+ Create and Share Warm Memories +

Apacer

Technology Inc.

2019

Corporate Social Responsibility Report

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About this Report

Report Structure

This Report adopts the GRI Standards of the Global Reporting Initiative (GRI) and was compiled based on the core options. Through the globally recognized reporting framework, this Report fully discloses the information for Apacer's stakeholders regarding economic, environmental, and social issues.

Principles of Compilation

Apacer has referenced domestic and international sustainable and industry trends and identified stakeholders' issues of concern through materiality analysis, which is then used as the core of information disclosure within this Report. At the same time, the editors of this Report comply with the four major reporting principles and six reporting quality principles required by the GRI guidelines and adopt the AA1000 AccountAbility Principle Standard (APS): Materiality, inclusivity, responsiveness, and degree of impact (2018 edition) when compiling this report.

Reporting Scope

The information disclosure period of this Report was from January 1, 2019, to December 31, 2019. This is the seventh CSR Report that Apacer has published, and the date of publication for the most recent report was in August 2019. Apacer publishes CSR Reports annually and discloses the CSR Reports on the company website to continue communicating with external parties on Apacer's sustainable actions. The scope of information disclosure for this Report focuses on Apacer's operating headquarters and production sites in Taiwan. Overseas sites are not included. Notes and explanations will be available in the Report in case any content or information refers to the Company's overseas operations.

Third-Party Verification

To ensure transparency and reliability in information disclosure, as well as enhance performance compatibility and report credibility, this Report has commissioned the independent and credible British Standards Institution (BSI) for external assurance in accordance with AA1000 AS (2008), 2018 Addendum for the AA1000AS: Type 1 Moderate level assurance, and GRI Standards: Core Option. Please see the Attachment: Declaration for Independent Assurance for BSI's independent third-party verification statement.

Contact Information

We hope to maintain close communication with our stakeholders. Your opinions will be the greatest driving force for our improvement, and we look forward to hearing from you.

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A Word from **the Chairman**

Chairman Austin Chen *Austin Chen*

In 2019, Apacer started promoting its brand core value: "Delivering on Our Promises, Constant Improvement, Mutually Beneficial." By encouraging employees to "Becoming Better Partners," we aim to fulfill United Nations Sustainable Development Goals (SDGs). In view of this, Apacer has launched its Sustainability Strategy Development (SSD) to extend the Company's positive influence to multiple value chains. Moreover, we set short, mid, and long-term objectives for economic, environmental, and social actions, which we keep regular track of and constantly communicate improvements. It is our wish that Apacer fulfills its corporate social responsibility to "Becoming Better Partners" for all its stakeholders.

Looking back at 2019, Apacer has achieved multiple accomplishments in terms of the three major aspects – environment, society, and corporate governance. **Regarding the environment**, Apacer is committed to offering protection. In 2005, Apacer had introduced the ISO 14001 Environmental Management System and obtained its certification in reducing environment impact and energy consumption for its manufacturing processes. Since then, the internal management system has been continuously enhanced with new ISO versions, and the follow-up audit was completed before the printing of this Report. Furthermore, Apacer has introduced QC 080000:2017 Hazardous Substance Process Management System, which is under advance internal planning to match its update in 2020. In response to the RoHS requirements and Hazardous Substance-Free (HSF) regulations for suppliers, Apacer regularly convenes supplier conferences in requesting Tier 1 suppliers to comply with RBA requirements and provide relevant guidance. We also work with our suppliers to underline the importance of labor rights,

environmental protection, and ethical and transparent business operations with the aim of significantly enhancing benefits and raise awareness for environmental sustainability issues.

In terms of the social aspect, Apacer tends to its employees and attaches great importance to the development of local communities. Combining the CSR and RBA's sustainable management values, Apacer continues to promote "Apacer A+ EAP (Employee Assistance Programs)," which provide a comprehensive welfare system and incentives in three different areas: Workplace, Family and Health. In 2019, Apacer was honored with the Sports Enterprise Certification Award by the Sports Administration, Ministry of Education. By creating a high-quality workplace, the Company retains talent and enhances the magnet effect of its brand. Since the development of local communities requires long-term commitment, Apacer has come up with two sustainable programs: "Green Cultivation Plan" and "Legacy Plan." The former focus on cooperation with local NPOs and the mobilization of employees in order to maintain the ecological balance of the community. The latter mainly focuses on cultivating youths. By sponsoring track & field team and traditional arts clubs, Apacer helps children pursue their dreams, and promotes as well as passes down traditional arts, echoing the main scheme to Apacer's CSR (Corporate Social Responsibility): "Create and share warm memories."

In terms of corporate governance, Apacer strictly abides by relevant laws and regulations when it comes to public information disclosure. By adopting a transparent business model, Apacer embraces the expectations of its stakeholders. In 2019, the Company ranked top 5% in the Corporate Governance

Evaluation for the first time; a clear indication that our efforts are in line with current regulations. In face of the rapidly changing memory module industry, we are working to reduce the impact of external environment changes on our operations in achieving sustainability. Apacer focuses on two types of products: Industrial process control and consumer products. When market prices fluctuate, balance of the overall operating efficiency can be achieved. Despite a slight decline in revenue compared to 2018, our gross margin has been raised to 18.7%, which is proof of our business strategy's success. Apacer has more than two decades of experience in the R&D of digital storage. In line with the development trend, Apacer has been actively deploying business groundwork in new markets in hopes of gaining business growth momentum. Our mid and long-term business goals are not only meant to pursue profit but also to respond to the needs of our stakeholders.

Finally, Apacer was awarded the Gold Medal in IT and IC Manufacturing Group, CSR Report category at the "Taiwan Corporate Sustainability Awards (TCSA)" for the second year in a row. To be sustainable, we need to expand the depth and variety of our business operations. Thanks to our dedicated employees, suppliers, and partners, we are able to yield excellent results. Upholding the philosophy, "Becoming Better Partners," we also ask our employees to bear our core value in mind to make Apacer a trust-worthy industry leader and respond to the global CSR trends. We also encourage our partners to join us in promoting CSR and optimize the international competitiveness of Taiwanese enterprises and "Becoming Better Partners" for people around the globe.

Sustainability Strategy Development (SSD)

A blueprint of sustainability strategies

Apacer launched a brand optimization project in 2018 by cooperating with professional consultants to interview employees, suppliers, and customers in refining Apacer's core value. Originally "Reliability and Innovation", Apacer's brand core value was transformed to "Becoming Better Partners," which means: "Delivering on Our Promise, Constant Improvement and Mutually Beneficial." In addition, the Company has planned long-term business strategies to respond to the United Nations Sustainable Development Goals (SDGs) with practical actions.

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Becoming **Better** **Partners**

Delivering on Our Promise

Based on transparency and honesty, we aim to pursue stable business operations, respond to local needs, and pass down Taiwanese culture.
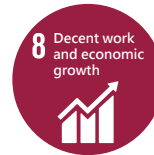
United Nations Sustainable Development Goals	8 Decent work and economic growth	11 Sustainable cities and communities	16 Peace, justice, and strong institutions
Target Items	8.2	11.6	16.5 / 16.6
Material Issues	R&D Innovation	Communications and Giving Back to the Local Community	Ethical Management
Apacer's Commitment	With our core in digital storage, Apacer is committed to training and recruiting talent. Apacer hopes to translate R&D innovation into profit, drive R&D growth, and maintain a sustainable business operation.	With sustainable management as the set goal, Apacer expects to make profit within five years and give back to the local community. Apacer is devoted to creating a synergistic hometown.	Apacer continues to strengthen corporate governance to enhance information transparency and respect the rights of shareholders and stakeholders.

Constant Improvement

Comply with regulations and continue to reduce the environmental impact of our products and manufacturing processes in working towards a green enterprise.

United Nations Sustainable Development Goals	6 Clean water and sanitation	12 Responsible consumption and production	13 Climate action
Target Items	6.3	12.2	13.3
Material Issues	Green Products and Services	Hazardous Substance Management	Green Products and Services
Apacer's Commitment	Lean manufacturing process helps to reduce power consumption. We are also working on reducing the environmental pollution in production operations by enhancing power-saving designs to create a smart green factory.	We are devoted to complying with RBA regulations and implementing HSF management standards for suppliers. Moreover, we hold a supplier conference every year to promote smart green management.	We promote green product design, implement internal environmental education, and internalize environmental protection concept into the Company's value chain to build a smart green factory.

Mutually Beneficial

Create a friendly workplace, manage a sustainable supply chain, and grow together with our business partners.

United Nations Sustainable Development Goals	3 Good health and well-being	4 Quality education	5 Gender equality	17 Partnerships for The Goals
Target Items	3.9	4.4	5.c.	17.16
Material Issues	Occupational Health and Safety	Employee Benefits, Talent Cultivation	Employee Benefits	Sustainable Supplier Management, Customer Relationship Management
Apacer's Commitment	We build a sound workplace in accordance with occupational safety regulations and obtain certification to establish a trustworthy employer brand.	We review training and development based on five phases of PDDRO (Plan, Design, Do, Review, and Outcome) to create a trustworthy employer brand.	Combining A+ Health, A+ Family, A+ Work with CSR & RBA as the vertical axis; food, clothing, housing, accessibility, education, recreation and exercise as the horizontal axis, we provide 28-program A+ EAP (Employee Assistance Programs) for our employees, thereby creating a trustworthy employer brand.	We update the customer service process, establish a global after-sales service system, and optimize product customization services to become a value-generating business partner for our customers.

Note: Please see P.8-31 for target items of United Nations Sustainable Development Goals (SDGs)
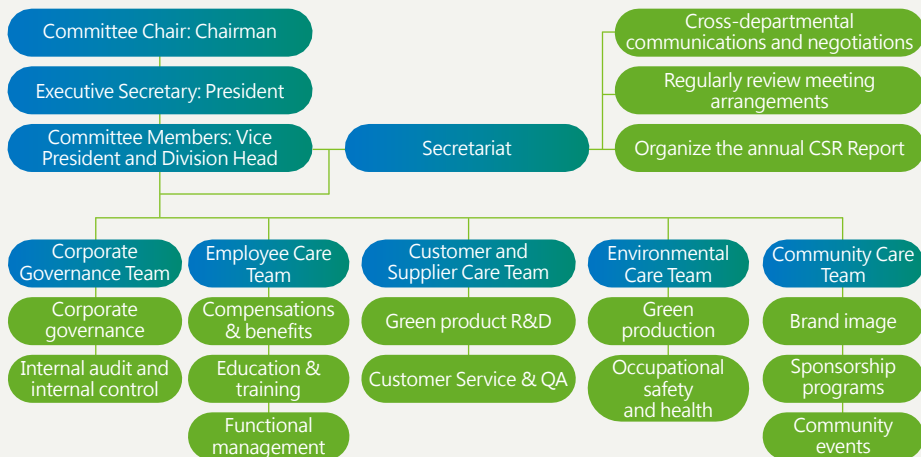
● CSR Internal Management Measures

CSR Committee – Organizational Structure

Apacer integrates sustainability into its business operations. In 2015, we established a CSR Committee that is chaired by our Chairman, while the President serves as the Head Secretary. Based on the Company's overall operational objectives, the CSR Committee establishes the overall direction of approach for Apacer's CSR sustainable management objectives and also proposes the Company's short, mid, and long-term CSR goals, strategies, and management systems.

