



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

(Incorporated in the Cayman Islands with limited liability)  
Stock Code: 2018

Sustainability Report **2019**

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## How to navigate our report

Throughout this report, the following icons are used to show the connectivity between sections.



Financial Capital



Human Capital



Intellectual Capital



Manufacturing Capital



Natural Capital



Social & Relationship Capital

# About this Report

AAC Technologies Holdings Inc.'s (hereafter referred to as "AAC Technologies" or the "Company"), seventh stand-alone sustainability report presents a review of the Company's performance on environmental, social and governance (ESG) aspects, elaborating on the aspects 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. To the best of their knowledge, this report addresses the principles of materiality, quantitative, and consistency, presenting the ESG performance of the Company, in a balance manner. 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 (HKEX). For information relating to the Company's corporate 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. The report also draws on the International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC).

## Report Boundary

The social data in the report covers the entire Company. The environmental data in the report covers the business operations of the Company located in Changzhou, Suzhou, Shuyang, Shenzhen, Nanning and Vietnam<sup>1</sup>. The new facility in Nanning, commenced operation during the year, was included in the data collection boundary. In determining our environmental data reporting boundary, the production facilities with fixed assets exceeding RMB1 million are included.

There have been no significant changes to the Company's organisational structure and no significant restatements of data during the year. Data in this report are analysed to account for year-on-year changes and presented in a consistent way.

## Report Period

The reporting period is for the fiscal year ending 31 December 2019 and it will also include activities from the past as well as the more recent ones.

### Feedback

We welcome your thoughts and feedback on this report. Please address any queries and comments to our investor relations department at [aac2018@aactechnologies.com](mailto: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 Company's website under the section "About AAC - Sustainability": <http://www.aactechnologies.com>

The information and data collection and verification are currently done by various departments including investor relations, CSR. 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.

<sup>1</sup> 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.

## External Assurance

Since the period for year ending 31 December 2017, Hong Kong Quality Assurance Agency (“HKQAA”) has provided independent external assurance for the disclosures made in the report. Please refer to page 54 for the assurance statement.

## Our Policies

AAC Technologies keeps the Company’s policies transparent to our valued stakeholders, forming the backbone of our value framework. Our company website has policies relevant to sustainability approach and corporate governance including but not limited to Sustainability Policy, Code of Conduct, Board Diversity Policy, Whistle-blowing Policy, Corporate Disclosure Policy, Shareholders Communication Policy, Procedures for Shareholder to propose a person for election as a Director, Environmental Policy and Employment Policy.

Such relevant policies are available on our Company’s website under the “About AAC” section.

Policy	Company Website
<a href="#">Sustainability Policy</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Sustainability</a> > <a href="#">Sustainability Policy</a>
<a href="#">Code of Conduct</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Corporate Governance</a> > <a href="#">Corporate Compliance</a>
<a href="#">Board Diversity Policy</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Corporate Governance</a> > <a href="#">Board</a>
<a href="#">Whistleblowing Policy</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Corporate Governance</a> > <a href="#">Corporate Compliance</a>
<a href="#">Corporate Disclosure Policy</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Corporate Governance</a> > <a href="#">Shareholders</a>
<a href="#">Shareholders Communication Policy</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Corporate Governance</a> > <a href="#">Shareholders</a>
<a href="#">Procedures for Shareholder to propose a person for election as a Director</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Corporate Governance</a> > <a href="#">Shareholders</a>
<a href="#">Environmental Policy</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Sustainability</a> > <a href="#">Environmental Policy</a>
<a href="#">Employment Policy</a>	<a href="#">About AAC</a> > <a href="#">Company Profile</a> > <a href="#">Sustainability</a> > <a href="#">Employment Policy</a>

# Sustainability at AAC Technologies



## Key ESG Awards



**Hang Seng Corporate Sustainability Index Series Member 2019-2020**

### Hang Seng Corporate Sustainability Index

Listed on the Hang Seng Corporate Sustainability Index and Hang Seng (Mainland China and Hong Kong) Corporate Sustainability Index for 2019, the sixth consecutive year since 2014.



### Hong Kong Sustainability Award

Received the “Hong Kong Sustainability Award Certificate of Excellence” and “Citation for ESG Disclosure 2019” from The Hong Kong Management Association.



### Best Corporate Governance Awards

Awarded with the “Special Mention” at Best Corporate Governance Awards 2019 by Hong Kong Institute of Certified Public Accountants



### BDO ESG Awards

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



### Hong Kong ESG Reporting Awards (HERA)

Received two Grand Awards in the Hong Kong ESG Reporting Awards (HERA)



### Green Office and Eco-Healthy Workplace Awards

Green Office and Eco-Healthy Workplace Awards Label by World Green Organization

# About Us

AAC Technologies is the world's leading solutions provider for smart devices. We deliver advanced miniaturised and proprietary technology solutions across acoustic, optics, electromagnetic drives and precision processing, micro electro-mechanical system (“MEMS”), radio frequency (“RF”) and antennas. Our products are found in smart devices, including smartphones, tablets and wearables.

## Our Value Framework

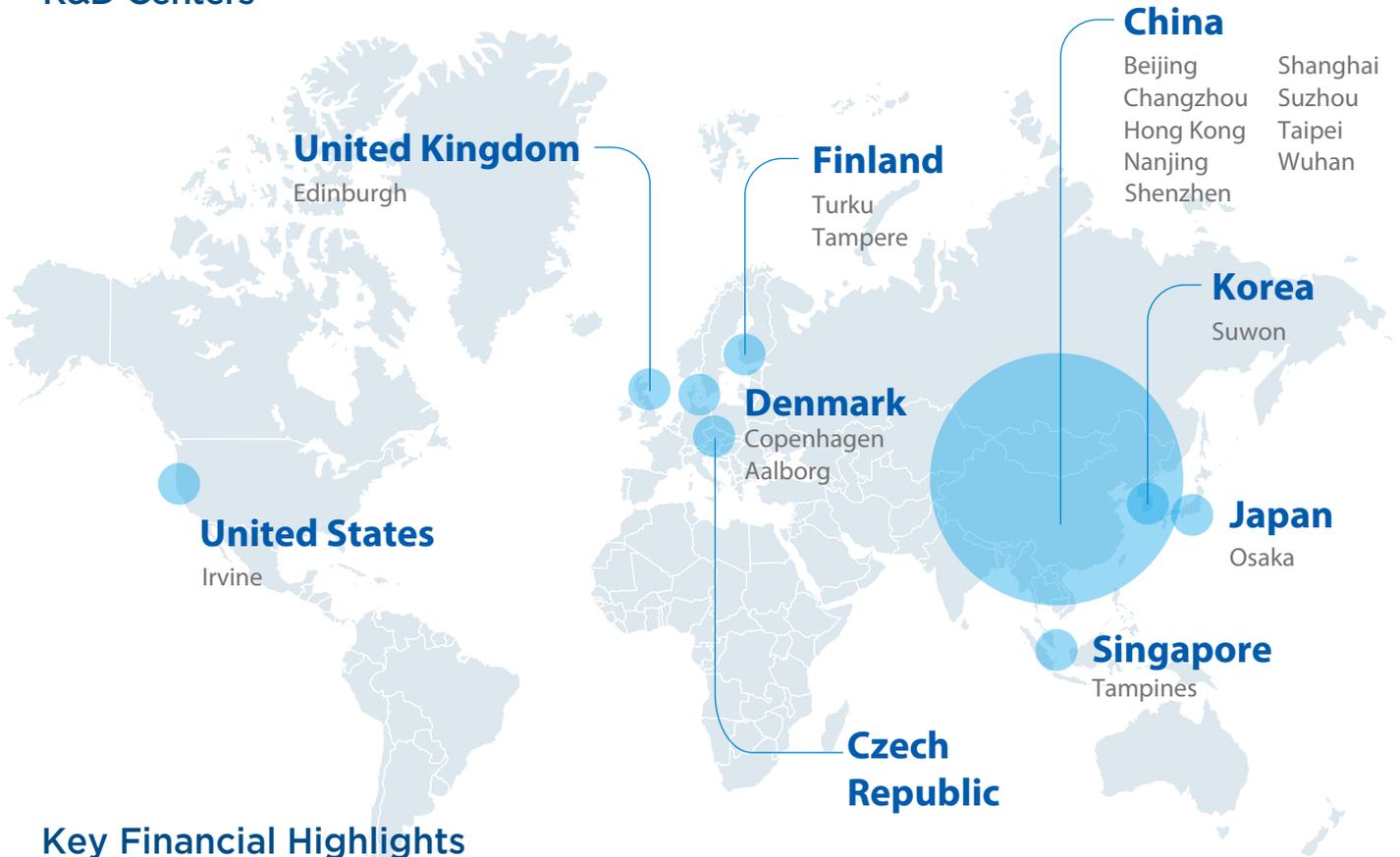
At AAC Technologies, safety first, scientific management and sustainable development are our values which are at the core of every business decision we make. We strive hard to achieve a balance of good economic performance, environmental stewardship and corporate social responsibility that extends beyond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



## Our Worldwide Operation

AAC Technologies operates around the globe with research and development (“R&D”) centers in mainland China, Singapore, Japan, the United States, Finland, Denmark, Taiwan, Hong Kong, the Czech Republic and the United Kingdom, testing laboratories in Singapore and South Korea, manufacturing facilities in China, Vietnam and the Philippines and sales offices optimally located in different parts of the world. Being the Asia Pacific regional headquarters, AAC Singapore leads the major R&D operations as well as the global sales and marketing and treasury functions of the Company, and, will continue to play a significant global strategic role for the Company.

## R&D Centers



## Key Financial Highlights

### Revenue (million RMB)



### Net Profit (million RMB)



### Net Assets (million RMB)



### R&D Engineers & Technicians



### Reinvested in R&D

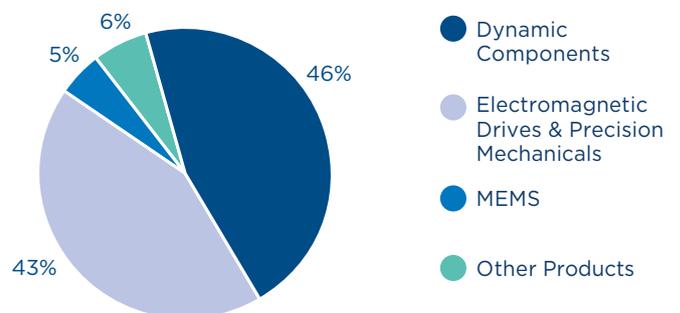


### Return on Equity

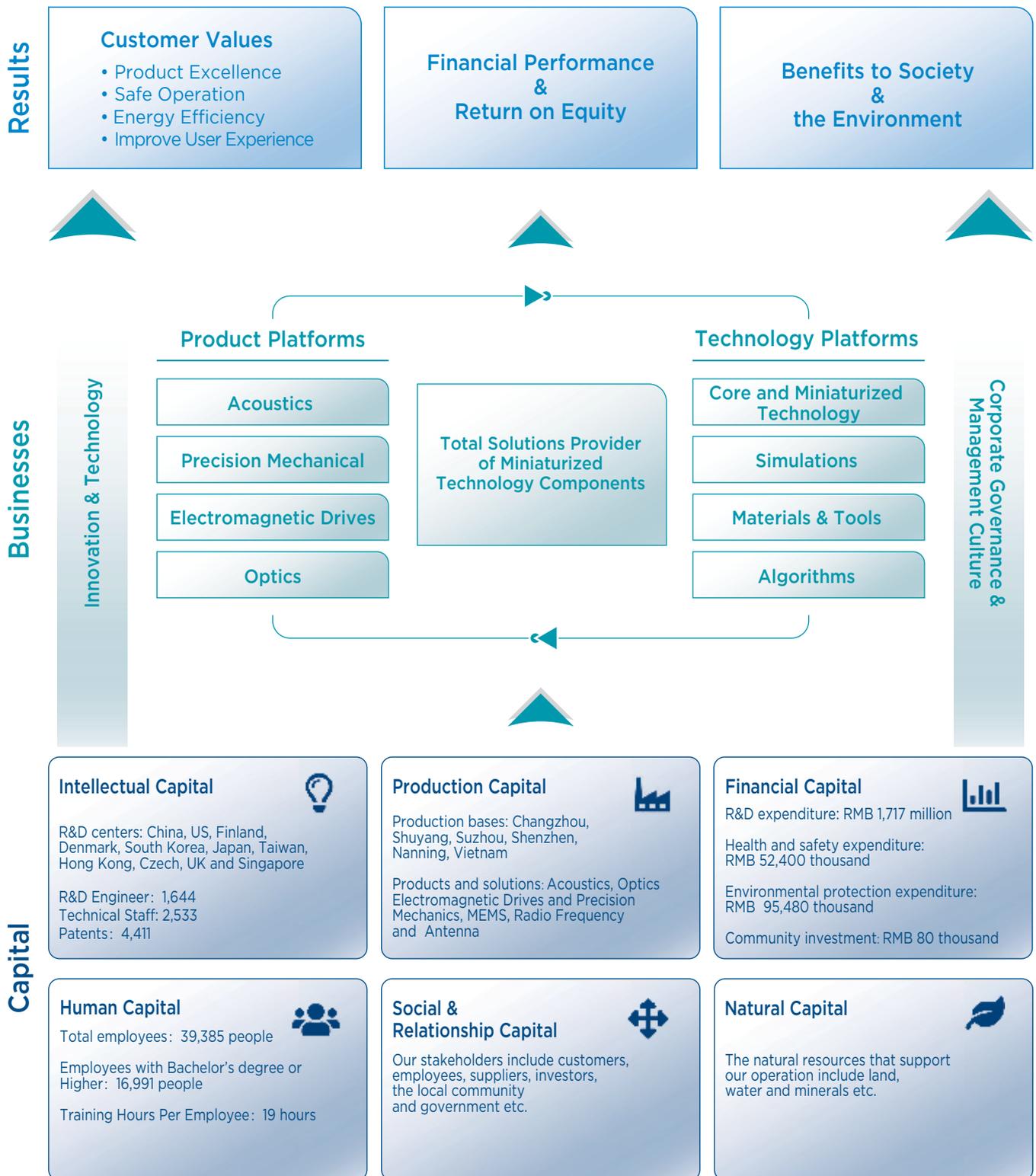


AAC Technologies has been developing total solutions by cross-platforms core technologies and production know-how to optimize structure and functional performance, aiming to achieve overall excellence in design specifications in our product portfolio. At 31 December 2019, the revenue distribution of our major product segments is as follow:

### 2019 Revenue Distribution



# Our Operation Model



# CEO Message

Dear Stakeholders,

As at time of writing, global markets have continued experiencing significant turmoil. Global restrictions of business operations, logistics, social and trading activities are causing economic slowdowns, and most likely to extend beyond the first-half of 2020. This recession period of weak consumer sentiment and dampened smartphones demand will adversely impact business operations of the Company. Inevitably, any short-to-medium-term business plans will need to be reassessed and revised. At the same time, the industry we are in remains incredibly dynamic and the innovation cycles of our products have increasingly been compressed. There lies our opportunities.

We must adapt to change and become more innovative to sustain and thrive. This has to be reflected on how we refine our approach towards ESG. While we are glad to have received industry recognitions for our levels of disclosure, we must identify ways to create value from ESG and be ready for change, irrespective of whether these changes are brought by investors, regulators, customers, employees or other stakeholders. Our urge to embrace change comes at the right time, when our industry is accelerating on the road to transformation. I would like to present our stakeholders with the ongoing refinement of our management approach to critical ESG topics, as well as our improved disclosure level.

This year, our management approach towards ESG has anchored the focus on topics that are important to both our operations and sustainability, including talent, product quality, energy efficiency, greener materials and supplier management. We have invested more management efforts and resources to uncover value by paying more attention to details.

Our production bases are expanding and that bring not only compliance risk, but, amongst other issues, put more attention on how we consume energy. Consistent with our business strategy to transform, our ESG efforts have to match. This year, we have taken a more proactive approach to ensure environmental compliance by engaging an independent third party to assess the effectiveness of our environmental management system. The results will lay the foundation of how we strive for stewardship going forward.

**“We must adapt to change and become more innovative to sustain and thrive. This has to be reflected on how we refine our approach towards ESG.”**

We have taken some concrete steps for optimising our energy mix, using more solar energy from our increased number of roof top panels and raising our energy usage efficiency. With more of our facilities attaining the ISO energy management certification, we expect to see more specific results in coming years. We have also spent some efforts in waste classification, spearheaded by our implementation of “zero waste to landfill” standard. One of our pilot plants in Changzhou was able to raise its waste diversion rate from 81% to 96% by reducing, recycling, and turning waste into energy.

While our automated operations, an important energy efficient direction, helps drive down the number of work injuries and the product defect rate, we need our employees to raise their capabilities in solving problems. This year, around 95% of our engineers have passed six sigma green belt assessment, and 17% have passed black belt certification. As the innovation cycle of the product shortens, having our workforce with problem-solving skills will become forward-looking. We are making progress on innovating high-end technologies. In 2019, we successfully obtained 1,192 new patents, owning now a total of 4,411 patents, with 35% of them are invention patents. In addition, our EHS system was digitised this year, improving the efficiency and effectiveness when identifying and rectifying safety hazards.

