsibility				
Product Quality Management	103	B6	Report how the organization manages the material Aspect or its impacts	p. 31-32
		B6.4	Description of quality assurance process and recall procedures	p. 31-32

        HKEX Appendix 27 "Comply or Explain" provisions

Material Aspects	GRI Indicator	ESG Guide	Description	Page Number/ Remarks
Performance Indicators – Non-material Topicsa				
1. Environmental				
Air Emission Management		A1.1	The Types of emissions and respective emissions data	p. 46, 51
Raw Materials Management	103	A2, A3	Report how the organization manages the material Aspect or its impacts	p. 45-46
	301-1	A2.5	Materials used by weight or volume	p. 51
Energy Management	103	A2, A3	Report how the organization manages the material Aspect or its impacts	p. 39-41
	302-1	A2.1	Energy consumption within the organization	p. 39, 51
	302-4	A2.3	Reduction of energy consumption	p. 40
Water Management	103-	A2	Report how the organization manages the material Aspect or its impacts	p. 44
	303-1-	A2.2	Water withdrawal by source	p. 44, 51
		A2.4	Issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	p. 44
Greenhouse Gases Management	103	A1	Report how the organization manages the material Aspect or its impacts	p. 40-43
	305-1	A1.1, A1.2	Direct (Scope 1) GHG emissions	p. 40, 51
	305-2	A1.1, A1.2	Energy indirect (Scope 2) GHG emissions	p. 40, 51
	305-4	A1.2	GHG emissions intensity	p. 40, 51
	305-5	A1.5	Reduction of GHG emissions	p. 40-43
Waste Management	103	A1, A3	Report how the organization manages the material Aspect or its impacts	p. 44-46
	306-2	A1.3, A1.4, A1.6	Waste by type and disposal method	p. 44-45, 51
Wastewater Management	103	A1, A3	Report how the organization manages the material Aspect or its impacts	p. 44-45
	306-1	A1.1	Water discharge by quality and destination	p. 45, 51
Environmental Compliance	103	A1(b), A3	Report how the organization manages the material aspect or its impacts	p. 38-39
	307-1	A1(b)	Non-compliance with environmental laws and regulations	p. 39
The Environment & Natural Resources		A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	p. 37-46
2. Social – Society				
Anti-Corruption	103	B7	Report how the organization manages the material Aspect or its impacts	p. 11
	103	B7.2	Report how the organization manages the material Aspect or its impacts	p. 11
	205-3	B7(b), B7.1	Confirmed incidents of corruption and actions taken	p. 11
Community Relations	103	B8	Report how the organization manages the material Aspect or its impacts	p. 47-49
	413-1	B8.1	Operations with local community engagement, impact assessments, and development programs	p. 47-49

HKEX Appendix 27 "Comply or Explain" provisions

Material Aspects	GRI Indicator	ESG Guide	Description	Page Number/ Remarks
Performance Indicators – Non-material Topics				
3. Social - Human Rights				
Child Labour	103	B4	Report how the organization manages the material Aspect or its impacts	p. 23, 29
	408-1	B4.1	Operations and suppliers at significant risk for incidents of child labour	p. 23, 29
Forced Or Compulsory Labour	103	B4	Report how the organization manages the material Aspect or its impacts	p. 23, 29
	409-1	B4.2	Operations and suppliers at significant risk for incidents of forced or compulsory labour	p. 23, 29
4. Social – Labour Practices and Decent Work				
Supplier Management	103	B5	Report how the organization manages the material Aspect or its impacts	p. 28-29
	308-1	B5.2	New suppliers that were screened using environmental criteria	p. 28
	414-1	B5.2	New suppliers that were screened using social criteria	p. 29
Anti-discrimination	103	B1	Report how the organization manages the material Aspect or its impacts	p. 20-21
Diversity & Equal Opportunity	103	B1	Report how the organization manages the material Aspect or its impacts	p. 20-21
5. Social – Product Responsibility				
Product Health & Safety	103	B6	Report how the organization manages the material Aspect or its impacts	p. 30-31
	416-2	B6.1	Incidents of non-compliance concerning the health and safety impacts of products and services	During the year, there was no non-compliance incidents.
Customer Satisfaction	103	B6	Report how the organization manages the material Aspect or its impacts	p. 35-36
		B6.2	Number of products and services related complaints received and how they are dealt with	p. 36
Innovation & Intellectual Property Rights		B6.3	Description of practices relating to observing and protecting intellectual property rights	p. 27
Data Security & Customer Privacy Management	103	B6	Report how the organization manages the material Aspect or its impact	p. 32-34
	-	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	p. 32-34
	418-1	B6.5	Substantiated complaints concerning breaches of customer privacy and losses of customer data	During the year, there was no complaints concerning breaches or losses of customer data.
Product Sales & Labelling	103	B6	Report how the organization manages the material Aspect or its impacts	During the year, there was no non-compliance incidents.
	417-2		Incidents of non-compliance concerning product and service information and labeling	
	417-3		Incidents of non-compliance concerning marketing communications	

HKEX Appendix 27 "Comply or Explain" provisions

The UN Global Compact

We endorse United Nations Global Compact which is a set of 10 principles in the areas of human rights, labour, environment and anti-corruption. The table below shows our progress in 2018.

United Nations Global Compact Principles		Location in this Report
Human Rights		
Principle 1	Business should support and respect the protection of internationally proclaimed human rights; and	p. 22-23
Principle 2	Make sure that they are not complicit in human rights abuses.	p. 22-23
Labour		
Principle 3	Business should uphold the freedom of association and the effective recognition of the right to collective bargaining;	p. 22-23
Principle 4	The elimination of all forms of forced and compulsory labour;	p. 22-23, 29
Principle 5	The effective abolition of child labour; and	p. 22-23, 29
Principle 6	The elimination of discrimination in respect of employment and occupation.	p. 20-21
Environment		
Principle 7	Business should support a precautionary approach to environmental challenges;	p. 37-39
Principle 8	Undertake initiatives to promote greater environmental responsibility; and	p. 37-39
Principle 9	Encourage the development and diffusion of environmentally-friendly technologies.	p. 38
Anti-Corruption		
Principle 10	Business should work against corruption in all its forms, including extortion and bribery.	p. 11