The CSR Committee has established five working teams: "Corporate Governance," "Employee Care," "Customer and Supplier Care," "Environmental Care," and "Community Care." The managers of relevant departments are appointed as the heads of each team. Together with dedicated personnel, they integrate CSR objectives into daily businesses and sustainable development of each department.

CSR Committee – Organizational Structure

- Committee Chair: Chairman
- Executive Secretary: President
- Committee Members: Vice President and Division Head
- Secretariat
  - Cross-departmental communications and negotiations
  - Regularly review meeting arrangements
  - Organize the annual CSR Report

- Corporate Governance Team
  - Corporate governance
  - Internal audit and internal control
- Employee Care Team
  - Compensations & benefits
  - Education & training
  - Functional management
- Customer and Supplier Care Team
  - Green product R&D
  - Customer Service & QA
- Environmental Care Team
  - Green production
  - Occupational safety and health
- Community Care Team
  - Brand image
  - Sponsorship programs
  - Community events

● CSR Committee - Annual Management Process and Review

Chaired by the Chairman and the President, Apacer's CSR Committee meetings are held on a quarterly basis. It uses a systematic management method – the PDCA (Plan, Do, Check, Action) cycle, to monitor the progress of each team.

Annually /

At the end of each year, CSR implementation status and future planning will be reported to the Board of Directors by Secretariat Office of the CSR Committee at the beginning of the fiscal year, ensuring that the core of Apacer's business operations closely aligns with sustainable management.

Quarterly /

The Secretariat Office of the CSR Committee holds a quarterly meeting to review the goals of each team, including project progress, implementation deficiencies, and improvements. Cross-departmental communications and negotiations will be carried out to maximize results.

Key CSR accomplishments in 2019 /

Apacer ranked top 5% in the sixth Corporate Governance Evaluation, the fifth year in a row

Apacer was awarded the 2019 Sports Enterprise Certification Award by the Sports Administration, Ministry of Education

Apacer was awarded the Gold Medal in IT and IC Manufacturing Group, CSR Report category at the Taiwan Corporate Sustainability Awards (TCSA)

Stakeholder Engagement

● Stakeholders communication channels and issues

Stakeholder	The importance and meaning for Apacer	Channels and frequency of communications	Issues of concern	Apacer's response
Employee	Employees are Apacer's most valuable stakeholders. The creativity and high retention rate of employees are important foundations for Apacer to maintain its leading position in the industry.	1. Orientation training (irregular) 2. An internal employee grievance channel (at any time) 3. Regularly hold Labor-Management Conference (quarterly) 4. Regularly convene an Employee Welfare Committee meeting (quarterly) 5. Promote the Code of Conduct (irregular) 6. Occupational Health and Safety Committee (quarterly)	Employee benefits Occupational health and safety Talent cultivation	- Launch the Apacer A+ EAP (Employee Assistance Programs) - Reorganize the organizational structure, build Apacer Academy, and develop a dual-track talent system
Client	We develop new products and services based on customers' needs to provide the best product experience. Customers' requirements on the environment and social responsibilities prompt Apacer to continuously improve its own regulations.	1. Monitor customers' requirements and product status by CRM system (irregular) 2. Review regularly with sales representatives from major customers (quarterly) 3. Customer satisfaction survey and improvement measures (annually)	R&D and innovation Customer relations management	- We optimize after-sales services through system integration. We also pay close attention to customers' needs and improve process capability. With the help of a customer satisfaction survey, we improve deficiencies.
Shareholders / Investors	The capital investment represents the trust and support of shareholders/investors to the Company, enabling Apacer to continue to innovate toward sustainable operations.	1. Shareholders' Meeting (annually) 2. Investor Conference (annually)	Ethical management R&D and innovation	- Hold Shareholders' Meeting - Hold Investor Conference - Information transparency (Market Observation Post System and official website) - Strengthen the information disclosure in Mandarin and English on the official website
Suppliers	Suppliers are Apacer's key partners in fulfilling our green production. We work together with suppliers on sustainability issues through cooperation, communication, and coaching audits.	1. APG (Apacer Green Product Web System) Supplier Platform (irregular) 2. Supplier coaching and auditing (quarterly, every six months or every year) 3. Suppliers are required to sign the Declaration on Environmental Protection (irregular) 4. Convene a Supplier Conference(irregular)	Hazardous substance management Green products and services	- Carry out supplier evaluation (existing system coupled with RBA audit), hold Supplier Conference and coach suppliers - In compliance with ISO 9001 and QC 080000
Media	Media reports influence Apacer's image and the public's opinion. We convey our brand image through public relations management and communication with the media.	1. Press release (irregular) 4. Product review (irregular) 2. Press conference (irregular) 5. Media gathering (irregular) 3. Interview (irregular)	R&D and innovation Employee benefits	- Continue to encourage the development of patents - Continue to provide brand/product information - Continue to maintain media relations
Government Institutions	Global sustainability trends and government regulations are our ongoing focus, allowing us to better plan blueprints and strategies for corporate sustainability.	1. Company website (at any time) 2. Disclosing and reporting on Market Observation Post System(annually) 3. Participate in meetings and advocacy programs promoting questionnaire held by competent authorities (irregular)	Ethical management Occupational health and safety	- Corporate information is published on Market Observation Post System and official websites based on its importance - Internal promotion of compliance

Key CSR Performance in 2019

Economic and corporate governance

The annual revenue in 2019 reached NT$7.49 billion, with gross margin increased to 18.7%

Apacer was honored with the Taiwan Excellence Awards for 10 consecutive years. As of now, 52 of our products have received the award.

In 2020, Apacer ranked top 5% in the sixth Corporate Governance Evaluation.

Apacer ranked No. 35 in the Best Global Taiwan Brands and was listed as one of the "Emerging Brands" for 3 consecutive years.

Environmental

All products are lead-free.

All new employees have passed a general knowledge course on environmental protection and energy conservation.

By improving air-conditioning equipment on the seventh floor at the operating headquarters, we reduced electricity consumption by 30% in 2019.

All raw materials comply with EU RoHS standards.

Social

Apacer was honored with the 2019 Sports Enterprise Certification Award

Apacer was honored with the Gold Medal IE and IC Manufacturing Group, CSR Report category at the Taiwan Corporate Sustainability Awards (TCSA)"

Launched the Apacer Apacer A+EAP (Employee Assistance Programs) to improve employee welfare in three major aspects: Work +, Life +, and Health +.
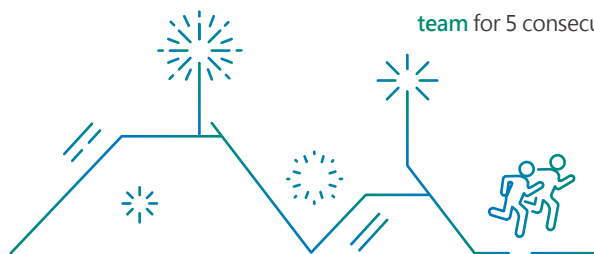
Sponsored **New Taipei Municipal Yulin Junior High School's track team** for 5 consecutive years.

Organized **Apacer's Tung Blossom One Day Volunteer Work** for 4 consecutive years to protect the ecological balance of the community.

Sponsored **the Folk Drums & Art Troupe at Tainan Municipal Daguang Elementary School** for a second year to support the development of traditional culture in Taiwan, passing down the "folk arts" and "memories."

Materiality Analysis

● Materiality Analysis Methods and Procedures

To allow information disclosure to better meet the expectations of stakeholders, this Report is based on the internal discussions of the CSR Committee. By adopting interviews in 2019, the in-depth examination by each team leader of the CSR Committee serves as the basis for compiling the Report. This provides stakeholders with a clear understanding of Apacer's various sustainability actions regarding governance, environmental protection, and contributions to society.

2018		2019	
Step1	**Step2**	**Step3**	**Step4**
Identifying stakeholders - **6** Major Stakeholders	Collecting sustainability issues- **29** Sustainable Issues	Analyzing the level of concern for the issues- In-depth interviews with **5** functional teams of the CSR Committee	Identifying important information- **10** Material Issues
Apacer's stakeholders were ranked with reference to the industry's characteristics, operating status, and the 5 Key Principles of AA1000 Stakeholder Engagement Standards (SES) - Dependency, Responsibility, Influence, Diverse perspectives, and Tension. Apacer's 6 major stakeholders were identified: Employees, shareholders/investors, suppliers, customers, media and government institutions.	The sustainability issues in this Report are based on the Global Reporting Initiative (GRI) Standards. With reference to the sustainability actions in both domestic and international electronics industries, 29 sustainability issues were chosen for evaluation after compilation and discussion in the CSR Committee.	Based on the results of the materiality analysis in 2018 and in-depth interviews with five functional teams of the CSR Committee, Apacer adjusts the priority of material issues according to the qualitative results of the interview and its future CSR development direction.	Referencing industry and sustainability trends, historic materiality analysis, and the results of qualitative interviews, the CSR Committee proposes 10 material issues after discussion. Approved by the top management, the issues will serve as key disclosure information in the 2019 CSR Report.

Materiality Analysis Matrix

This year's material analysis adopts qualitative interviews with CSR Committee to understand the level of concern of stakeholders and top management regarding sustainability issues and the impact of issues on the Company. 10 material issues were deemed as key disclosure information for this year's Report.