Having the right people is most important to every business. This year, we continued to consolidate our culture of engagement that sustains our drive and innovation to ensure talent growth by designing fast tracks for career advancement and motivating employees to excel while offering solid training to ensure upward mobility and talent succession. We can only attract and retain talent through an environment that supports them and can unleash their potential.

We regard the staff safety as top priority, consistent with the firm belief that talents and technologies form the cornerstones of our sustainable development. Soon after COVID-19 outbreak, a special task-force team was formed to lead the design of policies and procedures for hygiene and work resumption arrangement at

each office, R&D center and production facility across the world which is covered in the latter section of “Talent Management - epidemic prevention and control”. Its implementation abides by the most stringent standards in accordance to the relevant government regulations and guidelines. The relentless efforts, collectively contributed by our staff at all levels, have resulted in satisfactory progress of work resumption. Simultaneously, our management has been maintaining regular communications with other stakeholders including customers, suppliers and other parties in the smartphone supply chain.

ESG reporting is not only a tool but also allows us to review our management approach to key topics. While

we can see the results in being named to the Hang Seng Corporate Sustainability Index for the sixth year in a row and in other recognitions and accolades such as the Best ESG Report (Large-cap) from the Hong Kong Best ESG Reporting Awards for the second year, continual improvement is expected by our customers, as well as our other stakeholders.

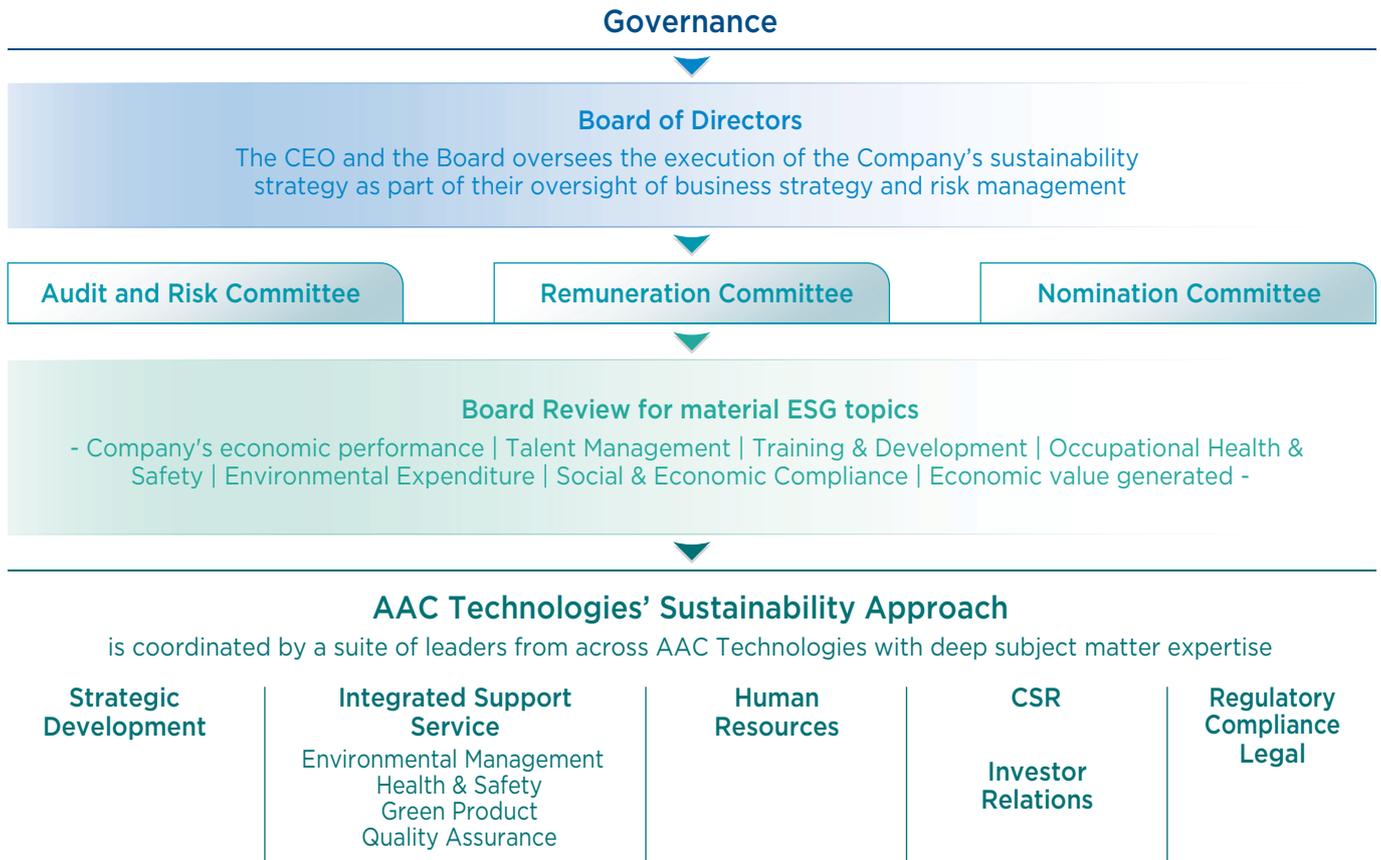
While riding out the storm, we acknowledge the next step in our sustainability is to continue this journey by establishing next-level goals for our company.

**Benjamin Zhengmin Pan**

Chief Executive Officer

# Sustainability Governance

Sustainable development is one of the Company’s core values. The overall responsibility for sustainability lies with the CEO and the Executive Director. Our sustainability management extends down to all departments and divisions responsible for managing the risks brought by critical sustainability issues and monitoring trends to identify opportunities to improve the Company’s sustainability performance.



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. Each department is responsible for identifying and managing its risks.

Subsequent to the financial year end, we have strengthened our governance structure further by establishing a Sustainability Working Group with clear roles and responsibilities defined. Reporting to the board directly, the Group is responsible for identifying key improvement areas for ESG and advising the Board on the effective management of the Company’s sustainability risks. Available on our website under the section of Sustainability Policy, the terms of reference of the Sustainability Working Group lays out its purpose, membership and responsibilities, joining the forces of relevant departments in managing sustainability topics.

## Business Ethics

AAC Technologies operates ethically and in alignment with honesty and impartial with legal and moral standards. Any forms of corruption such as bribery, extortion, fraud, and money laundering are strictly prohibited in the Company. All ethical principles, policies and management approach of the Company are stipulated in our Code of Conduct, covering areas including but not limited to:

- Anti-corruption and anti-bribery: providing/acceptance of gifts and benefits
- Conflict of interests
- Conspiracy and fraud
- Anti-trust and anti-competition
- Confidentiality

### Prevention

The Audit and Risk Committee assists the Board to supervise the Company’s risk management and internal control. The performance of the committee is evaluated annually. The responsibilities of general staff and management are listed in the code of conduct to ensure lawful operation.

#### *Ethical Responsibilities of General Staff and Management*

General Staff	Management
<ul style="list-style-type: none"> <li>• Avoid having conflict of interests:                             <ul style="list-style-type: none"> <li>- Report relationship with business partners, including suppliers, employees to the Company</li> <li>- Employees shall not accept or claim any amount of cash, gifts, privileges or hospitality</li> </ul> </li> <li>• Anti-corruption behaviors:                             <ul style="list-style-type: none"> <li>- Report and return monetary or non-monetary gifts received from the external parties to the Company</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Prevent anti-competitive behavior:                             <ul style="list-style-type: none"> <li>- Take cautious approach when conduct business in relations with competitors</li> <li>- Provide guidance when subordinates seek for anti-corruption related advice</li> </ul> </li> <li>• Strengthen employees’ ethical awareness:                             <ul style="list-style-type: none"> <li>- Provide monthly and annual training on business ethics to newcomers and staff respectively</li> <li>- Ensure staff have signed the business ethics agreement at the beginning of each year</li> <li>- Encourage subordinates to report any suspicious corruption cases</li> </ul> </li> </ul>

### Whistleblowing

Whistleblowers can report suspicious cases anonymously through email, mailbox and hotline to the ethics committee. Identities of both the whistleblowers and the party complained against are kept confidential, if information is provided.

During the year, there were 55 cases on business ethics reported which involve mainly employee discipline and false reporting work overtime. All cases were of minor nature and had been dealt with according to appropriate internal standards and policies.

**Investigation**

The ethics committee investigates each reported case in confidentiality and independence. All information related to the case are filed properly and the results are reported to the relevant departments. We review the internal ethical policies regularly to ensure their effectiveness and prevent reoccurrence of similar cases.

Employees whose behaviors are found to violate ethical standards are subject to disciplinary actions including but not limited to receiving warning letters, position adjustment or termination of employment contracts, based on severity of violation. A 2-year retroactive period is applied to employees’ unethical actions.

During the year, the Company was not aware of any non-compliance of relevant laws and regulations<sup>2</sup> that have a significant impact on the Company relating to bribery, extortion, fraud and money laundering.



Our commitments and programs as described above contribute to:  
Target 16.5 - substantially reduce corruption and bribery in all forms

**Stakeholder Engagement**

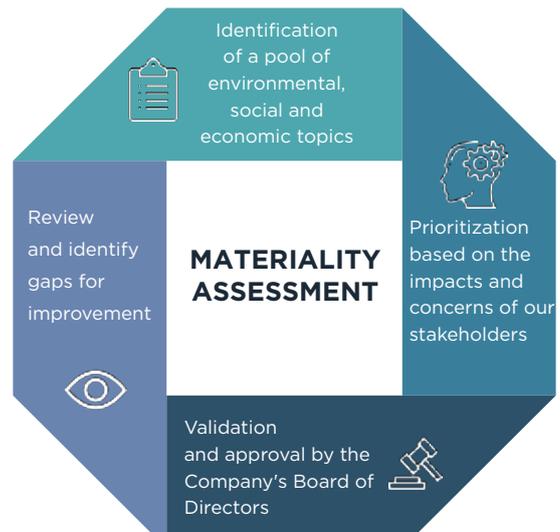
AAC Technologies works closely with its stakeholders on sustainability and constantly engage with them regarding their views on our sustainability actions and performance through multiple channels and platforms including annual reports, sustainability reports, surveys, regular dialogue and meetings. We seek to identify the sustainability-related topics that are material to both the Company and stakeholders, striving to maximise positive and minimize negative impact on those areas through collaborative efforts. For details of the key engagement topics and channels, please visit the stakeholder engagement section on our website.

**Materiality assessment**

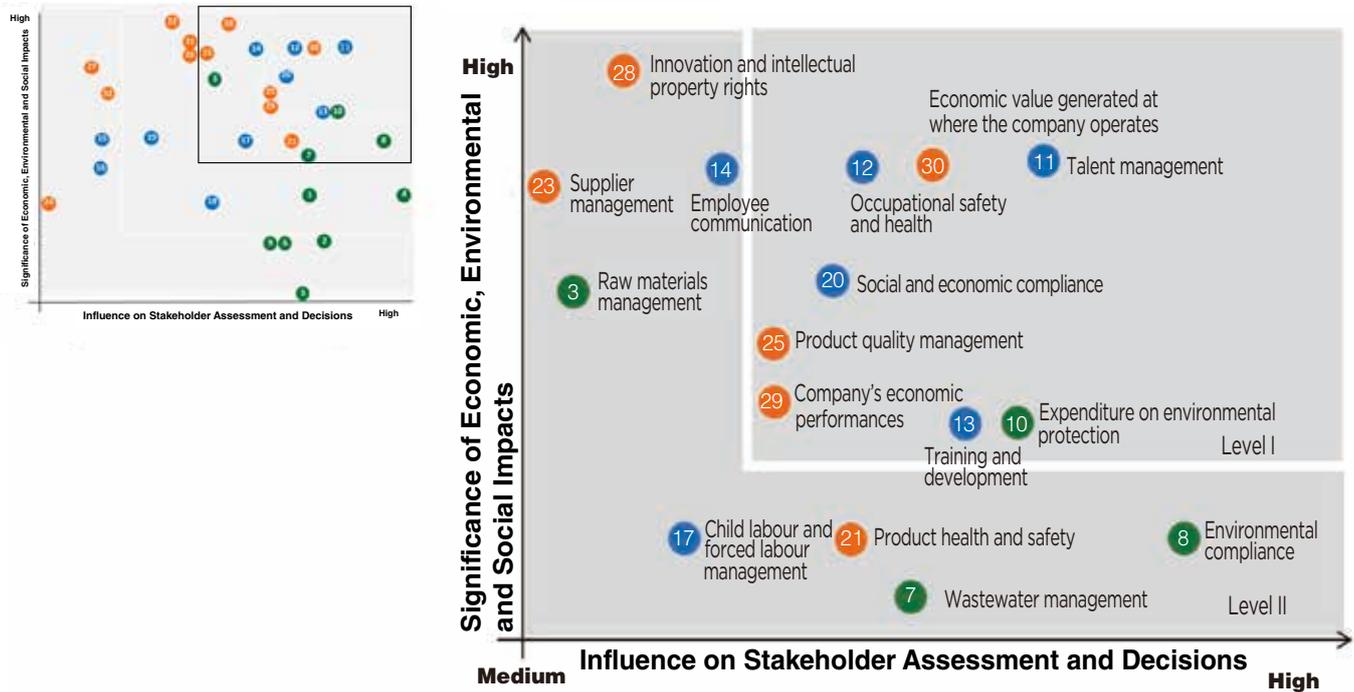
Understanding what issues matter for the Company and our stakeholders is crucial for us to make appropriate and targeted actions in improving our sustainability performance.

With reference to the HKEX ESG Reporting Guide and the GRI Sustainability Reporting Standards, together with intensive research and peer analysis, a list of 32 sustainability issues was selected as potential material topics. The Company reviews these topics regularly and adjust the list according to new developments in the industry and the Company.

Following the process of identification, prioritization, validation and review, we prioritised these topics in 2018 through a materiality exercise that involved extensive and thorough examination and evaluation of our impacts as well as our stakeholders’ concerns. The list of material topics is unchanged in this year’s report as they are still relevant for the Company in 2019.



<sup>2</sup> List of applicable laws and regulations available in “Laws and Regulations”.



Level I	Level II	Level III	Level IV
<ul style="list-style-type: none"> <li>11 Talent management</li> <li>30 Economic value generated at where the company operates</li> <li>12 Occupational safety and health</li> <li>20 Social and economic compliance</li> <li>25 Product quality management</li> <li>29 Company's economic performances</li> <li>10 Expenditure on environmental protection</li> <li>13 Training and development</li> </ul>	<ul style="list-style-type: none"> <li>14 Employee communication</li> <li>28 Innovation and intellectual property rights</li> <li>23 Supplier management</li> <li>3 Raw materials management</li> <li>8 Environmental compliance</li> <li>21 Product health and safety</li> <li>7 Wastewater management</li> <li>17 Child labour and forced labour management</li> </ul>	<ul style="list-style-type: none"> <li>22 Data security and customer privacy management</li> <li>19 Human right protection</li> <li>18 Community relations</li> <li>1 Energy management</li> <li>4 Waste management</li> </ul>	<ul style="list-style-type: none"> <li>27 Conflict minerals management</li> <li>32 Anti-competitive behavior management</li> <li>15 Anti-discrimination</li> <li>16 Diversity and equal opportunity</li> <li>24 Product sales and labelling</li> <li>9 Green product management</li> <li>6 Air emission management</li> <li>2 Water management</li> <li>5 Greenhouse gases management</li> </ul>
<b>Legend</b> ● Environmental issues ● Social issues ● Operational and economic issues			

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. 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.

For each topic covered by our sustainability strategy, we identify the risks and then deploy programs to manage these risks. This includes defining policies, deploying certified management systems, implementing industry standards, supporting evaluation and auditing tools.