Material issues rated as of high importance

Material issues rated as of medium importance

Level of Impact to Apacer

High · Low

- ◆ R&D and Innovation
- ◆ Customer relation management
- ◆ Ethical management
- Communication and feedback to the local community
- ◆ Operational risk management
- ◆ Green products and services
- ◆ Employee benefits
- ◆ Sustainable supply
- ◆ Talent cultivation
- Hazardous substance ◆
- ◆ Occupational health and safety
- ◆ Labor rights of migrant workers
- ◆ Raw material
- ◆ Brand image
- ◆ Greenhouse gas emission
- ◆ Communication and consultation for employees
- ◆ Compliance with environmental laws
- ◆ Employee diversity and equal opportunity
- ◆ Product life
- ◆ Energy management
- ◆ Customer health and safety
- ◆ Customer privacy
- ◆ Wastewater discharge and waste
- ◆ Influence of operations on the local economy
- ◆ Forced labor
- ◆ Operational activities reviewed for human rights
- Local purchasing ◆
- ◆ Water resource management
- ◆ Freedom of association

Level of Concern from Stakeholders

Low · High

List of Material Issues

Issue Aspect	Material Issues	Material Topics	Importance to Apacer Technology Co., Ltd.	Corresponding Chapter	Page Number
Economic	R&D and Innovation	GRI 201 Economic performance	In face of the fast-changing industry, Apacer must maintain R&D acumen at all times to earn trust from customers with innovative products and services.	1.5 Innovative R&D	P.35
	Ethical Management	GRI 205 Anti-corruption	Apacer adheres to laws and regulations, ensures open and transparent information, operates the business with integrity, and is accountable to all stakeholders.	1.2 Ethical Management and Corporate Governance	P.21
Environmental	Green Products and Services	GRI 302 Energy	The sustainable green concept is put into practice from product design to manufacturing. With the goal of producing environmentally friendly products, Apacer hopes to create a green industrial chain.	2.2 Energy and Resource Management	P.41
	Hazardous Substance Management	GRI 308 Supplier environmental assessment	With a strong emphasis on the management of hazardous substances, Apacer carefully manages supplier management, storage, production line operations, and waste disposal processes to prevent harm on the people and the local environment.	3.1 Sustainable Supplier Management	P.49
	Sustainable Supplier Management	GRI 308 Supplier environmental assessment GRI 414 Supplier social assessment	Apacer helps partners strengthen their competitiveness and provides competitive purchasing conditions to drive the sustainable development of the supply chain.	3.1 Sustainable Supplier Management	P.49
Social	Employee Benefits	GRI 401 Employer/ Employee Relations	Focusing on the needs of our employees, we establish multiple communication channels and provide competitive compensation as well as professional development opportunities to build a happy workplace for our employees.	4.3 Employee Benefits and Communications	P.67
	Occupational Health and Safety	GRI 403 Occupational health and safety	Apacer provides a safe and healthy workplace environment in accordance with laws and regulations and regularly carries out inspections and improvements so that employees have peace of mind while working.	4.2 Employee Safety and Health	P.64
	Talent Cultivation	GRI 404 Training and education	Talent cultivation is the driving force behind Apacer's growth. Therefore, we have set a comprehensive blueprint for learning and a systematic approach to career development so that employees are motivated to learn. As a result, they become our competitive advantage.	4.5 Talent Cultivation and Development	P.77
	Communications and Giving Back to the Local Community	GRI 413 Local community	Apacer deeply cares about issues related to community and sustainable development. We respond to local needs with practical actions, hoping to give back to neighboring communities and society.	5.1 Local Participation 5.2 Social Concern	P.83 P.86
	Customer Relationship Management	GRI 416 Customer health and safety	Apacer is committed to practicing the brand core value, "Delivering on Our Promise, Constant Improvement, and work together." By exerting the spirit of "Becoming Better Partners," we provide products and services that meet customer needs.	3.2 Customer Relationship Management	P.55

Note:

In 2019, Apacer re-evaluated sustainability and material issues to demonstrate Apacer's actions and strategies in achieving sustainability. We have integrated "Supplier Social Impact Assessment" and "Supplier Environmental Assessment" into "Sustainable Supplier Management." We also added "Supplier Social Assessment" as a corresponding material topic. Since economic performance is the most important focus for the Company and the fact that it continuous to communicate with stakeholders, "economic performance" as a sustainable issue is deleted. Finally, in response to the RBA's requirements for human rights for migrate workers, "Labor right of migrant workers" is added. In 2019, Apacer identified 29 sustainable issues, of which 10 are material issues.

● Material Issues and Boundaries

After identifying material issues through materiality analysis and collecting data by referencing to GRI topics, we have explained how Apacer manages economic, environmental, and social impacts that are relevant to the material issues. To ensure the transparency and completeness of information disclosure, we define the boundaries of information both within and outside the organization.

Note: Different symbols indicate the degree of involvement of the organization in major issues. ▲ indicates that it causes direct impact; ● indicates that it contributes to impact; ■ indicates that it causes impact through business relations.

Category	Material Issues	Value chain					Relevant Stakeholder	Impact Description	Responsive Actions
		R&D and Improvement	Raw Material Procurement	Production	Product sales	After-sales service			
Economics	Ethical Management	●	●	●	●	●	- Shareholders / investors - Suppliers	Apacer strictly abides by the laws and regulations,conducts business and sales in a fair and transparent manner to prevent fraud and protect the rights of stakeholders.	- Establish Codes of Ethical Conduct - Establish Reporting System - Education and training on ethical management
	R&D and innovation	▲		▲	▲	▲	- Employees - Customers - Media	With rich R&D experience in the storage field, Apacer optimizes its footprint in consumer and vertical application areas and provides products and services that meet customers' needs.	- Continuous R&D investment - Establish a professional team that provides customized services - Establish five major patent themes - Establish relevant regulations governing rewards
Environmental	Green Products and Services	▲	■	▲	■		- Employees - Suppliers	Reduce energy consumption and comply with international hazardous substances regulations in design, raw material procurement, manufacturing and production processes	- Introduce ISO 14001 Environmental Management System - Sustainable Supplier Management - Green product design - Improve energy-saving process - Promote education and training on environmental protection
	Hazardous Substance Management		■	▲			- Employees - Suppliers	By introducing a management system and the relevant Hazardous Substance Regulations,we work hand-in-hand with suppliers to create a green and sustainable supply chain.	- Preparation for a new version of QC 080000: 2017 Hazardous Substance Management System - Hazardous Substance-Free (HSF) regulation for suppliers
	Sustainable Supplier Management		■				- Suppliers	Apacer evaluates, audit, and manages suppliers in compliance with the RBA Code of Conduct to lead suppliers to improve sustainable management momentum.	- Suppliers sign the Letter of Declaration for RBA - Supplier RBA management and coaching - Hold annual supplier conference

Category	Material Issues	Value chain					Relevant Stakeholder	Impact Description	Responsive Actions
		R&D and Improvement	Raw Material Procurement	Production	Product sales	After-sales service			
Social	Employee Benefits	●	●	●	●	●	- Employees	In addition to planning a competitive welfare system, Apacer is devoted to improving work-life balance for our employees in order to attract talent.	- Provide a welfare system that exceeds the requirements in the Labor Standard Act - Promote Apacer A+ EAP (Employee Assistance Programs) - Promote a sport-supporting and gender-friendly workplace
	Occupational Health and Safety			▲			- Employees	Apacer provides a healthy and safe workplace in accordance with laws and regulations and conducts regular inspections so that employees can work with peace of mind.	- Received the OHSAS 18001 Occupational Health and Safety Assessment Series certification - Conduct disaster prevention measures regularly - Implement safety and health education programs - Implement automatic inspection mechanism - Enhance Employee health management
	Communications and Giving Back to the Local Community				●		- Employees - Media	Encourage employees to respond to the needs of the local community by taking practical actions to create a livable and synergistic homeland.	- Continue to develop Green Cultivation Plan to promote a sustainable environment - Support local education - Promote traditional culture and art - Encourage employees to give back to the local community by practical actions
	Customer Relations Management	▲			▲	▲	- Customers	Apacer continuous to optimize the customer' experience flows and possesses a team of professionals that meets customers' needs from sales consultation to after-sales service.	- Improve global after-sales service system - A professional team to customize products - Conduct an annual customer satisfaction survey
	Talent Cultivation	▲	▲	▲	▲	▲	- Employees	Provide employees with competency training courses based on their needs. The training of professional talents can also benefit the Apacer's operations.	- Establish a learning blueprint for education and training - TTQS (Talent Quality-management System) - Establish a talent supply chain by offering professional courses to nurture talents

Note: Different symbols indicate the degree of involvement of the organization in major issues. ▲ indicates that it causes direct impact; ● indicates that it contributes to impact; ■ indicates that it causes impact through business relations.

Apacer's Contingency Plan in Response to COVID-19

Apacer has been able to draw from its experience in dealing with the SARS (Severe Acute Respiratory Syndrome) to implement risk control measures. In 2008, Apacer formulated its "Outbreak Prevention and Contingency Plan". In response to the COVID-19 outbreak, Apacer has revised this Plan and requested that its subsidiaries around the globe comply with this plan.

Apacer has learned from its experiences with SARS and has started strengthening the self-health management of its employees since February. Apacer's advanced deployments are as follows:

● Apacer's operating headquarters/

Self-Health Management

- Body temperature management: Employees' body temperatures must be checked every day before entering the workplace

- Travel history management: Keep track of employees' foreign and domestic travel history.

- Dining management: Non-shift workers should eat at their own seats and avoid eating out as a group. Shift workers may dine in the lounge on the first floor. While dining, only one person is allowed to sit at a table for four.

Office management

- Training management: All units are requested to suspend training courses. If mandatory courses (for example, new employee training) have been arranged, employees should wear a face mask and maintain an appropriate distance from others during the training course.

- Meeting management: All units are requested to reduce the number of meetings or shorten their meeting periods. As for necessary meetings, employees should wear a face mask and maintain an appropriate distance from others during the meeting.

- Confined space: When entering confined spaces such as elevators, production lines, warehouses, and laboratories, employees should wear a face mask and maintain an appropriate distance from others.

- Ventilation management: Windows should be opened in non-confined spaces, which can be adjusted due to different weather conditions (with the exception of production lines, warehouses, and laboratories where a strict control of humidity and temperature is required).

● Supply chain /

- Close to 80% of Apacer's suppliers are in Taiwan, while the rest of them are located overseas. In response to the pandemic, material backup and multi-site supply chains have been launched in January to mitigate geographical risks and increase supply chain flexibility.

- In the future, we shall establish a database for second source suppliers in advance, to reduce the risks of factors beyond our control.

● Client /

- In February, Apacer informed its customers that its operations and production capacity are back to normal since suppliers have resumed operations.

- In March, the President personally drafted a letter to our customers at home and abroad. We want to make sure that they feel valued in these difficult times and want to ensure them that we are here to provide any services they need.

● Community Policies for Combating COVID-19 /

In alignment with the policies of our headquarters located at the Yong-Ning Science Park, Apacer has established measures to control visitors and employees, such as reducing visiting times and limiting the spaces for visitors.
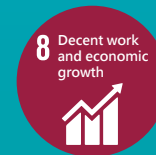
Chapter 1

Your Ideal Innovation Partner

Vision

Apacer creates a fast, stable, and reliable, intelligent storage application environment by upholding the vision "To become the leader in integrated information services centering on digital storage. " We hope to become a trusted value-added service integrator to provide customers with excellent products and services.

Policy and Commitment

Upholding "Access the best" as its commitment to its customers, Apacer continuously engages in innovation and expansion of products across different fields with the goal of becoming a technology-based information service integrator that outlines the blueprint for the future. Aside from pursuing growth and breakthroughs, we practice ethical operations and consider sustainable development to be a core value of our business as we continue to create value for our stakeholders.

Contribution to the United Nations Sustainable Development Goals (SDGs)

8 Decent work and economic growth

16 Peace, justice, and strong institutions

Issues of the Chapter

Material Topics : Ethical management — Corresponding Material Topic GRI 205 Anti-corruption

How to Manage

Responsibility	- Board of Directors - Corporate Governance Team, CSR Committee
Resources	- Manpower: The Chief Financial Officer is the person in charge, with 5 members from the Finance and Risk Management Division, Internal Auditing Office, and HR & Administration Department.
Channels of Communication	- Report annual planning and implementation of corporate governance in CSR Committee meetings - Once a year, report the status of training on ethical corporate management and any reported cases to the Board of Directors

Action

- Establish internal auditing and reporting system
- Protect shareholders' equity and treat all shareholders equally
- Strengthen the structure and operation of the Board of Directors
- Improve information transparency
- Implement corporate social responsibility

Sustainable Goal

Short-term goal (2020)	- Regularly report the communications made with various stakeholders to the Board of Directors - Strengthen information disclosure in both Mandarin and English, including annual reports to be delivered at the shareholders' meetings, as well as the company's official website, and Market Observation Post System.
Mid-term goal (2021~2023)	- Maintain top 6~20% in the Corporate Governance Evaluation
Long-term goal (After 2024)	- Continue to strengthen corporate governance to enhance information transparency and ensure the rights of shareholders and stakeholders

Evaluation Method

- Report to the Board of Directors for evaluation
- Operation of education and training on ethical management
- Operation of the reporting system
- The results of Corporate Governance Evaluation

Achievements and results in 2019

Achieved goals :
- Reporting system: No cases were reported in 2019
- Hold training on ethical management: A total of 491 participants in 2019.
- Corporate governance achievements:

1. The Board of Directors passed "Performance Evaluation on Board of Directors" and completed self-evaluation made by the Board of Directors and the Functional Committee. The results of the self-evaluation were simultaneously disclosed on the Company's official website.
2. Strengthened information security management, and formulated specific management policies which are simultaneously disclosed on the Company's official website.
3. Continued improvement of information disclosure on Annual Reports and the official website.

Contribution to the United Nations Sustainable Development Goals (SDGs)

SDG 8: Decent Work and Economic Growth   SDG 16: Peace, justice and Strong Institutions

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Material Issue : R&D and Innovation — Corresponding Material Topic GRI 201 Economic performance

How to Manage

Responsibility	- R&D and Technology Center
Resources	- Manpower: 68 staff in the R&D Division - Budget: Compile and review budget based on research and development needs - Technology: Continue to carry out a patent and R&D development
Channels of Communication	- Patent Development Committee and a Patent Review Team are established to undertake an internal patent review and business opportunities planning

Action

- Offer R&D and customization services
- Professional software, hardware, and firmware design teams
- Establish five major patent themes and periodically review progress
- Clearly establish relevant regulations governing rewards and encourage patent commercialization

Sustainable Goal

Short-term goal (2020)	- With digital storage technology as core, Apacer continues to cultivate and hire talents in professional fields to keep up with new technologies and trends.
Mid-term goal (2021~2023)	- R&D innovation technologies are translated into substantial business benefits
Long-term goal (After 2024)	- Drive R&D momentum and maintain sustainable operations

Evaluation Method

- Annual number of patent grants

Achievements and results in 2019

Achieved goals :
- A total of 37 patents are granted in 2019, which is an increase of 76% compared to 2018.
- Received the Taiwan Excellence Award (1 item)
- Launched competitive products and technologies, such as DDR4 32GB industrial-grade memory, M.2 PCIe Gen4x4 solid-state drive, and "event shot" for environmental monitoring.

Contribution to the United Nations Sustainable Development Goals (SDGs)
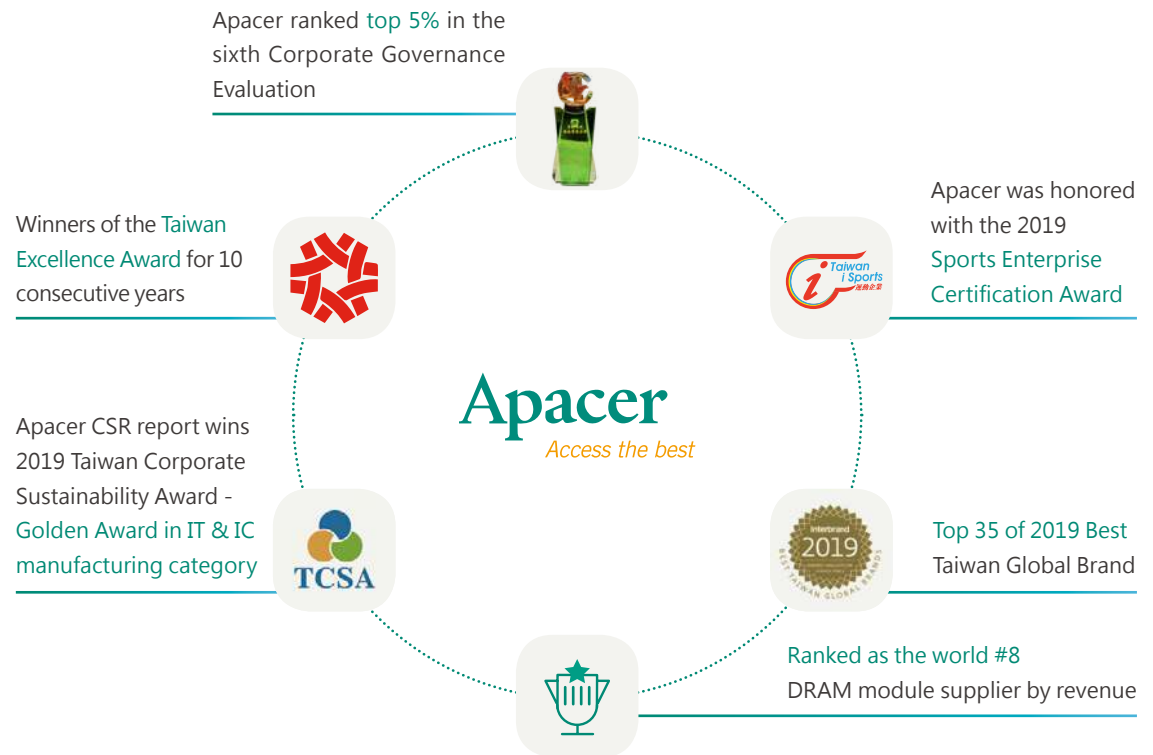
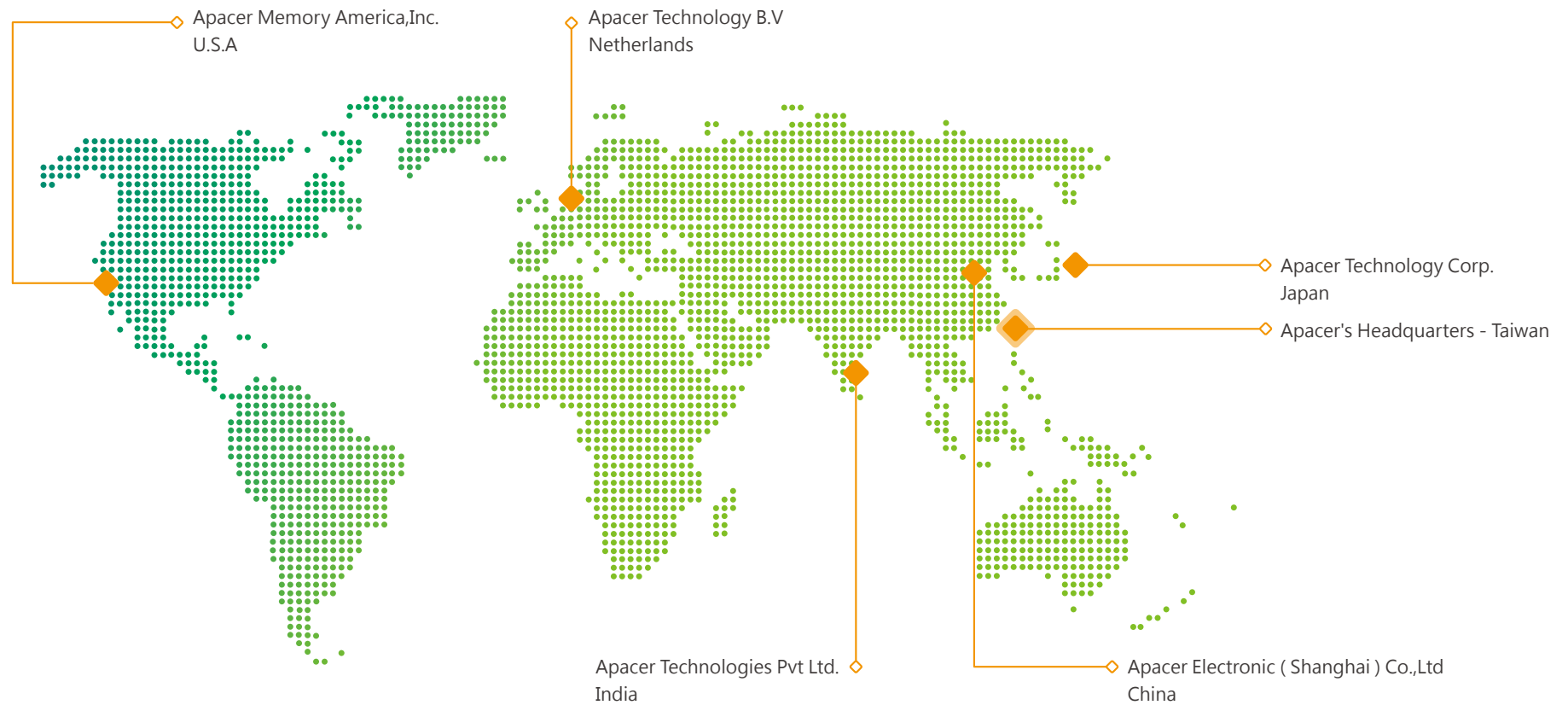SDG 8: Decent Work and Economic Growth

1.1 About **Apacer**

Founded in 1997, Apacer has been a company listed on the Taiwan Stock Exchange Corporation (TWSE) since 2010. Apacer's products include consumer memory products and industrial control memory modules. In recent years, Apacer sought development in emerging application and gaming markets.