## Responding to Stakeholders' 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 managing our impacts	Corresponding section
Expenditure on environmental protection		Increase in regulatory scrutiny and inspection, adding on to our compliance cost	<ul style="list-style-type: none"> <li>We conducted annual soil and groundwater monitoring for factories with higher risk of heavy metal pollution with respond to the Soil Pollution Prevention and Control Law of the People's Republic of China ("PRC") which has become effective in 2019</li> <li>We applied for and renewed emission permits in accordance with the renewal schedule of regulatory agencies to ensure wastewater discharge compliance with response to the gradual implementation of China's Administrative Measures for Pollutant Emission Permitting (on trial).</li> </ul>	<a href="#">Managing Environmental impacts</a>
Occupational safety and health		Potential legal proceedings resulting in adverse publicity	<ul style="list-style-type: none"> <li>Our digitised EHS platform was launched, facilitating reporting and communication among EHS manager, fire and chemical safety engineers and safety personnel, as well as minimisation of errors and improved efficiency of safety management</li> </ul>	<a href="#">Managing Safety Risks</a>
Talent management		Recruiting, retaining and developing new talent, and harnessing the existing talent of our employees will allow us to deliver our promise. Failure on this could hamper our ability to deliver.	<ul style="list-style-type: none"> <li>Actively talent acquisition strategy to capture and attract graduates and high-end talents, through utilizing the talent pool and building professional recruiting team</li> <li>Improved promotion ladder of manufacturing engineer, developing advanced capabilities that aligns with our corporate strategy</li> </ul>	<a href="#">Talent Management</a>
Training and development			<ul style="list-style-type: none"> <li>The triple-channel system is further divided into multiple career pathways according to job positions, with specialized training and promotion opportunities to employees in different fields and professions</li> <li>Annual talent review and performance tracking system helps to evaluate employee performance, identify training needs, boost work motivation and eventually increase productivity</li> </ul>	<a href="#">Training &amp; Development</a>
Social and economic compliance		Reputational damage due to noncompliant or negligent corporate action	<ul style="list-style-type: none"> <li>We provide social compliance training to the recruitment team on Responsible Business Alliance (RBA) regulations, labour rights, methods of identifying and reporting child labour, and laws applicable to the Company etc. to watch against child labour.</li> <li>In 2019, 77 suppliers were evaluated for their performance in accordance with our supplier code of conduct</li> </ul>	<a href="#">Operational Excellence</a>
Economic value generated		Loss of environmental and social licence to operate	<ul style="list-style-type: none"> <li>Continuous subsidy to Teach for China in supporting the education of teenagers in rural China</li> </ul>	<a href="#">Community Care</a>
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.	<ul style="list-style-type: none"> <li>We make use of big data to realise real time monitoring, investigate anomalies, perform data analysis and generate reports such as laboratory reliability report, defective product analysis report, etc., which helps improve our product defect rate close to zero.</li> </ul>	<a href="#">Operational Excellence</a>

## Aligning UN SDGs

SDGs is a set of global goals set by the United Nations, which consists of 17 goals and 169 targets in global sustainable development priorities. With an ultimate aim in resolving these global challenges by 2030, the involvement of the private sector in collaborative initiatives are vital to bring progress. Believing that our company has a key role to play on this global agenda, 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 strategy develops, we continue to direct our efforts on SDGs that benefit our surrounding communities and environment.

SDG	Specific target	Our initiatives
	<ul style="list-style-type: none"> <li>Target 4.6 - ensure all youth are able to achieve literacy and numeracy.</li> </ul>	<ul style="list-style-type: none"> <li>Subsidise Teach for China, a non-profit education program, targeting the underprivileged teenagers located in rural China</li> </ul>
	<ul style="list-style-type: none"> <li>Target 6.3 - reduce pollution</li> <li>Target 6.4 - improve water efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Actively explore water-saving and water reuse initiatives, ensure effective operation of wastewater treatment facilities for meeting emission standards</li> </ul>
	<ul style="list-style-type: none"> <li>Target 7.3 - improve global energy efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Establish energy management systems and online monitoring systems</li> <li>Explore the energy-saving initiatives and the opportunity in renewable energy application</li> </ul>
	<ul style="list-style-type: none"> <li>Target 8.2 - achieve higher levels of productivity through technological upgrades</li> <li>Target 8.6 - promote youth employment</li> <li>Target 8.7 - take immediate and effective measures to eradicate forced labour and end child labour in all its forms</li> <li>Target 8.8 - protect labour rights and promote safe and secure working environments for all workers</li> </ul>	<ul style="list-style-type: none"> <li>The triple-channel career development system offers opportunities for our employees</li> <li>Provide social compliance training to the recruitment team on RBA regulations, labour rights, methods of identifying and reporting child labour, and related child labour laws applicable to the Company</li> <li>Evaluate the labour risk of the Company annually and implement appropriate measures for preventing and monitoring such risks</li> <li>Conduct occupational hazard evaluation and revise the list of jobs with potential health hazards regularly, and arrange annual health checks for our employees</li> </ul>
	<ul style="list-style-type: none"> <li>Target 9.5 - enhance scientific research and upgrade technological capabilities of industrial sectors.</li> </ul>	<ul style="list-style-type: none"> <li>Devote significant resources to R&amp;D to expand our technology roadmaps</li> <li>Encourage innovation by providing rewards to inventors</li> </ul>
	<ul style="list-style-type: none"> <li>Target 12.4 - achieve the environmentally sound management of chemicals and all wastes throughout the lifecycle of the products</li> <li>Target 12.5 - reduce waste generation</li> </ul>	<ul style="list-style-type: none"> <li>Undertake the Zero Waste to Landfill project</li> <li>Implement a number of hazardous waste reduction projects</li> </ul>
	<ul style="list-style-type: none"> <li>Target 13.1 - strengthen capacity for addressing and adapting climate-related disasters and natural disasters.</li> <li>Target 13.3 - improve its ability to raise awareness on need for climate change mitigation, adaptation and impact reduction.</li> </ul>	<ul style="list-style-type: none"> <li>Align our climate disclosure with the international guidelines, analyse the climate change risks and opportunities we face, assess related impacts, and develop response strategies</li> <li>Shenzhen plant has established a carbon reduction target of generating its annual carbon emission 5% lower than the government quota in 2018-2022</li> </ul>
	<ul style="list-style-type: none"> <li>Target 16.5 - substantially reduce corruption and bribery in all forms</li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>

# Talent Management



Talents are the future of the Company. Cultivating a professional workforce with strong capabilities is fundamental for us to be innovative and competitive, equipping ourselves for the vibrant transformation of the industry in the long-term.

Average training hours



19.1

↑ 15% yoy

Work-related Injuries per 1,000 workers



1.75

↓ 0.44 yoy

## Building a Future-Proof Workforce

Our talent management strategy is to strive to gather and build a future-proof workforce that can lead the Company forward. At AAC Technologies, we manage our human capital throughout the entire HR life cycle including acquisition, training, development and retention, by a focused management approach. That is to ensure the Company is responding swiftly to the changing key knowledge and skills needed given the fast-paced technological development in the industry.

### Talent acquisition

Our talent acquisition strategy aims to attract the top talents from the market as well as universities. Believing that young talents bring new thoughts and perspectives to our business, we actively reach out to upcoming graduates at an early stage through career fairs and information sessions. Besides introducing the Company, we start engaging potential talent by giving a complete picture of career prospects and welfare packages, as well as learning their aspiration. Continuous cooperation with universities on research collaborations and sponsoring school events also enable us to target particular types of young talents that suit our business, for example on R&D and big data digital information technologies related aspects.

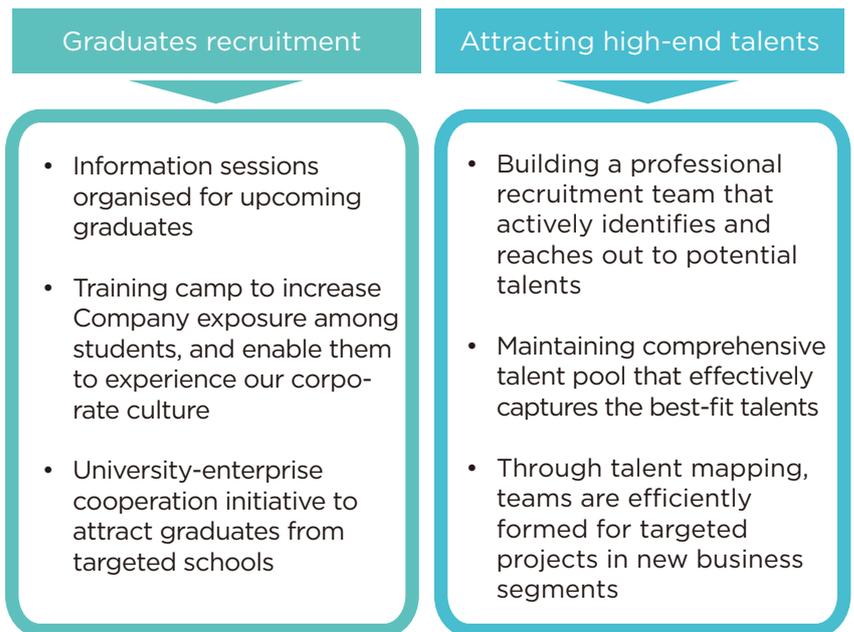
Aligning with corporate development strategy, our talent acquisition system provides detailed talent mapping and analysis which helps identify talent needs for targeted projects that require specific expertise. We fully use our talent pool and recruitment team to capture and attract the best-fit talents on-board. The system also monitors the entire recruitment process in order to continuously improve recruitment methods and efficiency.

Retaining the young employees is a challenge to the Company. We conducted analysis on graduate employees' reasons for resignation, in order to identify the main factors that

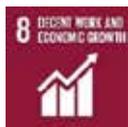
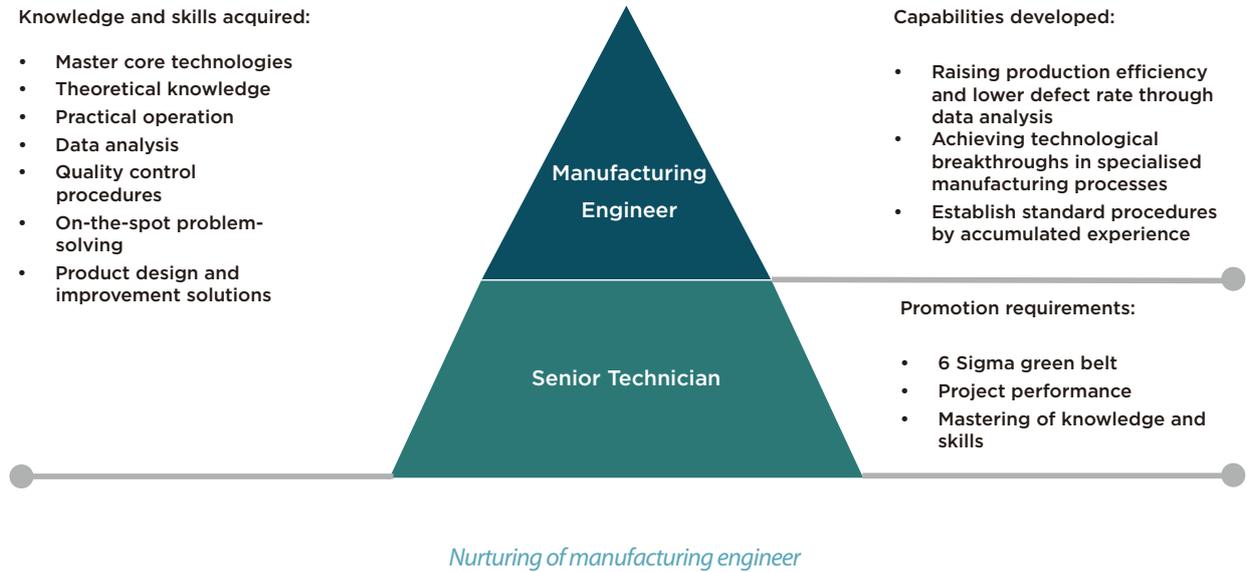
affect their work satisfaction and implement effective retention strategies. To keep a check on their mental health, we maintain regular individual meetings with graduate employees. The Company continues to build up on its career development pathways, training plans, employee management systems and welfare policies to retain talents.

### Nurturing the next generation of engineers

To achieve the strategic goal of transforming ourselves into a manufacturer using highly automatized and intelligent equipment and methods, we strive to nurture a team of professional practitioners of big data digital information and precision technologies. We have extended the manufacturing engineer programme to both graduates and senior technicians, selected and trained according to their respective specialties and capabilities and demand from each of our business segments. The curriculum not only provides extensive training on theoretical and practical knowledge but also focuses on advanced skills including on-the-spot problem-solving, product design and improvement etc.



Promotions of manufacturing engineers are based on evaluation of project performance and mastering of knowledge and skills. All engineers are required to pass the 6 Sigma green belt and are encouraged to obtain black belt certification. Such training recalibrates our team into one that continues to innovate and seek breakthroughs in our core technologies. The capabilities upgrade of our talents paves the way for evolution of our production processes and product quality, laying a solid foundation for smart manufacturing.



Our commitments and programs as described above contribute to:  
Target 8.6 – promote youth employment

## Striving for Employee Satisfaction

Building and supporting a motivated team is essential for the Company to achieve its strategic goals. We empower employees with diverse training and promotion opportunities, strengthen employee communication and provide competitive welfare and benefits.

### Training and development

It is our aim to bring out the best in employees which drives the growth of the Company as well as its employees. The training management system covers all stages and positions of employees’ career paths, from induction training, professional skills development to senior leadership training. In 2019, the Company provided a total of 752,225 hours of occupational training to employees. The average training-hour per person was 19 hours, which was a 15% increase from 2018.



Employee training hours

	Training person-times	Total training hours	Average training hours
<b>Manufacturing</b>	234,081	587,911	18.8
<b>Non-manufacturing</b>	2,933	9,687	4.3
<b>Management</b>	70,737	154,628	26.5
<b>Total</b>	307,751	752,225	19.1

Induction training sessions on multiple topics are organised to help new employees familiarise with our corporate culture and working environment, which includes Company values, corporate social responsibility, information security, career development pathways, etc. Fresh graduates are guided by experienced mentors on adapting to their job positions and assessing performance at the end of probation period.

The triple-channel career development system offers opportunities for employees to enhance their knowledge and skills and excel in their professional fields. The channels are further divided into multiple career pathways according to job positions, with defined responsibilities, skills required, key performance indicators and promotion prerequisites. The system is useful in identifying talents that best suit the positions. We encourage employees to develop their careers through finding their suitable channel.



A performance tracking system was established during the year to motivate employees through goal setting and performance benchmarking. Goals and indicators are set for each product line and project. Employees are rewarded for excellence in performance and innovative ideas that help yield either product or productivity improvement. The performance tracking system allows efficient performance evaluation, as well as effective identification of training needs through analyzing employee performances in a systematic manner. More frequent discussions on employees’ performances also stimulate self-reflection and continuous improvement.

For senior engineers and directors who are at the middle management level, we offer continuous training programmes focusing on development of their abilities on strategic innovation, organisational management, team management and leadership etc. Partnering with Nanjing University Business School and China Europe International Business School, the programme cultivates professional and forward-looking leaders which is important for succession planning and maintaining a stable organisational management.

Under our training management system, the human resources department makes annual training plans and talent cultivation strategy, maintains a team of lecturers and diverse training resources internally and evaluates the effectiveness of the training. For our new optics business, training needs are immediately identified at the production line when technical issues are discovered. Subsequent training includes related testing technologies and management capability. In line with our operation in Vietnam, language courses are also organised for employees in order to break the language barrier and smoothen internal communication. During the year, we introduced 6S management method, encouraging employees to improve the overall work efficiency through sorting, organising and cleaning the workplace.

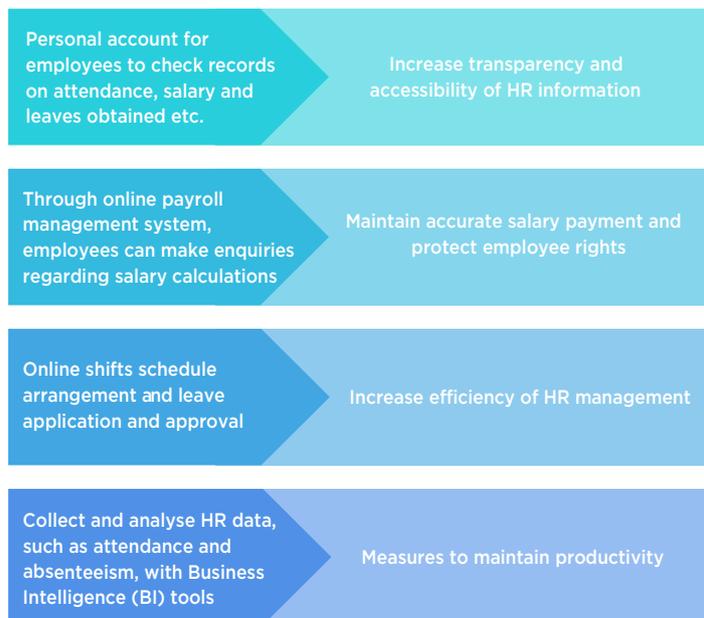
Trainings are evaluated at all stages including planning, course design, implementation and effectiveness in meeting the objectives. In addition to examination and feedback from employees, we assess employees' performance to check for improvements.

**Big data digital information at the core of human capital management**

Big data digital information drives evolution of the industry and creates opportunities for fostering more efficient communication with employees on HR matters, which is important for maintaining productivity. A cloud-based human capital management system has been launched at our sites in China and Vietnam during the year. Employees and managers are able to complete various HR related procedures, including taking attendance, applying for leave, making enquiries on salary payments and arranging shifts schedules etc., anytime at their convenience.

HR data collected through the system constitute an important reference for effective talent management. Time and manpower saved in managing administrative procedures not only allows efficient use of resources but also prevents human error and hence improve employee satisfaction.

*Functions and aims of cloud-based human capital management system*



Our commitments and programs as described above contribute to:  
 Target 8.2 – achieve higher levels of productivity through technological upgrades

### Mitigation of risk on labour management

With 39,385 employees working at AAC Technologies, it is essential to understand and respond to their concerns. In Vietnam, there are established policies where our management team may activate the emergency response center in the event of a labour strike. To resolve the issue, we investigate and understand the root cause and grievances through dialogues with employees, before offering feasible solutions. The entire process is conducted under the principle of mutual respect and non-violence.