Apacer has integrated R&D, design, production, and marketing competencies. By upholding "Delivering on our promises, Constant improvement, Mutually beneficial", Apacer embodies the brand's promise of "Access the Best" and provides solutions for clients as well as products that satisfy the needs of customers. Over the years, Apacer has won numerous awards and is now an internationally renowned brand regarding software, hardware and firmware integration.

With our global operating headquarters located in New Taipei City, Taiwan, Apacer's business scope spans across five continents. We have subsidiaries in China, the U.S.A, the Netherlands, Japan, and India. Our clientele includes global distributors, equipment manufacturers, equipment integrators, system integrators, and retailers. Apacer is dedicated to cultivating the global market with our close-knit retail channels and partners.

Apacer ranked top 5% in the sixth Corporate Governance Evaluation

Apacer was honored with the 2019 Sports Enterprise Certification Award

Winners of the Taiwan Excellence Award for 10 consecutive years

Apacer CSR report wins 2019 Taiwan Corporate Sustainability Award - Golden Award in IT & IC manufacturing category

Top 35 of 2019 Best Taiwan Global Brand

Ranked as the world #8 DRAM module supplier by revenue

Apacer
Access the best

Apacer Memory America,Inc.
U.S.A

Apacer Technology B.V
Netherlands

Apacer Technology Corp.
Japan

Apacer's Headquarters - Taiwan

Apacer Technologies Pvt Ltd.
India

Apacer Electronic (Shanghai) Co.,Ltd
China

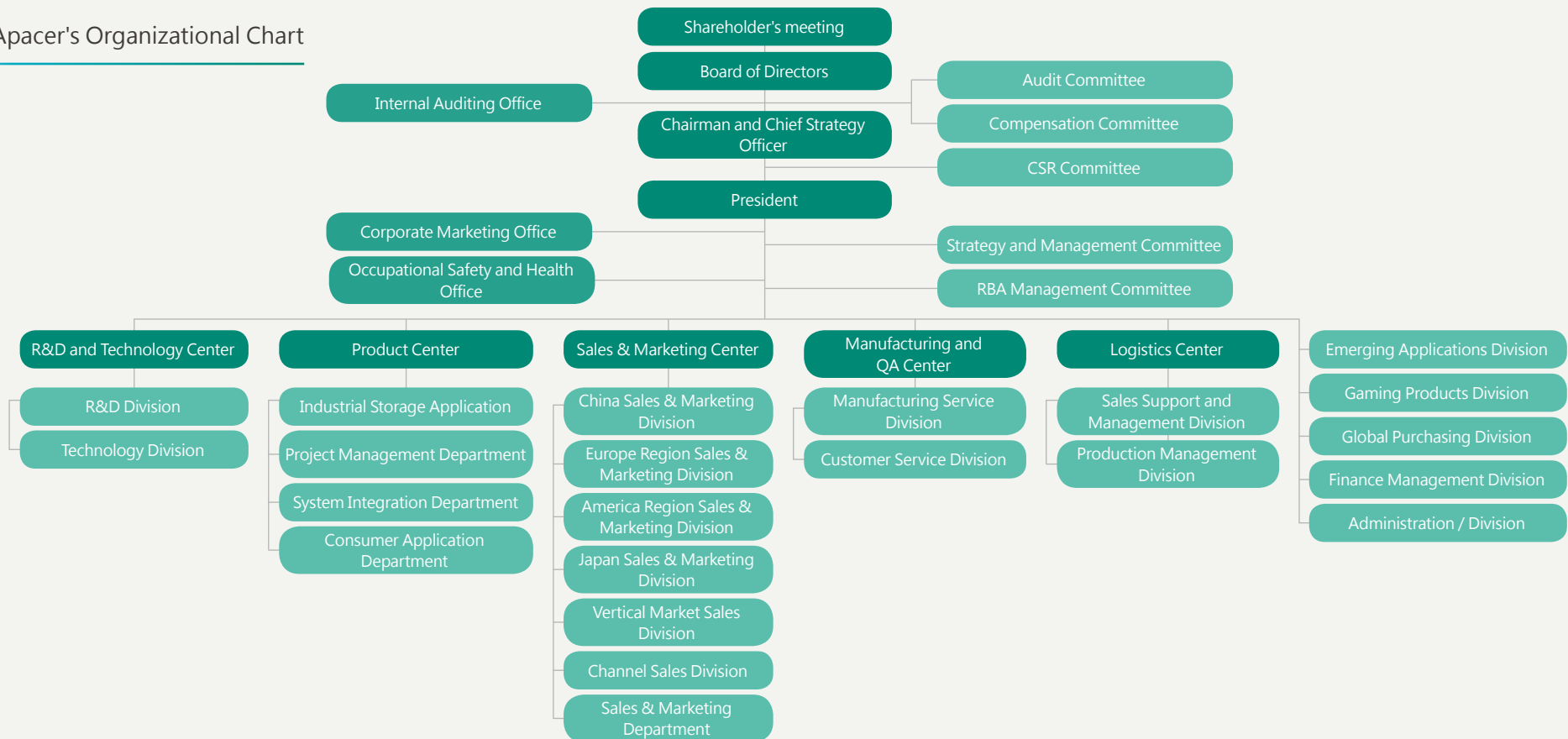| Name of the Company	Apacer Technology, Inc.	Main Products	- Industrial solid-state drives (SSD)	- Flash drives/External hard drives
Company Address	1F., No.32, Zhongcheng Rd., Tucheng Dist., New Taipei City 236		- Memory modules	- Emerging application solutions
Date of establishment	April 16, 1997		- Consumer digital products	- Optical inspection applications
Stock Information	Taiwan Stock Exchange Corporation (stock code: 8271)	Total Employees[1]	586	
Capital	NT$ 1.008 billion			Note 1: Data taken as of December 31, 2019

Corporate Organization and Culture - People-Oriented and Building a Happy Workplace

Apacer upholds our core value:"Do what we said, Constant Improvement and Mutually Beneficial." in building a sustainable enterprise and achieving a win-win for customers, suppliers, employees and partners; thereby becoming the leader in integrated services for digital storage. In face of the speed economy era, Apacer leverages various business innovation models, and creates synergy to gain rapid growth in sales performance. In 2020, Apacer underwent restructure into becoming a functional organization, with five major functional centers, five new business/support divisions and one Corporate Marketing Office supervised by the President.

Apacer's Organizational Chart

- Shareholder's meeting
- Board of Directors
  - Audit Committee
  - Compensation Committee
  - CSR Committee
- Internal Auditing Office
- Chairman and Chief Strategy Officer
- President
  - Strategy and Management Committee
  - RBA Management Committee
- Corporate Marketing Office
- Occupational Safety and Health Office

- **R&D and Technology Center**
  - R&D Division
  - Technology Division
- **Product Center**
  - Industrial Storage Application
  - Project Management Department
  - System Integration Department
  - Consumer Application Department
- **Sales & Marketing Center**
  - China Sales & Marketing Division
  - Europe Region Sales & Marketing Division
  - America Region Sales & Marketing Division
  - Japan Sales & Marketing Division
  - Vertical Market Sales Division
  - Channel Sales Division
  - Sales & Marketing Department
- **Manufacturing and QA Center**
  - Manufacturing Service Division
  - Customer Service Division
- **Logistics Center**
  - Sales Support and Management Division
  - Production Management Division
- Emerging Applications Division
- Gaming Products Division
- Global Purchasing Division
- Finance Management Division
- Administration / Division

Department	Roles and Obligations	Highest-ranking Supervisor
Internal Auditing Office	Review the effectiveness of the Company's various systems and operations and submit relevant reports	Deputy Manager: Meng-Ling Cheng
Chairman's Office	Propose the Company's long-term vision and strategy, as well as implement corporate governance related matters.	Chairman: Austin Chen
President's Office	Responsible for the planning of the Company's global operations and management strategies.	President: Chia-Kun Chang
R&D and Technology Center	Responsible for research and development of new technologies and products.	Senior Division Manager: Chun-Chang Li
Product Center	Responsible for market analysis and product marketing.	Senior Division Manager:Hua-Chun Yin
Sales and Marketing Center	Responsible for business promotion and customer relations.	Senior Division Manager:Mei-Hui Huang
Manufacturing and QA Center	Responsible for manufacturing and quality assurance.	Division Manager: Yao-Tse Yu
Logistics Center	Responsible for integrating global customer demand and simulating material supply and demand	Senior Division Manager: Hsueh-Ju Luo
Emerging Applications Division	Propose marketing and sales strategies for emerging application solutions.	Division Manager: Chih-Liang Lin
Gaming Products Division	Responsible for marketing and business promotion of gaming products.	Acting Senior Division Manager: Hsueh-Ju Luo
Global Sourcing Division	Responsible for procurement and bargaining of raw materials and components around the globe	Acting Senior Division Manager:Hua-Chun Yin
Financial Management Division	Responsible for the Company's global accounting, financial management, and risk control planning.	CFO and Spokesperson: Tzu-Wen Lai
Administration Division	Responsible for global information, human resources and intellectual property management.	Division Manager: Cheng-Chung Hsieh

● Brand Spirit

"Access the best" is our brand promise. We aim to use storage technology as foundation in providing our customers with satisfying products and services.

Since 2018, Apacer has been exploring brand core values that best fit our needs through internal and external reviews to support long-term brand development and sustainable operations. We internalize the meaning of "Becoming Better Partners", i.e. "Delivering on our promises, Constant improvement, Mutually beneficial" into our corporate culture. We encourage all employees to join hands with our partners in the pursuit of breakthroughs in terms of product quality, R&D, innovation and after-sales services. We provide products that meet the needs of our customers and create the best user experience.

Brand promise

Apacer
Access the best

Brand core value

倍立刻米
Becoming Better Partners

Business Scope

"Apacer" brand has always been the Company's development focus. The revenue from our own brand products accounts for as much as 90% of our total revenue. Having accumulated over 22-years of experience in the digital storage field, we use our great R&D capabilities to provide innovative products.

In order to expand business diversification operations and prepare for long term development, not only have we focused on consumer digital storage products in recent years, but we have also expanded to vertical market applications. Apacer has also launched product lines for the unique demands of the gaming market in recent years. In addition, since AIoT is undoubtedly the future technology trend, we have set up a related BU back in 2017 to implement our long-term approach in achieving sustainable innovation.

Apacer is widely praised for insisting on the best

Apacer's award record over the years

Ranked top 5% in the Corporate Governance Evaluation for the first timer
As the only company in the industry to be ranked top 5% in the fifth Corporate Governance Evaluation, Apacer is recognized for its dedication to improving corporate governance.

Winners of the Taiwan Excellence Award for 10 consecutive years
Apacer was awarded with the Taiwan Excellence Award in 2019, fully demonstrating our commitments and achievements in R&D and innovation.

Awarded the Taiwan I Sports Certification
Apacer encourages employees to develop exercise habits and for the first time ever, was honored with the Sports Enterprise Certification Award by the Sports Administration, Ministry of Education.

Received the Gold Medal IE and IC Manufacturing Group, CSR Report category at the Taiwan Corporate Sustainability Awards (TCSA)
Having made significant progress in terms of corporate social responsibilities, we received the Gold Medal for the second consecutive year and greatly improved in terms of ranking.

1.2 Ethical Management and Corporate Governance

Enhance Corporate Governance

Apacer continues to make improvements on its corporate governance, and has seen progress in the Corporate Governance Evaluation in recent years. In 2016, Apacer ranked 36~50% in the third Corporate Governance Evaluation. As for the fourth Corporate Governance Evaluation in 2017, Apacer ranked 21~35%. Then in 2018 and 2019, we made giant strides and ranked top 5% for two consecutive years.

Apacer's performance on corporate governance over the years

Year	Evaluation
2016	The3th Corporate Governance Evaluation **36-50%**
2017	The 4th Corporate Governance Evaluation 21-35%
2018	The 5th Corporate Governance Evaluation Top 5%
2019	The 6th Corporate Governance Evaluation Top 5%
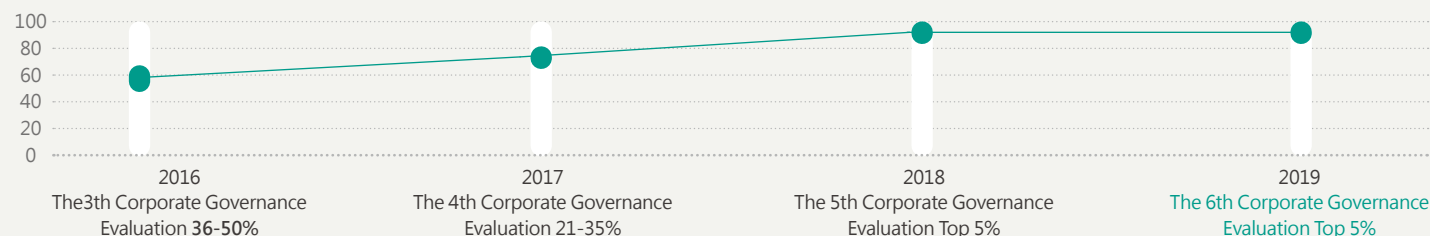
Apacer continues to make corporate governance improvements in 2019 through the following actions:

1.
The Annual Report discloses the reasons for the discussion and resolution of the Compensation and Benefits Committee, as well as the Company's handling of the Committee's suggestions.

2.
The Board of Directors passed the "Performance Evaluation of Board of Directors" and completed the self-evaluation of the Board of Directors and the Functional Committees. The results of the self-evaluation were simultaneously disclosed on the Company's official website.

3.
Strengthened information security management and formulated specific management policies.

4.
Continue to improve the transparency of information and strengthen information disclosure in Mandarin and English on the official website to protect shareholders' equity.

Board of Directors

The transparency, professionalism, and efficiency of Apacer's Board of Directors are what guarantee effective corporate governance. The Board of Directors supervises the Company's major decisions after evaluating global occurrences, market observations, and financial assessments. With professional judgment, Apacer protects shareholders' equity, enhances operating performance, ensures proper supervision by Independent Directors, strengthens risk management, and guarantees information transparency.

Currently, the Board of Directors comprises nine seats. Among them, three serve as Independent Directors, with one of them being female. The number of Independent Directors exceeds that required by the law. One of the Directors is between 30 to 50 years old, while eight of them are above 50 years old. The Board of Directors convened five meetings in 2019, with an average attendance of 95%. The members of the Board of Directors fulfill their obligations with due diligence and commit to information transparency, legal compliance, and the full disclosure of material information. The members of the Board propose business operation suggestions based on their professional background and experiences in dealing with the market. The Board respects the opinions of Independent Directors and records the reasons for their approval or objection in the meeting minutes, adopting recusal principles to effectively protect the interests of the Company.

Title	Name	Gender	ActualAttendance	Attendance by proxy	Actual attendance ratio (%)
Chairperson	Austin Chen	Male	5	0	100%
Director	Li-Da Lu	Male	5	0	100%
Director	C.K. Chang	Male	5	0	100%
Director	Hung-Po Hsieh	Male	5	0	100%
Director	Shao-Hua Huang	Male	3	2	60%
Director	Representative of Phison Electronics Corp. Wen-Chieh Weng	Male	5	0	100%
Independent Director	Kuang-Yi Wu	Male	5	0	100%
Independent Director	Chin-Pin Peng	Male	5	0	100%
Independent Director	Hui-Chuan Hsieh	Female	5	0	100%

Note: Summary of Board of Directors' major resolutions: (Click here to download relevant Board of Directors resolutions)

● Functional Committee

Compensation and Benefits Committee

Established / in August 2011

Function / Assist and review the following matters

- Board of Directors evaluates the Company's compensation and benefits policy
- Policies, systems, assessment benchmarks and structures for performance evaluation and compensation for directors and managers

Attendance rate for the Committee /

Title	Name	Actual attendance	Actual attendance ratio (%)
Convenor	Kuang-Yi Wu	3	100%
Member	Chin-Pin Peng	3	100%
Member	Hui-Chuan Hsieh	3	100%

Audit Committee

Established / in May 2018

Function / Audit and supervise the following matters

- Fair financial statements
- The election (dismissal) of certified public accountant and relevant compensation
- The independence of a certified public accountant
- Effective implementation of the Company's internal control
- The Company's compliance with relevant laws and regulations
- Control over the Company's existing or potential risks

Attendance rate for the Committee /

Title	Name	Actual attendance	Actual attendance ratio (%)
Convenor	Kuang-Yi Wu	5	100%
Member	Chin-Pin Peng	5	100%
Member	Hui-Chuan Hsieh	5	100%

Cornerstone of Corporate Sustainability - Ethical Management

Upholding ethical management, Apacer conducts all business activities in a fair and transparent manner, and actively prevents unethical behaviors across all of its business operations. In addition, Apacer has established a reporting system that allows the Reporting of violations regarding the Company's financial system, government regulations and policies, and ethical standards as well as any form of malpractice. Apacer designates processing personnel for a whole range of issues, including ethical management, ethical conduct, CSR practices, and the Reporting system.

Codes on ethical management are published on the Company's Intranet for internal promotion. Annual education training held in 2019 includes issues related to the Responsible Business Alliance (RBA), such as labor, health and safety, environmental health, code of ethics, and management system. The total number of participants was 491. Apacer achieved 100% employee training rate.

Principle	Summary
Ethical Corporate Management Procedures and Code of Conduct	Strictly requires employees to avoid instances where their personal gains are in conflict with the overall interest of the company.
Code of Ethical Conduct	Guides members of the Board of Directors and managers to comply with the ethical standards and helps Company stakeholders gain a better understanding of Apacer's ethical standards.
Corporate Social Responsibility Best Practice Principles	Clearly stipulates that the Company must value corporate governance, social, and environmental factors in the pursuit of sustainable operations and profitability. These aspects shall be included in the Company's management objectives and operating activities.
Reporting System	Establishes rules and procedures for the "reporting system." Any inappropriate business conduct should be reported through relevant channels and be investigated and handled by relevant personnel.
Education and Training on Ethical Management	Offers courses related to RBA issues, such as labor, health and safety, environmental health, code of ethics and management system.

Note: Important internal rules of the Company: (Click here to download relevant rules and regulations)
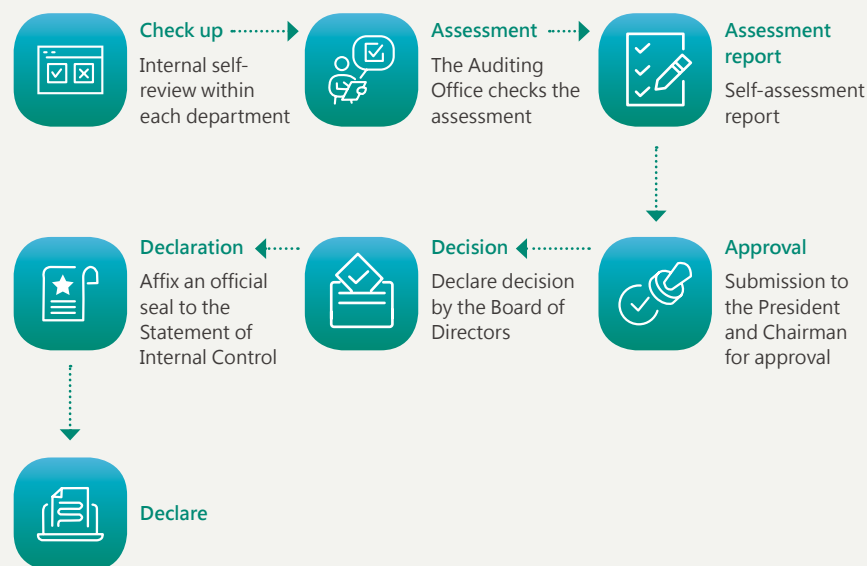
Apacer has operating branches are all over the world. We strictly require all operating sites to comply with regional regulations and pay attention to domestic and foreign policies as well as regulations that may affect the Company's operations. Additionally, the Auditing Office helps in evaluating and reviewing the effectiveness and rationality of the internal control system. In addition, to maintain the Company's image, all members of the Company can report any illegal, fraudulent matters and matters that damage the company's interests and reputation through the reporting system.

Internal Audit

Apacer establishes internal auditing system in accordance with the law. Set under the Board of Directors, the Internal Auditing Office consists of two full-time personnel responsible for internal auditing. The internal auditors formulate an annual auditing plan (including self-assessment) based on risk assessment and relevant laws and regulations. Through the implementation of the auditing plan and the self-inspection, Apacer continues to audit the risk items and regularly reports the results to the Audit Committee and the Board of Directors.

Apacer develops 7 internal control procedures to comply with all laws and to effectively strengthen internal risk control:

Check up
Internal self-review within each department

Assessment
The Auditing Office checks the assessment

Assessment report
Self-assessment report

Declaration
Affix an official seal to the Statement of Internal Control

Decision
Declare decision by the Board of Directors

Approval
Submission to the President and Chairman for approval

Declare

Note: Organization and operation of the internal audit: Click here for further details.

Reporting System

Apacer addresses corruption, fraud and all ethical violations with absolute solemnity. To this end, the regulations for the "Reporting System" is established. Any inappropriate business conduct should be reported through relevant channels and be investigated by relevant responsible personnel.