Our grievance redressal mechanism provides an effective platform for employees to report on any issues encountered in the workplace to the human resources department, CSR department or internal audit department, through multiple channels including email, text messages, WeChat and a scan of QR code. The investigation process is conducted in close communication with the complainant and results lead to suitable corrective actions, with the rights and privacy of the complainant protected throughout the complaint handling process. Retaliation in any form is prohibited.

### Welfare and benefits

Welfare and benefits are provided according to laws and regulations in countries and regions where we operate. Our remuneration strategy is aligned with talent retention policy. Standard of annual remuneration adjustment is based on nature of position and performance.

We uphold the principle of equality as we take care of employees' well-being, including but not limited to gender equality. During the year, work arrangement and break time was adjusted for pregnant employees. Breastfeeding rooms are set up for nursing mothers, with breastfeeding time allowed each day. Male employees also enjoy legal paternity Leave. We provide financial assistance to employees with serious illnesses.

The Company organises activities for employees to facilitate relaxation which include badminton competition, baking lessons, health talks, festive celebrations and excursions etc. Employees are encouraged to maintain a healthy lifestyle and practice continuous learning through the activities.



#### *Employee satisfaction survey*

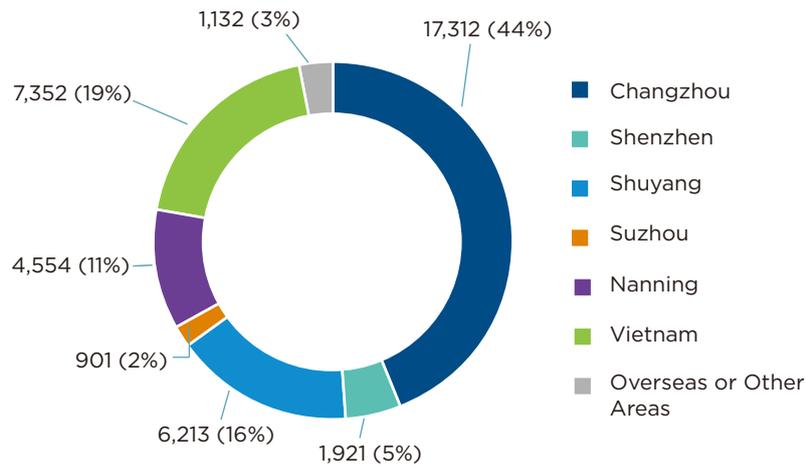
The Company conducts regular employee satisfaction surveys across our sites in China to collect feedback. The survey covers six main aspects, including work arrangement, salary and welfare, accommodation and catering, training, communication as well as engagement. Over 4,000 employees from Changzhou, Shuyang, Nanning and Suzhou participated in the survey. Each site draws and implements improvement plans based on the results, such as upgrading the quality of catering services by inviting employees to tasting sessions at the canteen.

## Our Workforce

As of 31 December 2019, the Company had a total of 39,385 employees. The overall average proportion of male to female employees was maintained at 63:37. Around 80% of our employees were located in China, with Changzhou and Shuyang accounting for 44% and 16% respectively of the total. Majority of the overseas employees were at Vietnam, taking up 19% of the total. 79% of the Company’s employees are production workers, while 6% were non-manufacturing staff and 15% were management executives.

Mechanics and operators took up 34% and 50% of the total employees, which also forms the majority in the manufacturing function. Half the manufacturing employees were below age 30. There were altogether 4,177 R&D staff and technicians which represented a 5% increase from 2018. Approximately 43% of employees have degree level qualifications or higher.

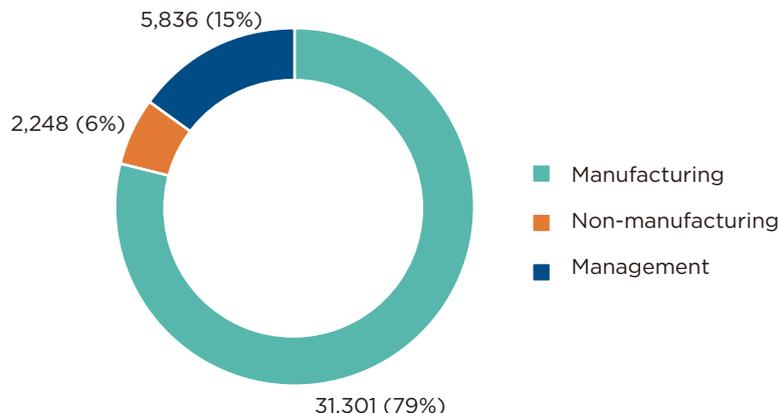
### Geographical distribution



### Employee distribution by gender

	Changzhou	Shenzhen	Shuyang	Suzhou	Nanning	Vietnam	Overseas or other areas	Total
<b>Male</b>	11,943 (30.3%)	1,335 (3.4%)	4,141 (10.5%)	640 (1.6%)	2,650 (6.7%)	3,251 (8.3%)	823 (2.1%)	24,783 (62.9%)
<b>Female</b>	5,369 (13.6%)	586 (1.5%)	2,072 (5.3%)	261 (0.7%)	1,904 (4.8%)	4,101 (10.4%)	309 (0.8%)	14,602 (37.1%)

### Employee distribution by business function



Employee distribution by age, education and profession

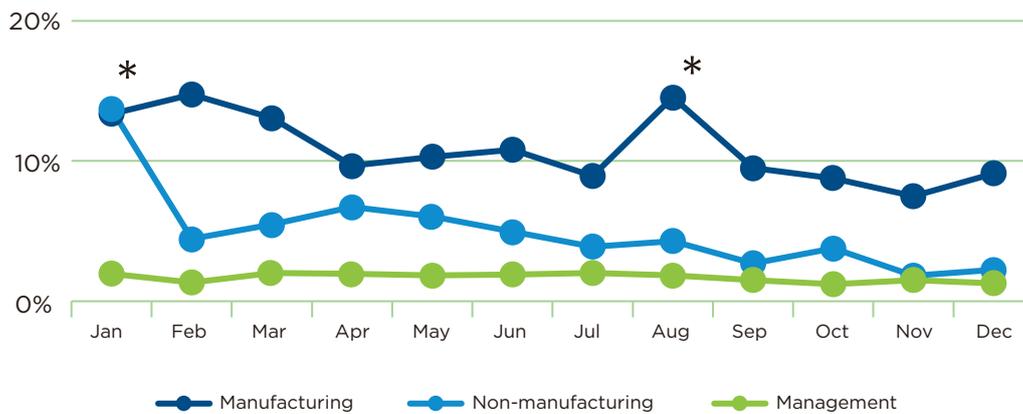
	By Age				By Education		By Profession				
	<30	31-40	41-50	>50	Degree or above	High School or below	Management	R&D	Technicians	Mechanics	Operators
<b>Manufacturing</b>	19,479 (49.5%)	10,365 (26.3%)	1,385 (3.5%)	72 (0.2%)	10,628 (27.0%)	20,673 (52.5%)	N/A	N/A	179 (0.4%)	12,769 (32.4%)	18,353 (46.6%)
<b>Non-manufacturing</b>	705 (1.8%)	973 (2.4%)	466 (1.2%)	104 (0.3%)	735 (1.9%)	1,513 (3.8%)	N/A	126 (0.3%)	126 (0.3%)	625 (1.6%)	1,371 (3.5%)
<b>Management</b>	3,159 (8.0%)	2,233 (5.7%)	350 (0.9%)	94 (0.2%)	5,628 (14.3%)	208 (0.5%)	2,090 (5.3%)	1,518 (3.9%)	2,228 (5.7%)	N/A	N/A
<b>Total</b>	23,343 (59.3%)	13,571 (34.4%)	2,201 (5.6%)	270 (0.7%)	16,991 (43.2%)	22,394 (56.8%)	2,090 (5.3%)	1,644 (4.2%)	2,533 (6.4%)	13,394 (34.0%)	19,724 (50.1%)

Employee turnover rate

In 2019, average monthly turnover rates for manufacturing, non-manufacturing employees and the management were maintained at 10.9%, 5.0% and 1.7% respectively.

By Age				By Gender		By Business Function		
<30	31-40	41-50	>50	Male	Female	Manufacturing	Non-manufacturing	Management
30,311 (11.9%)	8,539 (5.4%)	954 (3.5%)	134 (3.4%)	24,824 (9.1%)	15,114 (8.9%)	37,241 (10.9%)	1,517 (5.0%)	1,180 (1.7%)

Employee monthly turnover rate



\* Turnover was higher since workers chose to leave their positions and returned to their hometowns for festive seasons.

The monthly turnover was higher in August for manufacturing function and on January for non-manufacturing function, particularly for the site in Nanning. This is due to the local customs in Guangxi Province that more workers prefer to leave their positions and return to their hometowns for festive celebrations. We have been strengthening the support on human resources management system in Nanning, so to gradually adapt and respond to the cultural difference locally. To improve employee retention, we collect and analyse types of turnover and the reasons behind. 92.3% of employees left by voluntarily resignation, while the remaining 2.3% left by agreement with the Company and 0.2% due to contract termination.

## Regulatory Compliance

AAC Technologies complies with all applicable labour laws and regulations in countries and regions where it operates. As a company that values diversity and equal opportunity, discrimination and harassment against employees on their contract type, ethnicity, gender, religion and disability etc. are strictly prohibited. All employment procedures and talent management policy are implemented in a respectful and fair manner. The Company protect employees' rights in the workplace in accordance to relevant laws. We carry out disciplinary procedures and penalties on discriminatory acts as stipulated on our Code of Conduct.

The Company does not tolerate the use of child and forced labour, and, is committed to protecting 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. We evaluate the labour risk of the Company annually and implement appropriate measures for preventing and monitoring such risks. In addition to stringent document checking and interviewing procedures at the hiring stage, a big data analysis approach is adopted. Facial recognition systems are installed at our sites, connected to our database, to verify workers' identities. We provide social compliance training to the recruitment team on RBA regulations, labour rights, methods of identifying and reporting child labour, and related child labour laws applicable to the Company.

We are also 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. Employees' rights to unionise and right to collective bargaining are respected by the Company. We do not allow any discrimination and retaliation against employees because of membership and participation in union activities.

Some of our manufacturing sites have passed CSR audits by customers as well as other external auditors such as RBA audit. During the year, the Company was not aware of any violations of any laws and regulations related to remuneration and dismissal, recruitment and promotion, working hours and equal opportunities, anti-discrimination and other treatments and benefits, which had a significant impact on the Company. We are not aware of any incidents of human rights infringement or use of child and forced labour during the reporting year.



Our commitments and programs as described above contribute to:

Target 8.7 - take immediate and effective measures to eradicate forced labour and end child labour in all its forms

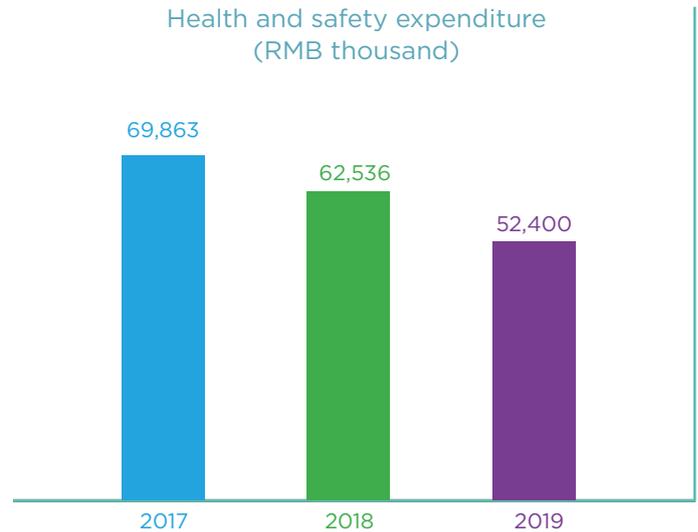
## Managing Safety Risks

Safety first is one of our core values. The Company understands the key to living this value is to maintain a high level of safety regardless of diversification of employees, facilities and technologies across our operations that are expanding globally. All of our production sites in Shenzhen, Changzhou, Shuyang, Suzhou, Nanning and Vietnam have attained the OHSAS 18001 certification, and we must strive to provide education and training to employees to be able to put fundamental safety initiatives into practice, promote the safety culture, and introduce new safety technologies.

During the year, a digitised Safety Management System has been taken up for implementation, enabling more transparent and yet stringent management of chemicals, fire prevention, occupational health, emergency, etc.

### Digitised EHS platform

Key safety control points are monitored and managed through this platform, including the punch-in for safety inspection and chemicals management. This facilitates reporting and communication among EHS manager, fire and chemical safety engineers and safety personnel, as well as minimisation of errors and improved efficiency of safety management in production.



This year, we have collaborated with the China Academy of Safety Science and Technology, a non-profit scientific research institute affiliated to the State Administration of Work Safety, for conducting an enterprise-wide occupational health and safety assessment. Although a detailed report has not been published at the time of preparation of this report, we will follow up on the recommendations and seek ongoing improvement.

The Safety Management Committee is responsible for supervision on occupational safety matters. During the year, we recorded zero cases of occupational disease and we were not aware of any non-compliance with laws and regulations having a significant impact on the Company relating to occupational health and safety.

### Chemical management

We have in place a management approach to hazardous chemicals which states the entire procedure of handling chemicals specifically and adherence is evaluated on an annual basis. Implementation of the digitised platform this year has strengthened our management approach further, ensuring a more systematic approach to application of chemicals. From procurement, inbound logistics, storage, to usage, all chemicals are kept under tight scrutiny and approval, with clear user instructions and MSDS record keeping.

### Raising safety awareness

Cultivating a strong safety culture has always been pivotal. In 2019, we evaluated the effectiveness of our safety training management approach. Firstly, we have made it a performance indicator for the management responsible for operations and safety management to receive training of not less than 32 hours in their first year and 12 hours on an annual basis subsequently, ensuring they possess adequate know-how and capability on safety in production. Secondly, we have expanded the safety training for new employees into three tiers, from company-level, facility-level to production line-level, a total of 24 hours, subject to performance assessment. Any non-conformance has to be reported to immediate supervisor and HR department.

In addition, each department is responsible for its internal safety training. Training contents are designed for employees with specific positions and levels. We have continued to refine and improve our training materials. This year, we started producing safety videos and using them as teaching materials in addition to our regular EHS internal newsletter for the provision of information on safety issues and case studies.

In June, our annual “Safety Production Month” was organised when training and awareness raising initiatives were conducted, in particular for positions with specific hazards, management and company-wide. The objective is simple – ingrain safety awareness into employees’ minds and cultivate safety behaviour in daily operations. During the year, 94,337 person-times received safety training for a total of 141,506 hours.



Not only do we manage safety hazards our employees face, we also extend our responsibility to our contractors by engaging them with our safety management approach. Any non-conformity identified at contractors’ operations will be fined.

Regular fire drills and chemical spill drills are conducted to strengthen our ability to address any emergency and preparedness in daily operations, and to enhance employees’ knowledge on hazardous chemicals management, as well as machinery and fire safety precautions. During the year, we organised a series of fire drills at operations in different locations to strengthen awareness of the need for preventing fire occurrence, as well as to strengthen the capability to respond to emergency situations.

During the year, the number of workdays lost due to work-related injuries was recorded at 2,861 days. Majority of safety incidents involve injuries due to mechanical equipment, traffic and other accidents. We have improved the provision of proper tools for machinery operations and strengthened the training on safe equipment operation. We have been conducting road safety training and education to raise employees’ awareness in this aspect.

Safety inspection is a key measure for eliminating health hazards. We conduct monthly specialised safety inspections, scheduling different areas and production procedures for joint inspection by related departments. Each department is responsible for its own regular safety inspections and implementation of corrective measures, allowing a quicker response to safety incidents. Safety officers are responsible for bringing employees’ feedbacks directly to the heads of department during the monthly safety management committee meeting, as well as participating in monthly safety inspections, identifying safety concerns and assisting in corrective measures.

Regrettably, a fatal traffic accident had occurred in June 2019 outside the Company's premises, causing the death of one employee. During lunch-time when she was off-work, a van crashed into her motorcycle. The cause was due to the negligence of the van driver in observing the road situation. Following analysis of the direct causes, the Company completed counter measures planning including strengthened internal communications on safety behaviour when driving motorcycles. These precautions are now being implemented in other factories. We believe that establishing a deep-rooted safety culture throughout the Company, especially road safety culture, is a part of our long-term mission.

## Preventing Occupational Diseases

The Company has developed an Occupational Health Management Procedure to protect its employees from safety hazards and prevent occupational diseases. We conduct occupational hazard evaluation and revise the list of jobs with potential health hazards regularly. Job transfers are arranged when some employees' health situation or the level of risks so demand.

One of the major occupational hazards is the noise nuisance during production. Vibration damping pads of sound-absorbing cotton have been installed to lower the noise exposure. To protect employees from safety hazards and prevent occupational diseases, a management approach on personal protective equipment is in place to strengthen the management of the distribution of protective equipment. We developed standards for the distribution of personal protective equipment, ensuring employees are equipped with respective protective equipment in accordance to their job post. We also ensure the protective equipment meet the standards and are used appropriately by the employees.

We arrange annual health checks for our employees to identify and eliminate any occupational health issues in advance. It is required for employees who are exposed to hazardous factors to receive health assessments before they report to duty, during the employment and before they leave the post. More comprehensive health checks are arranged for employees with abnormal results. Their 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 42,655 person-times, while annual health checks for existing employees was 6,366 person-times.

### Epidemic prevention and control

To prevent the spread and protect our employees from the pneumonia outbreak of novel coronavirus disease (COVID-19), we developed several guidance and notices to deliver necessary information on the preventive measures and relevant arrangement. In each of our operational sites, we urgently set up an operating group responsible to the prevention and control of the novel coronavirus infection in which to improve our ability in coping with the epidemic, to ensure the adoption of various preventive and control measures in a timely and effectively manner aiming to achieve "early detection, early report, early isolation and early treatment". Our emergency response team is also in place to manage and take care of suspected cases with fever and respiratory symptoms, according to our emergency response plan for potentially-infected person.

To protect employees' health and ensure environmental hygiene, we adopted a series of preventive measures in our operational sites in mainland China. We also strengthened our management on dormitory hygienic controls requirements, to reduce the concentration of personnel and curb the spread of the epidemic. Regular inspections were conducted in the workplace and office areas to closely monitor the related epidemic prevention and control measures.



To further ensure a healthy and safe workplace, we provided free PCR viral nucleic acid detection service for all employees. Besides providing our employees with free epidemic-preventive equipment, their family members were offered to purchase masks at cost price to effectively alleviate the problem of lack of supplies. We also provided all employees and their immediate family members with epidemic insurance to ensure that they will receive compensation if their health were affected by the epidemic.

- Provide employees with epidemic-preventive equipment, such as disinfecting wipes and masks and check the body temperature when entering and leaving.
- Increase frequency of cleansing and disinfection of the facilities. And plan the use time reasonably for crowded places such as staff canteen.
- Increase the publicity and education on virus prevention and self-protection through corporate bulletin boards and staff training.
- Introduce air purifiers at offices and offer work-from-home options.
- Strengthen the control of visitors and vehicles. Visitors are required to make prior reservation and fill in the journey tracking record for the past 14 days before entering the operational sites.



Our commitments and programs as described above contribute to:  
Target 8.8 – protect labour rights and promote safe and secure working environments for all workers

# Managing Environmental Impacts



As our production platform has undertaken gradual transformation towards automation and digitalization, the Company's environmental management strategy needs to be more proactive, so that we can identify environmental risks and deploy mitigation measures in advance, enabling us to be a frontrunner in contributing to environmental protection.

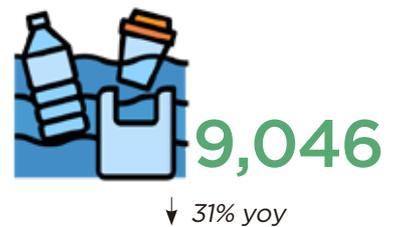
GHG emissions intensity  
(tCO<sub>2</sub>e/ ten thousand  
revenue)



Renewable energy consumption  
(kWh)



Non-hazardous waste  
(tonnes)



## Strengthen Environmental Risk Prevention

As our business expands, new production plants are being put into operation. It is necessary that we begin our environmental management plan at an early stage, undertaking environmental impact assessments and ensuring the design of these new projects are complied with the applicable rules and regulations. For the existing production plants, we have commissioned an independent third-party to conduct evaluation on our environmental management performance and identify areas for ongoing improvements.

In 2019, the Company called upon a group of experts for an onsite meeting studying the improvement areas for electroplating enterprises on environmental management. We also conducted consultation meetings on wastewater treatment projects which help provide guidance for how we continue to improve our own initiatives.

Supporting the implementation of national environmental governance initiatives, we engage regularly with local environmental regulatory agencies by participating in training so that we can keep abreast with the latest revision of relevant laws and regulations and take action in a timely basis in respond to these changes.

With the Soil Pollution Prevention and Control Law of the PRC became effective in 2019, we conducted annual soil and groundwater monitoring for factories with higher risk of heavy metal pollution, as well as gathered relevant environmental data from other factories. In addition, we applied for and renewed emission permits in accordance with the renewal schedule of regulatory agencies to ensure wastewater discharge compliance with response to the gradual implementation of China's Administrative Measures for Pollutant Emission Permitting (on trial).

We have been examining the feasibility and efficiency of applying the latest environmental technologies to the Company's production facilities. And when designing emission treatment solutions and procuring environmental protection equipment, we are able to adopt more advanced technologies in our production process, achieving higher environmental standards and more long-term benefits.

During the year, the Company was not aware of any violations of any laws and regulations related to the emission of gas and greenhouse gases, the discharge to the water or land, and the generation of hazardous or harmless waste, which had a significant impact on the Company.

## Environmental Management

Facing the swift changes in the industry and policy environment, AAC Technologies' environmental management philosophy has gradually transformed from "passive" to "active". We implemented a number of internal supervision projects, including ISO14001 environmental management system, chemical safety, hazardous waste, production equipment, engineering construction processes. For the emissions performance of each factory, we conduct environmental monitoring for the entire factory at least once a year and regularly conduct third-party testing according to the regulatory requirements.

Our Environmental Management Department, as the supervision unit of the Company's environmental efforts, is responsible for guiding and supervising existing factories to implement appropriate environmental protection measures effectively. It also closely communicates with the management personnel of newly-built factories, supervising the construction and acceptance of environmental protection installations. We have also started undertaking cleaner production audits and applying for green production certification for some of our key production facilities. During the year, two factories in Changzhou of the Company have completed the compilation of clean production audit reports. All our major production facilities have obtained ISO14001 environmental management certificate.

## Our Pledge of Zero Waste to Landfill

As the control of waste has become increasingly stringent in China, it is critical for the company to take a step forward, making its manufacturing process greener and cleaner. During the year, we have undertaken a Zero Waste to Landfill project which adheres to UL2799<sup>3</sup> standards, pledging to reduce industrial waste and achieve the target of zero waste to landfill. Through waste reduction, recycle, reuse and biochemical treatment, we are striving for zero waste sent to landfill and the proportion of waste to energy is limited to not more than 10%.

### Zero waste to landfill – waste processing



We implemented the Zero Waste to Landfill scheme at a factory in Changzhou as a pilot project. Through screening waste processing service providers, reviewing project review, identifying ways of treatment, and monitoring on an ongoing basis, we compiled and analysed data concerning the types of industrial waste generated, and monitored the waste conversion rate. The waste diversion rate<sup>4</sup> increased from 81% to 96% during the year in the pilot factory. We have also launched a Zero Waste Disposal project at our Shenzhen plant, and we look forward to expanding the scheme to more plants.

In addition to the Zero Waste to Landfill scheme, we implemented a number of hazardous waste reduction projects in 2019.

### Organic solvents reuse

Certain production process only allows one-time usage of the plastic hose. To raise resource efficiency, we select the good-quality hoses and reuse, after ultrasonic cleaning, in other production process with different requirements. For the waste organic solvents produced in the cleaning process, we separate the reusable components by distillation to reduce the generation of hazardous waste.

### Reduction in cutting fluid

We generate waste cutting fluids from our production process. We split up water and oil from it using vacuum distillation, to reduce the volume of waste cutting fluids which should be treated as hazardous waste.

<sup>3</sup> UL2799 standard is a framework for the evaluation and verification of entities that send little to no discarded material to landfills or incineration by reducing the amount of discarded material generated and diverting remaining materials from landfill and incineration.

<sup>4</sup> Waste diversion rate = weight of recycling/(weight of recycling + weight of garbage)

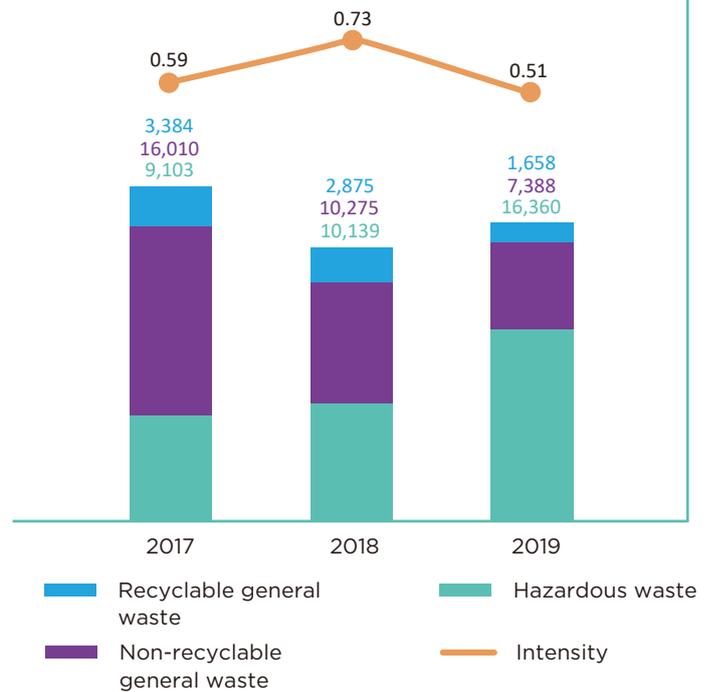
**Sludge reduction**

The wastewater treatment process of the casing production plant generates residual sludge which has water content of about 75%, causing difficulties in logistics and treatment. We use a sludge dryer to evaporate the water and condense it, so that the solid content of the sludge is raised to 90-95% which greatly reduces its volume. This technology helps reduce 336 tonnes of hazardous waste during production this year.

We have hazardous waste management and control procedure in place. Processed by accredited service provider, all hazardous waste is strictly managed in accordance with regulatory requirements from collection, storage, transfer and treatment process. Due to the adjustment of product mix and the commencement of some new production lines, the amount of hazardous waste generation has increased during the year.

General waste including metal, paper, food waste and other recyclable waste are recycled by environmental agencies. And the municipal environmental and hygiene companies collected other recyclable wastes. During the year, we have begun addition education programmes to raise employee awareness on waste recycling. Through training sessions and setting up recycling facilities, we encourage a behavioural change among employees and promote eco-friendly practices within the Company. By reducing waste at source and strengthening our recycling efforts, the volume of our general waste was reduced by 31%.

Waste generation (tonne) and intensity\* (tonnes/million RMB revenue)



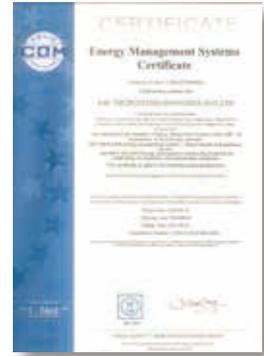
\* Excluded the non-recyclable general waste



Our commitments and programs as described above contribute to:  
 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

## Optimize Energy Structure

In 2019, AAC Technologies continues to consolidate its efforts in establishing energy management systems for its production platform. Two of our plants in Changzhou has completed the process of ISO50001 Energy Management System certification during the year. Following the establishment of a group-wide energy management system, we will be able to gradually standardize energy management policy, measurement and monitoring system, energy saving targets and solutions for each plant.



ISO50001 Energy Management System Certification

Some of our plants have already set up a comprehensive system. Led by the general manager, the energy management committee is comprised of management personnel from the energy management department, service guarantee group, infrastructure department, and administrative department. Establishing energy targets according to product type, we have set a target for micro-speakers/receivers consuming no more than 120 kg of standard coal per 10,000 (i.e. 3,517 MJ).



### Energy management process

Measuring energy usage is the foundation on how we set benchmarks, goals and monitor energy savings. We installed 89 online electricity monitoring points in several factories located in Changzhou, monitoring the real time electricity consumption and efficiency. Going forward, we plan to install more monitoring points and set up a compressed air measurement system to optimise in electricity usage monitoring further.

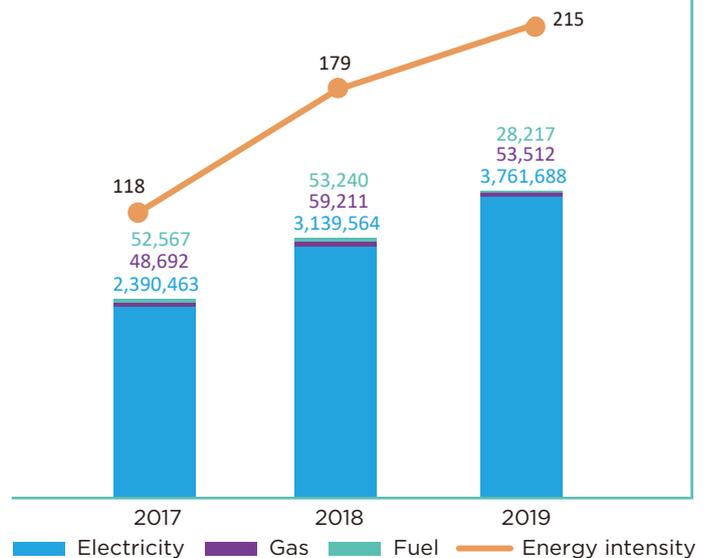
AAC Technologies continues to explore the opportunity in renewable energy application. In 2019, and the photovoltaic power generation system in the Changzhou plant commenced operation, generating more than 14 million kWh of renewable energy together with the system in Shuyang. Renewable energy accounts for over 10% of the total electricity consumption for one of our plants in Shuyang.

Various energy-saving initiatives have also been implemented during the year. First, we continue to broaden the adoption of air compressors to recover waste heat. Second, we set up energy-saving installation such as frequency transformers for existing facilities. Third, we have begun evaluating the application of smart technology in energy management for equipment and machinery, aiming to raise energy efficiency.

Air compressor waste heat recovery	Frequency conversion of air compressor system	Feasibility study of adopting smart system
<p>In Changzhou, we use the heat generated by the operation of the air compressor to prepare hot water for usage in employee dormitories.</p>	<p>We install frequency transformer for air compressors in the Shenzhen plant to reduce the power consumption of air compressors during non-peak production hours.</p>	<p>We started studying the transformation of compressed air, air conditioning and other systems at the Changzhou plant. By feeding data from the user and the external environments, the system can help regulate the operation time of these devices.</p>
<p>After the installation adopted in early 2019, the use of hot water boiler was discontinued, reducing natural gas consumption by approximately 300,000 cubic meters per year.</p>	<p>We expect to save 129,600 kWh per year after retrofitting an air compressor in 2019</p>	<p>Estimated to reduce electricity consumption by 10% -15%</p>

In 2019, our total energy consumption is 3,843,418 gigajoules, in which electricity consumption accounts for around 98%. Due to vehicle outsourcing, fuel consumption has dropped significantly compared to that of 2018. However, we recognise that the intensity of energy consumption was 215 gigajoules / RMB million revenue, which was 20% more than that of last year - an area that we need further analysis and improvement plan.

Total energy consumption (GJ) and intensity (GJ/million RMB revenue)



Our commitments and programs as described above contribute to: Target 7.3 - improve global energy efficiency

## Addressing Climate Change

Climate change is top of the global risk agenda. AAC Technologies supports UN Sustainable Development Goal 13: Climate Action. In 2019, we further align our climate disclosure with the Taskforce on Climate-related Financial Disclosure (“TCFD”) recommendations, aiming to improve transparency on how we identify risk associated with climate change.

Overview of AAC Technologies' work on addressing climate change

4. Regularly measure energy consumption and greenhouse gas emissions, and gradually establish energy and carbon emission targets at each plant

3. Identify relevant risks and carry our mitigation measures by monitoring changes in environmental laws and regulations, and regularly communicating with



1. As one of the environmental issues, climate change has been incorporated into AAC Technologies' sustainable development management system

2. Analyse the risks and opportunities brought by climate change, and assess the significance of impact with climate scenario

Our current ESG governance framework covers environmental management, climate change and it related issues such as energy consumption and greenhouse gas emissions. In combination with climate change scenarios, we analyse the climate change risks and opportunities we face, assess related impacts, and develop response strategies.

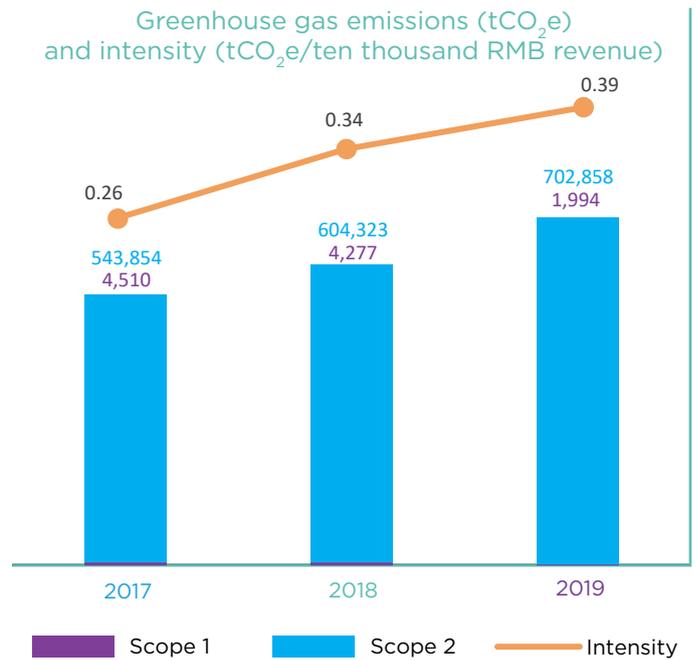
Physical risks		Transition risks		
Acute risk	Chronic risk	Policy and legal risks	Technology risk	Market risk
Increased frequency and severity of extreme weather events such as typhoons and floods may damage our production facilities and affect the transportation of raw materials and products	Prolonged period of high temperature may increase energy consumption	The government launches more policies to mitigate climate change which increase compliance cost	More low-carbon, energy-saving technologies are produced. Lagging behind may weaken our competitive edges	More customers are considering climate-related risks and opportunities, which may lead to changes in customer preference for products
Long-term	Long-term	Short-term	Long-term	Long-term
Established a natural disasters emergency plan	Established a ISO50001-certified Energy Management System and implemented various energy saving measures	Monitoring the updates of environmental laws and regulations and implemented GHG emissions accounting in advance	Examining the feasibility and benefits of applying the latest environmental technologies	Controlling the environmental hazardous materials in products and studying the application of recycled materials

China has been active in launching climate change initiative, such as the establishment of a carbon trading market. Shenzhen is already running as one of the pilot cities for a carbon trading market. Participated in this initiative for consecutive years, our Shenzhen plant has established a carbon reduction target of generating its annual carbon emission 5% lower than the government quota in 2018-2022. The target has been achieved for the past two years.