Apacer sets up "Code of Ethics for Employees" to provide reporting channels for unethical behavior. Unless otherwise stated by law, all informers have been promised anonymity. Apacer will keep the identity of the informer and the contents of their report confidential. The Company also protects informers and persons in charge of investigation, ensuring that they are free of unfair treatment. The "Reporting Committee" is the contact window for all reporting affairs. No relevant matters have occurred during this CSR Report's disclosure period of 2019.

- Reporting contact window / Mr. Cheng
- Reporting hotline / (02)2267-8000 #5903
- Reporting e-mail / whistleblower@apacer.com
- Reporting address / Reporting Committee at 6F., No. 32, Zhongcheng Rd., Tucheng Dist., New Taipei City 236

Organizational Risk Management Objectives

To implement corporate operational risk management and strengthen corporate governance, Apacer systematically strengthens the Company's risk-oriented strategies and management measures from two aspects - operational risk and climate change risk by engaging in risk identification, assessment, processing and implementing response mechanisms.

Operational Risk Management

Apacer defines organizational units and the division of responsibilities according to different types of operational risks. We collect information on possible international and industrial operational risks to identify the likelihood of occurrence, level of impact and response measures, as week as regularly evaluate and report the risk management performance to relevant managers.

Board of Directors

Internal Auditing Office

Chairman

President

Legal Office

Financial Management Division

Other Departments

Financial and Risk Management Department

Risk Management

Accounting Department

Reinvestment Management

Types of Operational Risks	Responsible unit	Explanation of responsibilities	Risks issue	Responsive Action
Internal control risks	Internal Auditing Office	Examine and evaluate the internal control of the Company's operating procedures, and report whether the design and routine practice of such controls are appropriate, as well as their effectiveness and efficiency.	Operation error	Regularly or irregularly carry out audits on operation processes with high risks based on risk assessment. Inform handling unit based on audit findings. Request handling unit to propose an improvement plan and track the improvement to tackle deficiencies.
Legal risks	Legal Office	Responsible for legal risk management, contract review and handling litigation disputes to reduce relevant risks	Increasing Information protection awareness	The EU General Data Protection Regulation (GDPR) went into effect on May 25, 2018. The Legal Office cooperates with Apacer's subsidiary in the Netherlands to establish relevant safety and management measures that meet the GDPR regulations and protect personal information. GDPR training courses are provided for relevant personnel.
Financial risks	Financial and Risk Management Office	Responsible for financing, funding, as well as planning and execution of financial hedging	Exchange rate fluctuations	Fluctuations in the exchange rate can lead to losses. Regularly evaluate foreign exchange assets that are exposed to risk, and submit a hedging strategy to relevant supervisors for approval
Strategic operational risk	Accounting Department	Grasp in-depth understanding of the reinvestment performance and provide management with timely and adequate information to better plan the use of Company funds.	Operating performance of subsidies	Regularly carry out performance reviews and report relevant issues to top management, as appropriate.
Supply chain risks	Manufacturing and QA Center	Compliance with RBA regulations and review the safety of suppliers' working environments and the human rights of their employees, thereby reducing supply chain risks.	Sustainable supplier management	1. Hold annual supplier conferences to communicate RBA regulations to suppliers. 2. Establish audit mechanisms to review suppliers' implementation of RBA regulations.
Environment and climate change risks	HR and Administration Department	Responsible for avoiding risks related to environment and climate change.	Greenhouse gas emissions and the impact of climate change	Implement energy-saving and carbon-reduction measures, such as replacing the old air-cooled chiller on the seventh floor with a more efficient water-cooled chiller to achieve energy conservation and carbon reduction.

Future planning to identify risks and opportunities related to climate change
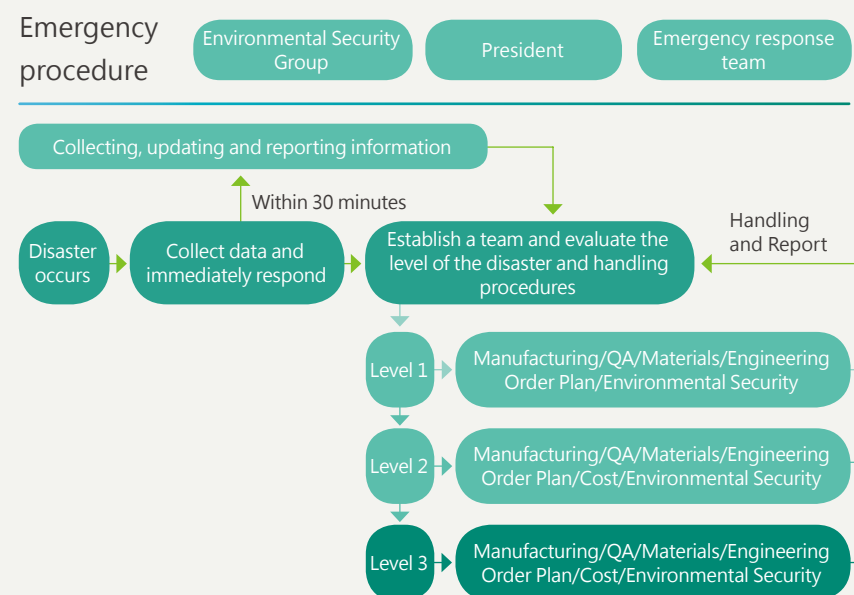
In order to respond to the operational risks associated with environment and climate change, Apacer plans to discuss and evaluate the financial impact on the quarterly review meeting of the CSR Committee starting in 2020. The implementation and relevant result will be disclosed in the 2020 CSR Report.

Business Continuity Plan

As climate change leads to frequent climate anomalies, Apacer has listed natural disasters as an important risk assessment target and developed a Business Continuity Plan (BCP) to comprehensively assess the risk of natural disaster disruptions and develop relevant response measures. We establish relevant backup steps and principles to improve the efficiency of our incident response actions, thereby lowering possible losses. Apacer has planned five steps regarding our Emergency Response Principles.

Furthermore, relevant response procedures are established. The Environmental Security Group are responsible for the frontline collection of relevant information and provide the information, information updates and feedback by which the Emergency Group identifies the disaster level and immediately responds.

Planning 1 → Prevention 2 → Stand-by 3 → Response 4 → Recovery 5

Response Principles	Implementation Objectives
Planning	Established Emergency Response Group.
Prevention	Regularly review and adjust the team members and equipment, while also establishing backup equipment at relevant facilities to ensure normal operation during disasters.
Stand-by	Regularly undertake practice drills and protect important assets as well as personnel
Response	The Emergency Group can effectively operate during major disaster or prevention, and can undertake all decisions regarding response procedures and communications with external parties.
Recovery	Undertake recovery procedures until all production and sales activities resume normalcy after a major disaster.

Emergency procedure

Environmental Security Group | President | Emergency response team

Collecting, updating and reporting information

Within 30 minutes

Handling and Report

Disaster occurs → Collect data and immediately respond → Establish a team and evaluate the level of the disaster and handling procedures

Level 1 → Manufacturing/QA/Materials/Engineering Order Plan/Environmental Security

Level 2 → Manufacturing/QA/Materials/Engineering Order Plan/Cost/Environmental Security

Level 3 → Manufacturing/QA/Materials/Engineering Order Plan/Cost/Environmental Security

Note:
Level 1: Local production site cannot carry out normal production due to a disaster.
Level 2: Regions on the island cannot carry out normal production due to a disaster.
Level 3: Production sites throughout the island cannot carry out normal production due to a disaster.

Operating Strategy and Performance

Operating Strategy Planning

Apacer is one of the few memory module manufactures in the industry that develop both consumer and industrial products. The main purpose of this operating strategy is to balance operations and offer branding benefits that will contribute to the Company's sustainable operation. The memory industry is greatly affected by the external environment, which is why the industry experiences great price fluctuation. Therefore, having both industrial control product lines (which are resilient to price fluctuations) and consumer product lines (which quickly respond to price changes), Apacer can adjust the price difference as appropriate to achieve a business balance. In addition, the promotion of consumer products helps expand the brand's variation, increasing market share, and contributing to the accumulation of brand value in the long-term.

Short-term operating strategy
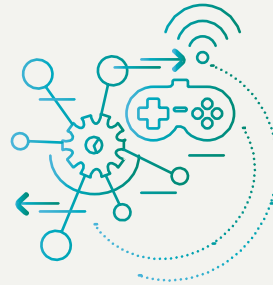
Focusing on seven major application fields of industrial control terminals (including national defense applications, transportation, smart healthcare, games, servers and Internet, IoT, and factory automation), Apacer engages in active research and development of digital storage products and development of esport markets. Moreover, we use emerging application to develop IoT-related services and applications.

Long-term operating strategy

- Improve product value and differentiate the Company from the competitors：
  Continue to add value to our products and solve customers' troubles. to establish brand position and differentiate Apacer from the competitors.

- Introduce talents and accumulate future technologies：
  Through hiring and retaining talents, Apacer has cultivated R&D momentum in order to make appropriate deployments in advance.

- Lean process management and optimized service system：
  In response to digital and lean management process, Apacer has combined multiple systems to strengthen production quality and after-sales service to promptly respond to customers' needs.