Although our other plants have not yet been incorporated into the carbon trading system by the regulator, we have established a carbon emission system at each plant. By accumulating data over the years, we shall be able to respond to a potential policy implementation in a timely manner.

Although in 2019, our greenhouse gas emissions were 704,852 tonnes of carbon dioxide equivalent, an increase of 16% compared to 2018 - an emission intensity of 0.39 tonnes of carbon dioxide equivalent / ten thousand RMB revenue, in the long run, we will be able to closely follow the latest technological progress and market demand, implement energy saving measures, contributing our part to limit global warming.

We track our energy consumption and greenhouse gas emissions indicators monthly to assess the effectiveness of energy conservation and emission reduction initiatives.

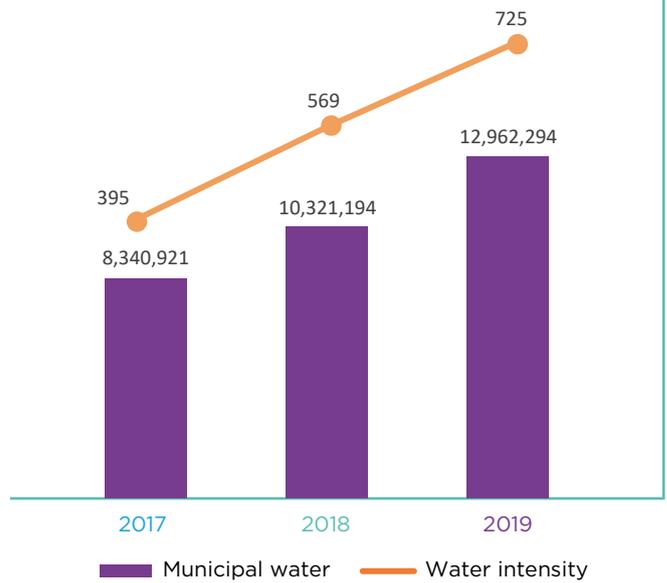


Our commitments and programs as described above contribute to:  
 Target 13.1 - strengthen capacity for addressing and adapting climate-related disasters and natural disasters

## Water Conservation

During the year, the Company did not experience any issue in sourcing water. Our water consumption includes domestic and industrial uses. In 2019, our overall water consumption was 12,962,294 tonnes, an increase of 26% compared to 2018. Consumption intensity was 725 tonne / RMB million revenue, which was 27% higher than 2018.

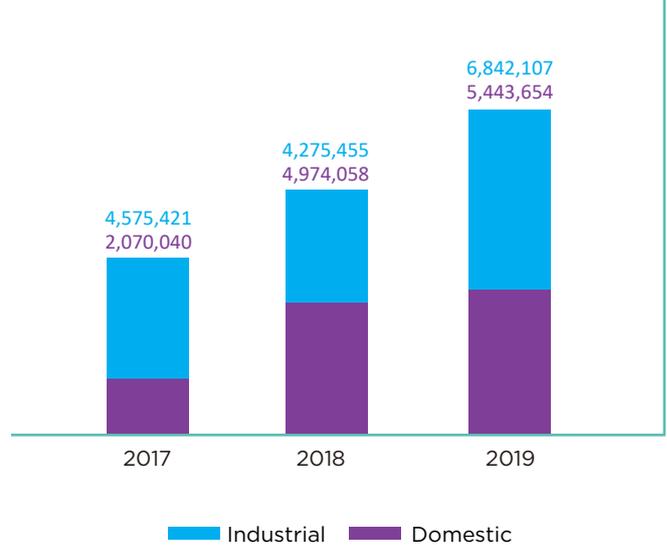
Municipal water consumption (tonne) and intensity (tonnes/million RMB revenue)



The industrial and domestic wastewater we generated are treated internally or by the municipal sewage treatment plants before discharging with compliance to the standards. In 2019, our total wastewater discharge is 12,285,761 metric tons, and the ratio of industrial wastewater to domestic wastewater is 56:44.

To reduce water consumption and the environmental impact of wastewater discharge, we have implemented mitigation measures, including flushing with concentrated water. In 2019, we implemented a pure water system transformation at the Shenzhen factory by recycling the concentrated water generated for production purpose. The initiative helped reduce 94 tonnes of wastewater discharge every day.

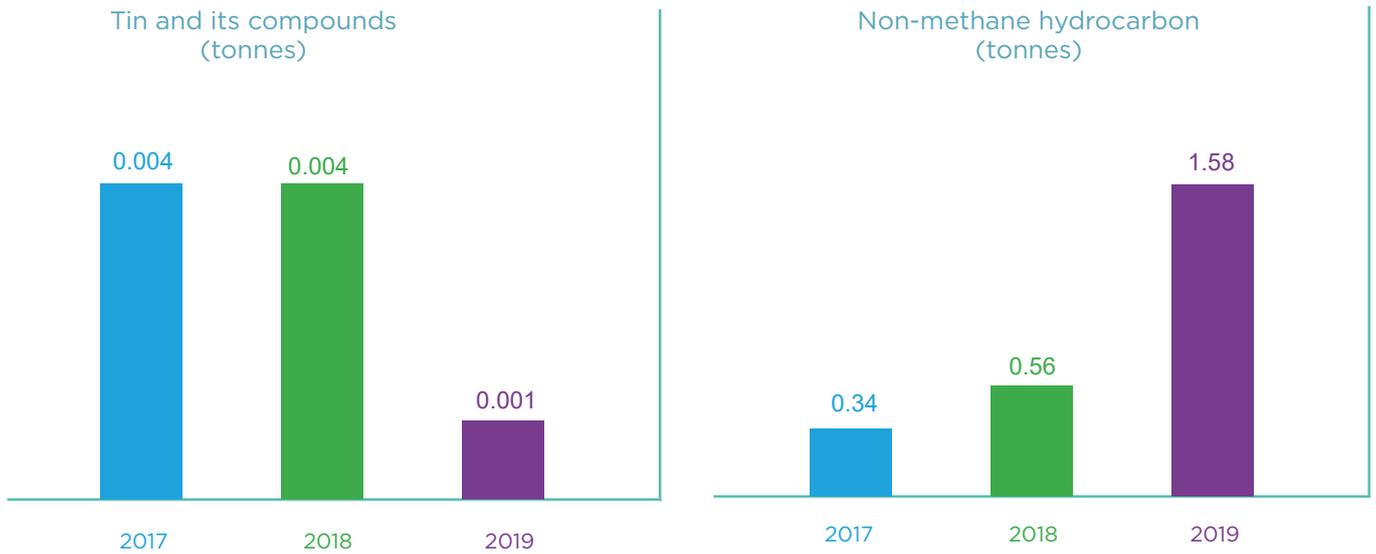
Wastewater discharge (tonnes)



Our commitments and programs as described above contribute to:  
 Target 6.3 - reduce pollution  
 Target 6.4 - improve water efficiency

## Reducing Air Pollutants

Our main exhaust gas pollutants include organic exhaust gas generated during the glue bonding process and a small amount of welding fumes. The production process of our miniature products, the amount of exhaust pollutants generated is not considered to be large and does not constitute a significant air pollution. In 2019, our production and operation process emitted a total of non-methane hydrocarbons 1.58 tonnes, tin and its compounds 0.001 tonnes, below the permitted amount of emissions.



Supporting the campaign of "Defending Blue Sky" advocated by the Government, we confirmed a boiler retrofit project in 2019. We are replacing gas boilers to reduce nitrogen oxides generated during the combustion process. With regard to organic waste gas, we are also studying to upgrade the original activated carbon adsorption treatment process and install an ultraviolet oxidation technology to reduce organic waste gas emissions further.

# Operational Excellence



We adopt a holistic approach and address all issues identified after listening to the customers' demands. Starting with R&D, sourcing raw materials, product design and quality management to maintain superior product quality close to zero-product-defect rate continue to receive our full attention. It is our objective to lead innovation and enhance user experience that drives our quest for operational excellence.

Number of patents



4,411

↑ 31% yoy

Conflict mineral free



100%

## Lead Innovation

Being the world’s leading provider of solutions for smart devices, we have consistently devoted significant resources to R&D to expand our technology roadmaps. AAC Technologies owns and operates 19 research centres worldwide with over 4,000 senior research staff and engineers.

Thanks to our unparalleled research capability, the Company successfully obtained 1,192 new patents in 2019, making a total of 4,411 patents, 35% of which are invention patents. The Company encourages innovation by providing rewards to inventors, including our employees, for developing patentable technologies. During the year, the Company has filed 3,243 additional patent applications. The application number of the Company falls under the Patent Cooperation Treaty (PCT) has achieved a 30-fold surge growth as compared with the year 2018.

Innovation award received	Awarded to
<b>China Intellectual Property Outstanding Enterprise</b>	AAC Acoustic Technologies (Shenzhen) Co. Ltd.
<b>Chinese Patent Excellence Award</b>	AAC Module Technologies (Changzhou) Co., Ltd.
<b>National Intellectual Property Standard Certification</b>	AAC Communication Technologies (Changzhou) Co., Ltd. AAC Microtech (Changzhou) Co., Ltd. AAC Optronics Technologies (Suzhou) Co., Ltd.

The Company unveiled several technological innovations and upgraded products in each business segment in 2019. In our annual technology seminar, the Company introduced a series of leading solutions including classic SLS acoustic platforms, high-end periscope lens solutions, upgraded haptic motors, and customised MEMS microphones, including TWS headphones, AR spectacles and automobile audio systems. In the Mobile World Congress 2019, ahead of the 5G era, the Company unveiled six different 5G antenna solutions for mobile phones and base station. In the Consumer Electronics Show Asia, the Company joined a Japanese car manufacturer to present a brand-new on-board directional sound system for automobiles. The Company believes that these technological innovations and solutions would be the new drivers of sustainable growth.



Our commitments and programs as described above contribute to:  
Target 9.5 - enhance scientific research and upgrade technological capabilities of industrial sectors.

### Intellectual property rights

The responsibilities of protecting our own intellectual property rights against infringement lies with our Intellectual Property Department. It formulates strategies and regulations for the development of intellectual property protection and enforcement framework, reviews the Company’s intellectual property management system, and organises relevant training programmes.

We follow defined Intellectual Property Management Practices to ensure efficient management and protection of the Company’s intellectual property rights. A set of Intellectual Property Operating Procedures is in place to regulate the application procedures and provide guidelines for training, avoidance of infringement of third-party patent rights and protection of copyrights, trade secrets and trademarks.

The Company assesses patent risks at the product design stage itself to eliminate the risk of infringing third-party intellectual property rights. We regularly monitor third-party patents, keep abreast with the latest technological developments and modify our product designs when necessary. In case of a patent dispute, a task-force team, composed of supervisors, account managers and patent inventors, will take proper actions in accordance with the related internal policies. During the year, the Company was not involved in any litigation relating to infringement of any intellectual property rights

## The Path to Zero Defects

The pursuit for zero defects is the grounding for operational excellence. By gradually moving towards automation in production and adopting big data management, we have taken the following concrete steps.

### Quality management system

Zero defects require attention to detail in quality management. While all our production plants have their Quality management system certified with ISO9001 quality management systems and certain plants in the PRC are certified with IECQ QC080000<sup>5</sup>, our product quality is assured by quality control at various stages. Our Non-Conforming Product Control Procedure provides guidelines to handle unqualified goods in all production phases, from raw materials to after sales.

The Company follows the Internal Quality Audit Procedures to prepare the annual audit plan and performs internal audits at least once a year on its quality management system, ensuring effectiveness of management approach to quality. If the audit results indicate an insufficiency in terms of practicality and effectiveness of the management system, the concerned department looks into the cause of insufficiency along with the auditor’s report and implements corrective measures.



- Review suppliers on the quality of their supplies through daily management and annual audits
- Conduct inspections of incoming materials and parts to screen out unqualified incoming materials
- Carry out audits on production lines of all operations to ensure proper implementation of the operation standards and procedures
- Realise big data management through Quality Data Management System and Internet of Things (IOT) Conduct
- Inspections of semi-finished products and end-products and isolate non-conforming products
- Communicate closely with customers to ensure product quality meets client requirements
- Monitor performance indicators for product quality and delivery
- Recall non-conforming products and take corrective actions

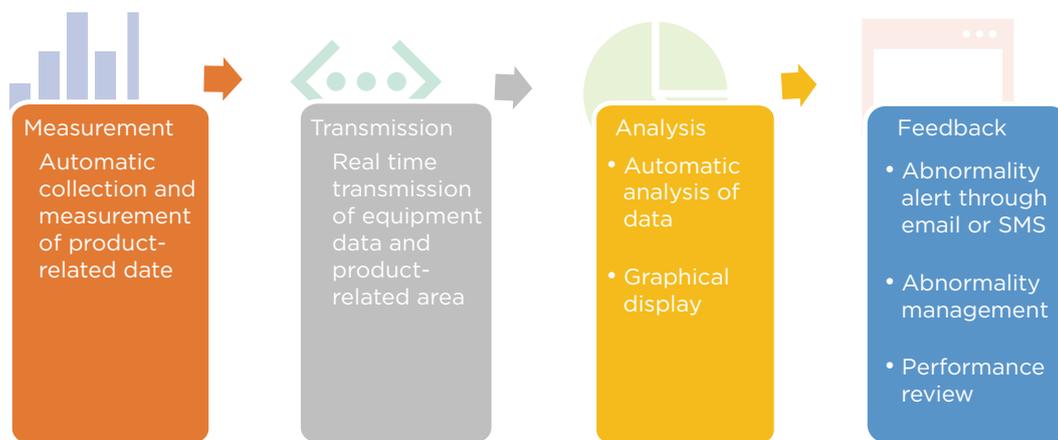
<sup>5</sup> Hazardous Substance Process Management Standards in Electrical and Electronic Components and Products.

### Big data management and automation

AAC Technologies is committed to fostering continuous upgradation of its production processes and achieving excellent and stable product quality through advanced technology.

Leveraging on our Quality Data Management (QDM) system, we are able to make use of big data to realise real time monitoring, investigate anomalies, perform data analysis and generate reports such as laboratory reliability report and defective product analysis report. Together with our internal Internet of Things (IOT) system, which manages equipment output data and operating status of key processes, we are able to transform from manual operations to smart automatic production processes.

*Quality Management through QDM and IOT system*



For the past two years, we have encouraged and supported our engineers to attain Six Sigma certifications, a set of tools and procedures for process improvement, to not only enhance their skillsets to excel in their roles but also to boost their creative thinking to explore innovative solutions for optimising our production processes. In 2019, 9 employees were rewarded for innovative ideas for improving production process or equipment efficiency.

## Suppliers' Management

We are committed to partnering with suppliers who share our values. By monitoring and evaluating our approved suppliers through daily management, annual audit, comprehensive performance evaluation and risk management, the Company selects suppliers with good quality and commitment to social responsibility based on established policies for suppliers' qualifications, including the Supplier Selection, Certification, and Evaluation Management Procedure and the newly established Tendering Management System.

### Supporting smart production by Six Sigma

In a gluing machine where plastic suction pens were originally used, there was a defect rate of 10% due to crushing and a defection rate of 20% due to glue whitening. After switching to aluminium suction pens as proposed by an employee, the added-on guiding effect reduced the defect rate due to crushing and glue whitening to as low as 0.2% and 0.5%, respectively.

Aspects of supplier assessment

We assess suppliers in four aspects: economy, quality, environment and society. Assessment criteria include:

Economy	Quality	Environment	Society
<ul style="list-style-type: none"> <li>• Delivery date, costs and services</li> <li>• Business reputation</li> <li>• Business ethics</li> <li>• Legal compliance</li> </ul>	<ul style="list-style-type: none"> <li>• Quality management systems</li> <li>• Product quality</li> <li>• Technical and processing ability</li> <li>• Production capacity and equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental management systems</li> <li>• Energy management</li> <li>• Air emissions and waste management</li> <li>• Chemical management</li> <li>• Fire and emergency management</li> </ul>	<ul style="list-style-type: none"> <li>• Human rights</li> <li>• Labor practices</li> <li>• Health and safety</li> <li>• Conflict minerals management</li> </ul>

Suppliers disqualified are required to deliver a written improvement report within one month and pass the quality audit to reinstate their status as approved suppliers. Suppliers disqualified to supply all materials have their qualification suspended for one year. In 2019, 77 suppliers were evaluated for their performance in social responsibility.

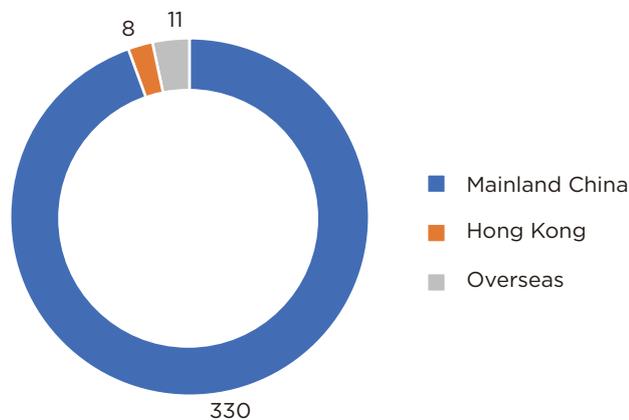
New suppliers have to go through a stringent pre-qualification procedure which includes background due diligence, on-site audit and components certification. In addition to having good business reputations and ISO9001 certification for quality management, suppliers are also required to establish an Environmental Management System according to the latest ISO14001 standard, make pledge on corporate social responsibility and possess full legal rights to use the relevant intellectual property rights.

After the pre-qualification assessment, on-site auditing and component certification by the sourcing team, R&D Department, SQE and Green Product (GP) team, suppliers who meet our wide range of assessment criteria, namely technical and processing ability, production capacity and our requirements on social and environmental management, are shortlisted as approved suppliers. In 2019, the Company maintained a list of 349 suppliers in mainland China, Hong Kong and other area in Asia.

**Supplier CSR commitment**

Our Supplier Code of Conduct (the “Code”) describes AAC Technologies’ expectations of its suppliers in the context of legal compliance, labour and human rights, health and safety, and chemical and emergency management. The Code makes references to international standards including Social Accountability 8000 International Standard. Suppliers are required to sign a CSR Commitment as an acknowledgement of their responsibility to adhere to the Code, and their commitment to ensure ethical practices in their business activities with the Company.

Suppliers geography distribution



Engaging channels with suppliers include seminars, training sessions, onsite visits, in-person meetings and audits. We also invite suppliers for technical seminars for industry and market trends for sharing and technology related discussions. In response to improving the automated production, we are opened to collaborate with our suppliers to create industry standard requirements. For example, in 2019, we successfully work jointly with a supplier on devising a new common standard for die-cutting materials. Thus, through the engagement of suppliers in developing new quality industry standards, we share our efforts in promoting and maintaining product quality for the industry.

**Conflict minerals**

Some of our products face the potential risk of using conflict minerals<sup>6</sup>. We take up this challenge seriously: ensuring materials we use and the products we produce do not involve any conflict minerals. In addition to strictly abiding by 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, the Company’s Hazardous Substances Management Regulation affirms the prohibition of minerals illegally mined in the Democratic Republic of Congo. Our approaches to forbid the use of conflict minerals include:

2019 Target	100% conflict mineral free		
Strategies and actions	<p>During the component certification process within the supplier pre-qualification process, our GP team collects suppliers’ information related to conflict minerals, including the list of mines from which they procure raw materials, to ensure their supplies do not contain conflict minerals.</p>	<p>We conduct conflict-free due diligence on our suppliers, adopting the Conflict Minerals Reporting Template (CMRT) formulated by RBA and Global e-Sustainability Initiative (GeSI). During the year, we conducted conflict-free due diligence for 22 suppliers, 11 of which involved the use of gold, tin or tungsten. All of them have passed the due diligence.</p>	<p>Our GP team requires suppliers using tin, tantalum, tungsten, their ores and gold to sign a Conflict Mineral Declaration (the “Declaration”) to certify that they are not using conflict minerals in any products, components and materials supplied to us. Under the Declaration, suppliers are required to conduct RBA and GeSI Conflict Free Smelter Audit on smelters or refineries of their supply chain, and to terminate all their related business purchases of conflict minerals.</p>
Results	100% compliant		

<sup>6</sup> Conflict minerals refer to minerals that are mined under conditions of armed conflict, notably in the Democratic Republic of Congo and adjoining countries. Profit 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.

## Enhancing Customer Experience

The Company maintains a long-standing and strong relationship with customers through the implementation of a customer service management system and a customer satisfaction management procedure, which comprises a three-dimensional approach to engaging with customers. Our work for maintaining customer satisfaction is collaboratively monitored and implemented by various departments.



**Comprehensive evaluation surveys**

- Receive feedbacks from customers by participating in their conferences and quarterly review meetings



**Daily data tracking**

- Monitor data such as product return rate and number of complaints on an on-going basis



**Customer visits**

- Carry out client engagement and hospitality activities

### Sales and Marketing Department

- Organise regular customer visits
- Conduct customer satisfaction surveys
- Handle customer complaints
- Collect comments from customers and forward the feedback to relevant department for follow up

### Quality Department

- Provide quality improvement measures

### R&D Department

- Provide technical improvement measures

### Operation Department

- Provide improvement measures of delivery capacity

### Gauging customer satisfaction

To facilitate a proactive approach to addressing clients' views, AAC Technologies interacts with customers in the context of product quality, delivery capacity, etc. through surveys and direct reach-outs. We compile a customer satisfaction analysis report half-yearly to investigate the composition of the score and formulate follow-up actions.

Committed to align expectations of our customers with what we internally strive for, the Sales and Marketing Department develops continuous improvement plans based on the scoring and engages relevant departments for the formation of improvement measures.

2019 customer satisfaction (out of 5)



### Resolving problems

When we encounter customer queries or complaints, we actively communicate with customers to investigate the problem and take corrective measures, endeavouring to resolve the problem and prevent it from recurring. The problems are classified into four grades according to the significance of their impacts to customers, and priority is given to problems in the highest grade. A response team is formed to analyse the causes of the defect, carry out risk management and implement corrective measures to resolve the problem. Subsequently, we perform an 8D analysis<sup>7</sup> and write up an improvement report for the customer’s confirmation and follow-up. In 2019, we received 421 complaints. All of them were resolved. In case of a product defect relating to product quality, we carry out problem investigations following our Non-Conforming Product Control Procedure.

## Green Products

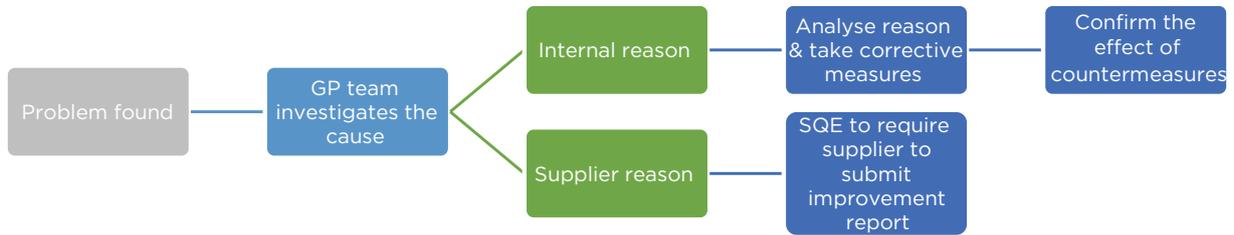
We strive to adhere to the principle of “Green Materials, Green Process, Green Products” when sourcing products and materials for our operations, producing green components products that are safe for customers, employees and the environment. The Company performs due diligence when managing hazardous materials. Suppliers are subject to audits by our GP team in terms of their management of green products and hazardous materials, as well as provision of relevant training to their employees. The GP Team inspects incoming materials for hazardous materials according to the Company’s Hazardous Substances Management Regulation, which stipulates the list of hazardous substances, their content limits and the corresponding laws and regulations. The checklist is updated in due course in compliance with international standards such as RoHS<sup>8</sup> and REACH<sup>9</sup>.

Class 1:	Class 2:	Class 3:
<ul style="list-style-type: none"> <li>Substances restricted by RoHS</li> </ul>	<ul style="list-style-type: none"> <li>Substances restricted by national regulations or conventions other than RoHS</li> </ul>	<ul style="list-style-type: none"> <li>Substances concerned by the industry due to their environmental and health impacts</li> </ul>
<ul style="list-style-type: none"> <li>8 items</li> </ul>	<ul style="list-style-type: none"> <li>73 items</li> </ul>	<ul style="list-style-type: none"> <li>13 items</li> </ul>
<ul style="list-style-type: none"> <li>Cadmium and its compounds (Cd), Lead and its compounds (Pb), Mercury and its compounds (Hg), Chromium (VI) and its compounds (Cr(VI)), PBBs, PBDEs, phthalates, halogens, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Arsenic and its compounds (As), Asbestos and its compounds, Organic tin compounds, Other brominated flame retardants, other chlorine compounds, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Bismuth and its compounds, Barium and its compounds, Chromium III compounds, Rare earth elements, etc.</li> </ul>

In case of any unqualified environmental substances found in incoming materials, semi-products and end products, the management representative is immediately notified in order to carry out containment measures in accordance with the internal handling procedures. The material or product with unqualified environmental substances must be recalled and scrapped. During the year, we have not receive any complaints about environmentally harmful substances.

<sup>7</sup> An 8D model is a problem solving approach commonly applied in manufacturing industry, aiming to identify, correct, and eliminate recurring problems.  
<sup>8</sup> Restriction of Hazardous Substances Directive, a directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.  
<sup>9</sup> Registration, Evaluation, Authorisation and Restriction of Chemicals.

*Procedures for handling of unqualified environmental substances*



## Information Security and Privacy

Data security and privacy threats continue to evolve and escalate, making data security and privacy a growing concern for the Company and its stakeholders. The Company implements a wide range of measures to safeguard systems and data from breaches, leakage and hacks.

*Tools to enhance our information security*

**Log analysis**

- Adopting Safety Information and Event Management (SIEM) solutions to manage and analyse log files. Log files keep records of events that occurred in the IT systems, including transmission trails between each information source. Analysing log files enables us to identify sources of data leak and system vulnerability, their effects and develop precaution measures to prevent data hacks.

**Desktop management**

- Adopting SIEM solutions to monitor activities of IT systems end-users. When a deviation from normal IT activities is detected from users, our SIEM system will generate a swift alert and instruct other security controls to stop the progress of suspicious activity.

**Enterprise email archive**

- Implementing Enterprise Email Archive to store large mail volumes in a single and secure cloud archive system, improving our email management to ensure high level of data protection.

### Comprehensive management on information security

On top of maintaining an ISO27001 certified information security management system and strictly complying with the Cybersecurity law of the PRC and the EU General Data Protection Regulation, we demonstrate our commitment to data security through a comprehensive risk management approach:

Management	Technology
<p><b>Information Security Committee:</b></p> <ul style="list-style-type: none"> <li>Direct and manage the information security work of the Company, including approving information security strategy, ensuring potential information security related risks are identified and under control, and making decisions related to information security matters</li> </ul> <p><b>Information Security Department:</b></p> <ul style="list-style-type: none"> <li>Maintain and continuously improve the Information Security Management System and relevant procedures</li> <li>Regularly conduct information security risk assessment, compliance checks and employee training</li> </ul> <p><b>Information Technology Department and other departments:</b></p> <ul style="list-style-type: none"> <li>To implement information security strategy and measures</li> <li>Strictly follow the Ten Codes of Information Security to keep company information confidential</li> <li>Participate in information security training</li> </ul>	<ul style="list-style-type: none"> <li>Secure firewalls, anti-virus software and end-user monitoring software (e.g. SEP, PGP, DLP, etc.) to help prevent unauthorised external access to internal systems of the Company</li> <li>Perform data encryption when moving the data storage media or files and scan with anti-virus software before reading from a removable data storage media</li> <li>Update smart mobile device operating systems and software patches in a timely manner</li> <li>Secure data links and prevent damage</li> </ul>
	<p><b>Awareness Building</b></p> <p>Provide induction training and on-the-job training to raise awareness of all employees in safeguarding information security. Content including but not limited to:</p> <ul style="list-style-type: none"> <li>Applicable laws and regulations</li> <li>Industry regulatory requirements</li> <li>Information security strategy and management regulations of the Company</li> <li>Personal information protection</li> <li>Intellectual property rights</li> </ul>

### Evaluation of management approach

Comprehensive policies are in place to regulate the Company’s information security management and prevent disclosure to third parties. Parties who violate information security guidelines, laws and regulations, or confidentiality agreements are subject to penalties. Besides, 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 measures to ensure its effectiveness. We make corrective recommendations where appropriate to continuously improve the programme.

During the year, the Company was not aware of any non-compliance of relevant laws and regulations that have a significant impact on the Company relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redressal.

# Community Care

The Company is committed to creating value to environmental, social and economic aspects through collaborating with its community stakeholders. Although the donation amount has declined compared to previous year, it does not mean management has reduced efforts in this aspect.

During the year, the Company joined the adoption scheme of the Hong Kong branch of the World Wildlife Fund (“WWF”), supporting WWF’s conservation efforts and raising awareness towards the endangered species.

Also, we launched a campaign in China: raising employees’ awareness in garbage classification through training and competition. In Vietnam, a team of approximately 100 employees volunteered to clean up the surrounding environment of our three production facilities.

Our continued dedication in supporting youth development by subsidizing Teach for China, a non-profit education program, targeting the underprivileged teenagers located in rural China. During the year, our volunteers visited these youth in Changzhou to deliver our care.

In the recent critical time of fighting against the Coronavirus outbreak, amid the shortage of medical equipment and supplies, we have reached out to different sectors of our society, and have donated a total of 5,234 sets of medical protective wear to Longgang District Government, Nanshan District Government, and Shenzhen Children’s Hospital, as well as 350,000 pieces of surgical masks to suppliers. We have also worked with Yushu Hohxil Wildlife Conservation Association to source the medical equipment and made donations to medical staff in these places in China: Hubei, Guangdong, Qinghai, Sichuan and Tibet.



Our commitments and programs as described above contribute to:  
Target 4.6 – ensure all youth are able to achieve literacy and numeracy

## 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.

		2019	2018	2017
Workforce Demographics	<b>Total Headcount</b>			
	<b>By Geographical Distribution</b>			
	Changzhou	17,312	18,617	31,327
	Shenzhen	1,921	1,971	2,305
	Shuyang	6,213	6,321	10,008
	Suzhou	901	710	919
	Nanning	4,554	1,653	N/A
	Vietnam	7,352	5,999	7,038
	Overseas and other areas	1,132	724	574
	Total	39,385	35,995	52,171
	<b>By Age</b>			
	<30	23,343	23,584	37,602
	31-40	13,571	10,139	11,948
	41-50	2,201	2,058	2,428
	>50	270	214	193
	<b>By Gender</b>			
	Male	24,783	22,124	31,190
Female	14,602	13,871	20,981	
<b>By Educational Background</b>				
Degree or above	16,991	15,633	18,252	
High school or below	22,394	20,362	33,919	
<b>By Employee Category</b>				
Management	2,090	2,042	2,238	
R & D Engineers	1,644	1,532	4,388	
Technician	2,533	2,450	N/A	
Mechanics	13,394	12,670	N/A	
Operators	19,724	17,301	45,545	
<b>Employees Training</b>				
Average training hours	19.1	16.6	14.3	
Health and Safety	<b>Safe Manufacturing Investments (RMB thousand)</b>	52,400	62,536	69,863
	<b>Performance of Occupational Health and Safety</b>			
	Major pollution/safety incidents	0	0	0
	Fire hazard	2	1	4
	Total Work-related accidents	69	79	138
	Type A - Slight injury	28	30	N/A
	Type B - Minor injury	39	48	N/A
	Type C - Severe injury	1	1	N/A
	Type D - Fatalities	1*	0	0
	Work-related injuries per 1,000 workers	1.75	2.19	2.65
	Lost days due to work-related injury	2,861	2,720	1,771
	Number of occupational disease cases	0	0	0
	<b>Training on Occupational Safety and Health</b>			
Total person-times training	94,337	88,591	235,177	
Total training hours	141,506	132,887	352,766	
Percentage of workers trained	100%	100%	100%	

		2019	2018	2017
Environment	<b>Environmental Protection Expenditure (RMB thousand)</b>	95,480	52,696	57,203
	<b>Total Resources Consumption</b>			
	Electricity (kWh)	1,044,913,303	872,101,143	664,017,445
	Fuel Oil (kg)	659,409	1,246,150	1,230,247
	Fuel Gas (m <sup>3</sup> )	1,374,547	1,520,925	1,250,717
	Coal (Tonnes)	0	0	0
	Total energy intensity (GJ per million RMB revenue)	215	179	118
	Water (Tonnes)	12,962,294	10,321,194	8,340,921
	Water intensity (Tonnes per million RMB revenue)	725	569	395
	<b>Emissions</b>			
	Non-methane hydrocarbon (Tonnes)	1.58	0.56	0.34
	Tin and its compounds (Tonnes)	0.001	0.004	0.004
	Wastewater discharge (Tonnes)	12,285,761	9,249,513	6,645,461
	Hazardous waste (Tonnes)	16,360	10,139	9,103
	Non-hazardous waste (Tonnes)	9,046	13,150	19,394
	Waste intensity (Tonnes per million RMB revenue)	0.51	0.73	0.59
	<b>Greenhouse Gases Emissions and Intensity</b>			
	Total GHG emissions (tCO <sub>2</sub> e)	704,852	608,600	548,366
	Scope I (tCO <sub>2</sub> e)	1,994	4,277	4,510
	Scope II (tCO <sub>2</sub> e)	702,858	604,323	543,854
	Emission intensity (tCO <sub>2</sub> e per ten thousand RMB revenue)	0.39	0.34	0.26
<b>Usage of Packaging Materials</b>				
Carton (Pcs)	5,492,677	4,371,985	3,491,300	
Blister boxes (Pcs)	65,647,858	55,964,934	53,544,827	
Carrier tape (Meter)	14,361,704	11,913,176	15,007,207	
Carrier disc (Pcs)	648,795	408,897	454,709	
Packing belt (Roll)	975	1,931	2,659	
Sealing paper (Roll)	1,746,525	N/A	503,981	
Sealing paper (Square meter)	108,353	N/A	N/A	
Label (Pcs)	9,410,019	24,013,367	6,023,618	
Community	<b>Donation (RMB thousand)</b>	800	1,400	3,307

\* A fetal traffic accident occurred in June 2019 outside the Company's premises, causing the death of one employee.

## Awards and Recognitions

Award Received	Awarded to	Awarded by
<b>Sustainability</b>		
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 Innovative Frontrunner Award	AAC Technologies Holdings Inc.	Hong Kong ESG Reporting Awards
Hong Kong Sustainability Award Certificate of Excellence	AAC Technologies Holdings Inc.	The Hong Kong Management Association
Citation for ESG Disclosure 2019	AAC Technologies Holdings Inc.	The Hong Kong Management Association
<b>Corporate Transparency</b>		
“Special Mention” at Best Corporate Governance Awards 2019	AAC Technologies Holdings Inc.	Hong Kong Institute of Certified Public Accountants
The Hong Kong Outstanding Corporate Citizenship Logo	AAC Technologies Holdings Inc.	Hong Kong Productivity Council
<b>Socio-Economic Contribution</b>		
Top 500 Shenzhen Enterprises	AAC Acoustic Technologies (Shenzhen) Co. Ltd	Shenzhen Enterprise Confederation, Shenzhen Entrepreneur Association
Chinese Private Manufacturing Enterprises 500	AAC Acoustic Technologies (Shenzhen) Co. Ltd	All-China Federation of Industry & Commerce
2019 Shenzhen Brand	AAC Acoustic Technologies (Shenzhen) Co. Ltd	Federation of Shenzhen Industries
Top 100 China Electronics Components Enterprises	AAC Technologies Holdings Inc.	China Electronic Components Association
The second prize of the 2019 National Science and Technology Progress Award	AAC Optoelectronics Technology (Changzhou) Co. Ltd	The State Council of the PRC
The Single Champion of Manufacturing Industry in 2019	AAC Optoelectronics Technology (Changzhou) Co. Ltd	Ministry of Industry and Information Technology of the People’s Republic of China
The Forbes Global 2000-The World’s Largest Public Companies	AAC Technologies Holdings Inc.	Forbes
2018 Golden Hong Kong Stock Awards for Listed Companies	AAC Technologies Holdings Inc.	Zhitongcaijing.com
<b>Environmental Responsibility</b>		
Green Office and Eco-Healthy Workplace Awards Label	AAC Technologies Holdings Inc.	World Green Organisation
<b>Product Excellence</b>		
2019 Shenzhen Patent Award	AAC Acoustic Technologies (Shenzhen) Co. Ltd	Shenzhen Municipality People’s Government
National Intellectual Property Demonstration Enterprise in 2019	AAC Technologies Holdings Inc.	National Intellectual Property Administration of the PRC

## 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.

## Laws and Regulations

The Company strictly abides by relevant laws and regulations, including but not limited to the following.

Topic	Applicable laws and regulations
Environment	<ul style="list-style-type: none"> <li>■ The Environmental Protection Law of the PRC</li> <li>■ The Law of the PRC on Environmental Impact Assessment</li> <li>■ The Environmental Protection Tax Law of the PRC</li> <li>■ The Law of the PRC on the Promotion of Clean Production</li> <li>■ The Law of PRC on the Prevention and Control of Water Pollution</li> <li>■ The Regulation on Urban Drainage and Sewage Treatment.</li> <li>■ The Law of the PRC on the Prevention and Control of Environmental Pollution of Solid Waste</li> <li>■ The Administrative Measures for the Prevention and Control of Environmental Pollution by Electronic Waste</li> <li>■ The law of the PRC on the Prevention and Control of Air Pollution</li> <li>■ Integrated Emission Standard of Air Pollutants</li> </ul>
Employment	<ul style="list-style-type: none"> <li>■ Labor Law of the PRC</li> <li>■ Labor Contract Law of the PRC</li> <li>■ Provisions on the Prohibition of Using Child Labor</li> <li>■ Law of the PRC on the Protection of Minors</li> </ul>
Safety	<ul style="list-style-type: none"> <li>■ Production Safety Law of the PRC</li> <li>■ Law of the PRC on the Prevention and Control of Occupational Diseases</li> </ul>
Product Liability	<ul style="list-style-type: none"> <li>■ Tort Liability Law of the PRC</li> <li>■ The Patent Law of the PRC</li> <li>■ The Decision of the State Council on Further Strengthening of Protection of Intellectual Property,</li> <li>■ Cybersecurity Law of the PRC</li> <li>■ The General Data Protection Regulations (EU)</li> </ul>
Anti-corruption	<ul style="list-style-type: none"> <li>■ Criminal Law of the PRC</li> <li>■ Anti-Unfair Competition Law of the PRC</li> <li>■ Hong Kong Prevention of Bribery Ordinance</li> </ul>



## VERIFICATION STATEMENT

### Scope and Objective

Hong Kong Quality Assurance Agency (“HKQAA”) was commissioned by AAC Technologies Holdings Inc. (“AAC”) to undertake an independent verification for the 2019 Sustainability Report (“the Report”). The Report stated the economic, safety, environmental and social performance of AAC for the period from 1<sup>st</sup> January 2019 to 31<sup>st</sup> December 2019 for its operations. This is the seventh report that AAC published to communicate its commitments, efforts and progress of performance towards sustainability.

The aim of this verification is to provide a reasonable assurance on the reliability of the report contents. The Report has been prepared in accordance with the Core Option of the GRI Sustainability Reporting Standards (GRI Standards) and Appendix 27 “Environmental, Social and Governance Reporting Guide (“ESG Guide”)” of the Main Board Listing Rules of The Stock Exchange of Hong Kong Limited.

### Level of Assurance and Methodology

The process applied in this verification was based on the International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. Our evidence gathering process was designed to obtain a reasonable level of assurance as set out in the standard for the purpose of devising the verification conclusion. The extent of this verification process undertaken covered the criteria set in the GRI Standards: Core Option 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 is responsible for the collection and presentation of the information presented. HKQAA does not involve in the collection and calculation of data or the compilation of the reporting contents where HKQAA’s verification activities were entirely independent from AAC. There was no relationship between HKQAA and AAC that would affect the independence of HKQAA for providing the verification service.

### 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 GRI Standards: Core Option and the ESG Guide;
- The Report illustrates the sustainability performance of AAC, covering all material aspects, in a balanced, comparable, clear and timely manner; and
- The data and information disclosed in the Report are reliable and complete.

Nothing has come to HKQAA attention that the selected sustainability performance information and data contained in the Report has not been prepared and presented fairly and honestly, in all material aspects, in accordance with the verification criteria.

### Signed on behalf of Hong Kong Quality Assurance Agency

Jorine Tam  
Director, Corporate Business  
March 2020

## GRI and 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	Section and Remarks
<b>General Standard Disclosures</b>				
Organizational Profile	102-1	-	Name of the organization	p. 2
	102-2	-	Activities, brands, products, and services	p. 5-7
	102-3	-	Location of headquarters	p. 5
	102-4	-	Location of operations	p. 5-6
	102-5	-	Ownership and legal form	p. 5-6
	102-6	-	Markets served	p. 5-6
	102-7	-	Scale of the organization	p. 5-7
	102-8	B1.1	Information on employees and other workers	p. 22-23
	102-9	B5.1	Supply chain	p. 43
	102-10	-	Significant changes to the organization and its supply chain	No significant changes
	102-11	-	Precautionary Principle or approach	p. 30
	102-12	-	External initiatives	p. 15, 59
	102-13	-	Membership of associations	p. 53
Strategy	102-14	-	Statement from senior decision-maker	p. 8-9
Ethics and Integrity	102-16	-	Values, principles, standards, and norms of behaviour	p. 5
Governance	102-18		Governance structure	p. 10
Reporting practice	102-41	-	Collective bargaining agreements	p. 24
	102-42	-	Identifying and selecting stakeholders	p. 12
	102-43		Approach to stakeholder engagement	p. 12
	102-44	-	Key topics and concerns raised	p. 13-14
	102-45	-	Entities included in the consolidated financial statements	Annual Report
	102-46	-	Defining report content and topic Boundaries	p. 14
	102-47	-	List of material topics	p. 14
	102-48	-	Restatements of information	No restatement
	102-49	-	Changes in reporting	No significant changes
	102-50	-	Reporting period	p. 2
	102-51	-	Date of most recent report	2019/4/18
	102-52	-	Reporting cycle	p. 2
	102-53	-	Contact point for questions regarding the report	p. 2
	102-54	-	Claims of reporting in accordance with the GRI Standards	p. 2
102-55	-	GRI content index	p. 55-58	
102-56	-	External assurance	p. 54	

Material Aspects	GRI Indicator	ESG Guide	Description	Section and Remarks
<b>Performance Indicators – Material Topics</b>				
<b>1. Social – Labour Practices and Decent Work</b>				
Talent Management	103	B1	Report how the organization manages the material Aspect or its impacts	p. 16-21, 24
	401-2	B1	Benefits provided to full-time employees that are not provided to temporary or part-time employees	p. 21
Employment	401-1	B1.2	New employee hires and employee turnover	p. 23
Occupational Health and Safety	103	B2	Report how the organization manages the material Aspect or its impacts	p. 25-28
	103	B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	p. 25-26
	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. 27-50
Training and Education	103	B3	Report how the organization manages the material Aspect or its impacts	p. 17-20
	404-2	B3	Programs for upgrading employee skills and transition assistance programs	p. 17-20
	404-1	B3.2	Average hours of training per year per employee	p. 19
<b>2. Environmental</b>				
Expenditure on Environmental Protection	103	A3	Report how the organization manages the material Aspect or its impacts	p. 30
<b>3. Economic</b>				
Company's Economic Performances	103		Report how the organization manages the material Aspect or its impacts	Annual Report
	201-1	B8.2	Direct economic value generated and distributed	p. 6
Social and Economic Compliance	103	B6	Report how the organization manages the material Aspect or its impacts	p. 11
	419-1	B7	Non-compliance with laws and regulations in the social and economic area	During the year, there was no non-compliance incidents.
<b>4. Social – Society</b>				
Social and 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.
Economic Value Generated at Where the Company Operates	103		Report how the organization manages the material Aspect or its impacts	Annual Report
<b>5. Social – Product Responsibility</b>				
Product Quality Management	103	B6	Management Approach	p. 41-42
		B6.4	Description of quality assurance process and recall procedures	p. 41-42

Material Aspects	GRI Indicator	ESG Guide	Description	Section and Remarks
<b>Performance Indicators – Non-material Topics</b>				
<b>1. Environmental</b>				
Air Emission Management		A1.1	The Types of emissions and respective emissions data	p. 38
Raw Materials Management	103	A2, A3	Report how the organization manages the material Aspect or its impacts	p. 33-35
	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. 33-35
	302-1	A2.1	Energy consumption within the organization	p. 34
	302-4	A2.3	Reduction of energy consumption	p. 34
Water Management	103-	A2	Report how the organization manages the material Aspect or its impacts	p. 37
	303-1	A2.2	Water withdrawal by source	p. 37
		A2.4	Issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	p. 37
Greenhouse Gases Management	103	A1	Report how the organization manages the material Aspect or its impacts	p. 35-36, 38
	305-1	A1.1, A1.2	Direct (Scope 1) GHG emissions	p. 36
	305-2	A1.1, A1.2	Energy indirect (Scope 2) GHG emissions	p. 36
	305-4	A1.2	GHG emissions intensity	p. 36
	305-5	A1.5	Reduction of GHG emissions	p. 36
Waste Management	103	A1 A3	Report how the organization manages the material Aspect or its impacts	p. 31-32
	306-2	A1.3, A1.4, A1.6	Waste by type and disposal method	p. 31-32
Wastewater Management	103	A1 A3	Report how the organization manages the material Aspect or its impacts	p. 37
	306-2	A1.1	Waste by type and disposal method	p. 37
Environmental Compliance	103	A1(b) A3	Report how the organization manages the material aspect or its impacts	p. 30, 53
	307-1	A1(b)	Non-compliance with environmental laws and regulations	p. 30
Packaging material	-	A2.5	Packaging material used for finished products	p. 51
The Environment and Natural Resources	103	A3	Management Approach	p. 30
		A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	p. 30
<b>2. Social – Society</b>				
Anti-Corruption	103	B7	Report how the organization manages the material Aspect or its impacts	p. 11-12
	103	B7.2	Report how the organization manages the material Aspect or its impacts	p. 11-12
	205-3	B7(b), B7.1	Confirmed incidents of corruption and actions taken	p. 11-12
Community Relations	103-	B8	Report how the organization manages the material Aspect or its impacts	p. 49
	413-1	B8.1	Operations with local community engagement, impact assessments, and development programs	p. 49

Material Aspects	GRI Indicator	ESG Guide	Description	Section and Remarks
<b>Performance Indicators – Non-material Topics</b>				
<b>3. Social – Human Rights</b>				
Child Labor	103	B4	Report how the organization manages the material Aspect or its impacts	p. 24
	408-1	B4.1	Operations and suppliers at significant risk for incidents of child labor	p. 24
Forced or Compulsory Labor	103	B4	Report how the organization manages the material Aspect or its impacts	p. 24
	409-1	B4.2	Operations and suppliers at significant risk for incidents of forced or compulsory labor	p. 24
<b>4. Social – Labor Practices and Decent Work</b>				
Supplier Management	103	B5	Report how the organization manages the material Aspect or its impacts	p. 42-44
	308-1	B5.2	New suppliers that were screened using environmental criteria	p. 42-44
	414-1	B5.2	New suppliers that were screened using social criteria	p. 42-44
Anti-discrimination	103	B1	Report how the organization manages the material Aspect or its impacts	p. 24
Diversity and Equal Opportunity	103	B1	Report how the organization manages the material Aspect or its impacts	p. 24
<b>5. Social – Product Responsibility</b>				
Product Health and Safety	103	B6	Report how the organization manages the material Aspect or its impacts	p. 41-42
	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	Management Approach	p. 44-45
		B6.2	Number of products and services related complaints received and how they are dealt with	p. 44-45
Innovation and Intellectual Property Rights		B6.3	Description of practices relating to observing and protecting intellectual property rights	p. 40-41
Data Security and Customer Privacy Management	103	B6	Report how the organization manages the material Aspect or its impacts	p. 47-48
	-	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	p. 47-48
	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 and Labelling	103	B6	Report how the organization manages the material Aspect or its impacts	During the year, there was no 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

■ HKEX Appendix 27 Recommended disclosures

## International Standards

We endorse United Nations Global Compact which is a set of 10 principles in the areas of human rights, labour, environment and anti-corruption. In addition, we also adhere to the following international guidelines and standards: International Labor Organization Conventions; United Nations Guiding Principles on Business and Human Rights; Occupational Health and Safety Assessment Series (OHSAS) 18001; ISO14001 Environmental Management System; ISO50001 Energy Management System; Electrotechnical Commission Quality Assessment System for Electronic Systems (IECQ) QC080000; UL2799 Environmental Claim Validation Procedure for Zero Waste to Landfill

United Nations Global Compact 10 Principles		Location in this report
<b>Human Rights</b>		
Principle 1	Business should support and respect the protection of internationally proclaimed human rights; and	p. 24, 43
Principle 2	Make sure that they are not complicit in human rights abuses.	p. 24, 43
<b>Labor Standards</b>		
Principle 3	Business should uphold the freedom of association and the effective recognition of the right to collective bargaining;	p. 24
Principle 4	The elimination of all forms of forced and compulsory labor;	p. 24, 43
Principle 5	The effective abolition of child labor; and	p. 24, 43
Principle 6	The elimination of discrimination in respect of employment and occupation.	p. 24
<b>Environment</b>		
Principle 7	Business should support a precautionary approach to environmental challenges;	p. 30, 31
Principle 8	Undertake initiatives to promote greater environmental responsibility; and	p. 30, 38
Principle 9	Encourage the development and diffusion of environmentally-friendly technologies.	p. 30, 38
<b>Anti-corruption</b>		
Principle 10	Business should work against corruption in all its forms, including extortion and bribery.	p. 11