- Have our professional team serve clients and continue to develop marketing channels：
  Customers are served by a professional team from front-end to after-sales to create a comprehensive sales experience. Apacer continues to develop sales channels.
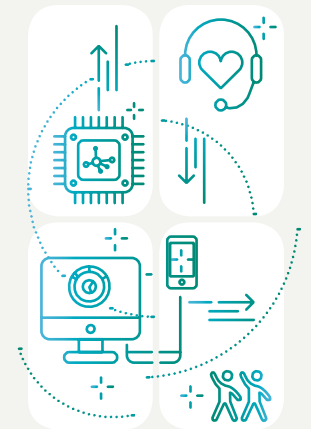
Corporate Development Vision - Technology Information Service Integration Ecosystem

With the vision of "focusing on digital storage and becoming the leader in the integration of technology-based information services," Apacer actively combines the talent training system and the Company's philosophy of "Becoming Better Partners" to expand brand value from the inside out. Moreover, with our technical proficiency acts as a foundation and supplemented by solid brand values, Apacer has developed an "analysis, sharing, reception, and control" ecosystem centered around storage technology, thereby becoming a sustainable corporation with competitive strengths in the intensely competitive market.
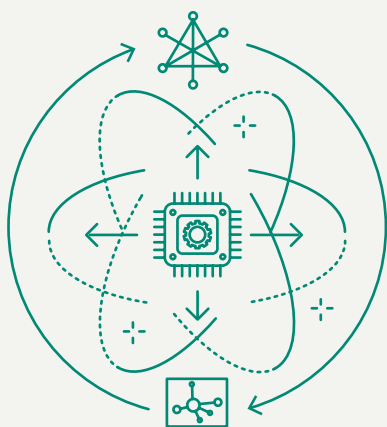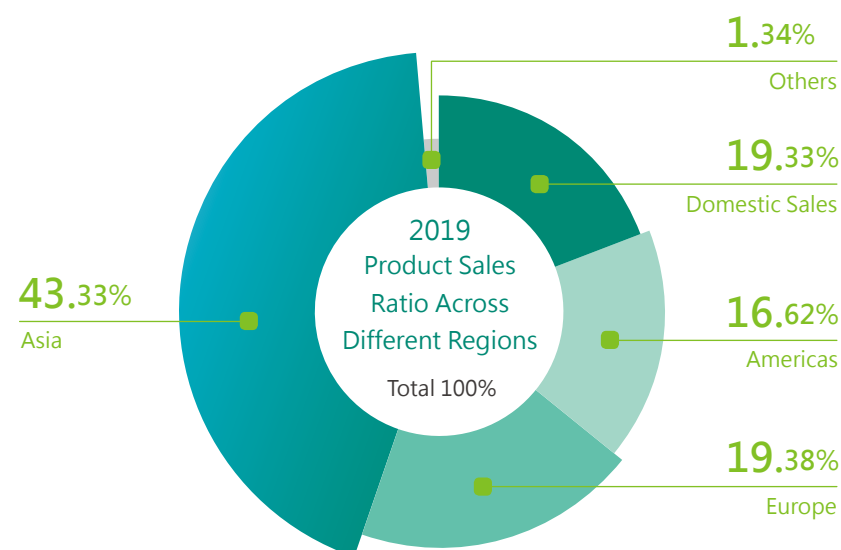
Financial Performance

Striving for long-term operational performance, stable profits and growth, Apacer continues to maximize value for all shareholders and stakeholders. We develop a whole variety of products in achieving stable profit and becoming a technological information service integrator.

Item	2017	2018	2019
Revenue	10,043,476	9,441,618	7,485,821
Gross Profit	1,298,790	1,309,289	1,400,243
Operating Income	474,842	437,883	483,595
Net Income After Tax	404,957	358,830	376,629
EPS (NT$)	4.02	3.56	3.73

Unit: NT$ 1,000

Note: Financial numbers are taken from the Annual Consolidated Financial Statements and have been audited by a CPA.

Cultivation in Taiwan with focus on the global market

Apacer's clientele includes distributors, information equipment manufacturers, system integrators, and retail customers around the globe, with sales networks covering five continents. Thanks to its sound retail system and partners in different markets, we provide digital storage applications that offer high performance, high stability, and high value, as well as offer integration services in striving for perfection.

1.34% Others

19.33% Domestic Sales

16.62% Americas

19.38% Europe

43.33% Asia

2019
Product Sales
Ratio Across
Different Regions

Total 100%

1.4 **Products** and **Services**

With our core in digital storage, Apacer's products can be divided into four main categories: "B2B industrial control products," "B2C consumer products," "gaming products," and "emerging applications."

Industrial Control Products

Industrial or specialized fields such as Solid-State Drives (SSD), memory modules, and storage devices for web communications, national defense, medical, and automotive use.

Consumer Products

Computer peripheral products including memory modules, mobile hard drives, memory cards, USB flash drives, and SSDs for gaming.

Emerging Applications

We provide IOT environmental control system design, integration and implementation, as well as optical inspection services to accompany you on the first mile of IOT innovation.

Gaming products

In response to the individual needs of the gaming market, we offer SSDs and peripheral products for gaming that changes in style according to consumer preferences, as well as patented waterway plate cases.

● Solve clients' troubling issues

With rich experiences in industrial control products and R&D, Apacer solves customers' problems with its integration and technical capabilities. Furthermore, Apacer has built a profound partnership with our customers by providing reliable products and services. Not only are we the No. 1 supplier of industrial SSDs worldwide for five consecutive years, but our revenue ranked eighth among DRAM module manufacturers around the globe according to the DRAMeXchange in 2019. Together with our partners, Apacer continues to deepen its presence in seven vertical application markets, including national defense, healthcare, factory automation, gaming, IoT, transportation, servers, and network communication, to provide a comprehensive solution to our customers.

● Fulfill consumers' needs

With cutting-edge technology enhancing product specifications, Apacer is devoted to fulfilling consumers' needs with years of experience in storage technology.

For decades, we have made advancements in our products, such as laptop memory modules, co-branded USB flash drives, fingerprint USB dongles, memory cards, SSDs, military-grade external storage devices, and mobile peripherals, which allowed us to maintain a reputable brand image among consumers.

Create the Best Experience

Apacer is actively seeking development in the gaming market. In addition to the existing product lines, Apacer has launched its eSports brand, ZADAK, which launched exclusive products for gamers, causing a stir in the 2019 COMPUTEX. Furthermore, we have partnered up with several modders to create striking products that are recognized by the market. Our system components and lighting controls are popular among customers overseas, a testament to our competitiveness in the gaming market.

Smart IoT Partner

In response to the emerging IoT trend, Apacer has established Emerging Applications Division after realizing that many Taiwanese SMEs have IoT deployment needs but lack relevant experience or capabilities. The goal is to integrate hardware, software, and firmware as well as optical inspection to provide the best possible solutions which help customers save time and labor cost when setting up a system. As a result, the threshold for transformation is lowered, smart upgrade is accelerated, and an IoT system can be created. Apacer has achieved remarkable results in health care, smart factory, smart agriculture, and smart transportation.

IoT technology serves as the eyes and ears of administrators: Flame recognition and entrance video footage

Customizing an environment safety monitoring system for long-term care centers located in apartments with elevators

For safety reasons, the nursing station and staff office are located in the center of the Kang Ning Long-Term Care Center. Since the nursing station is a corridor away from the main entrance (the front door) and the escape hatch (the rear door), the entrance is hidden from view. In addition, the nursing station is located in the very center, making it difficult for the staff to see the seniors moving in and out of the entrance. For the administrator, there are hidden risks, such as fire

dangers and safety hazards for seniors. Apacer's smart notification system is highly flexible. For Kang Ning Long-Term Care Center, the prime focus is to enhance monitoring of the Center. After we have studied the site, we proposed a straightforward and simple solution by implementing a pragmatic IoT environment monitoring system.

Site Introduction	Kang Ning Long-Term Care Center - Location: Daan District, Taipei - Characteristics: Located on the second floor. It is a family-style care center that connects two adjacent apartments.
Problems to be solved	The nursing station and the office are in the center, so the staff cannot see the front & rear doors as well as monitor the elders. Thus, the Center is subject to hidden risks or, such as fire dangers and safety hazards for seniors.

Problems to be solved

Nursing station/Office

Main entrance → | Front door ·········· ·········· Rear door | ← Escape hatch
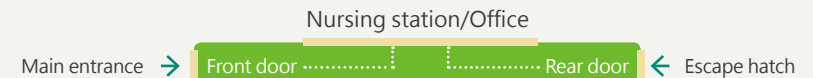
Solution

Smart notification system serves as the eyes and ears of the administrator

Sensing
- Flame detection
- Door and window sensors, real-time image capturing

Warning
- On-site alarm
- Inform administrators by phone and Line message

Fire Detection Sends Timely Warning to Reduce Harm

After discussion and on-site evaluation, Apacer proposed a "smart notification system" that acts as the eyes and ears of administrators. First, a highly sensitive "flame detector" is installed, which can quickly detect weak UV emission from flames. When a lighter is lit or when a flame is formed, the flame detector is instantly activated.

When we lit a flame with a lighter at the Kang Ning Long-Term Care Center's for testing, the administrator and five staff members immediately received a call with an exclusive pre-recorded voice message: "The fire detection of Kang Ning Long-Term Care Center is activated, please conduct on-site checks!" No matter where they are, the staff at the Kang Ning Long-Term Care Center will immediately be informed of any abnormality.

An example of flame detection and smart notification system

Flame detector → On-site alarm
Flame detector → Phone call
Flame detector → Line message
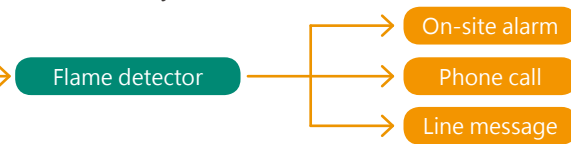
Once a flame is formed, the flame detector is activated and start beeping within one second. Phone call will be made and message will be sent by Line.

Protecting the safety of seniors through "Event Video Feed"

Next, cameras, as well as door and window sensors, are installed to capture the video image when opening and closing the doors. The "event video feed" function allows nurses at the nursing station to monitor who enters or leaves. In order to make the notification information reach the administrator and the management team in a timely manner, Apacer uses the LINE app to contact users. All the information is presented in the management group at a glance. "Beep! Beep!" At two o'clock in the morning, a message was sent to the mobile phone. It turned out that one of the senior residents tried to push the door open.

The caregiver on duty hurried to the door to comfort the resident and guide them to return to bed. This is something that happened after installation of Apacer's notification system. The same senior resident had previously tried the same thing prior to the installation. Without the notification system, a significant amount of time would pass on-site caregiver realized what had happened. By installing the smart notification system, on-site personnel can save more energy for other work without worrying about senior residents entering and leaving the premises alone.

Product Quality Assurance

We believe that quality assurance is our most fundamental promise to our customers. Apacer implements the highest level of safety requirements for the quality of our products. From product R&D, design, usage safety, product lifespan to after-sale services, Apacer adopts rigorous designs and the strictest of inspections.

All of Apacer's products have undergone legal requirements evaluations and are in compliance with EU's RoHS, REACH usage standards in addition to WEEE (EU's Waste Electrical and Electronic Equipment Directive) recycling standards to provide products, and therefore customers are offered low hazard and toxicity products. Also, we have introduced green production procedures, and promised to abide by international protocols, domestic laws related to environmental protection, safety, health and energy to ensure our products fully comply with international standards.

Complete Design Inspection and Verification

- Design verification during the R&D stage
- Design verification during the mass production stage

Quality Policies

Deliver competitive, defect-free and hazardous substance-free products and services on time to satisfy customers

International Quality Certification

In compliance with ISO 9001, ISO14001, and IECQ QC 080000

Product Safety Testing

From the early stages of product development, we conduct a series of basic functional tests, reliability tests, consecutive power on/off tests, power failure tests, environmental reliability tests (operation tests in high/low temperature & humidity environments, drop tests, vibration tests, shock tests, and storage tests), EMC tests, safety tests, compatibility tests, Data Retention Test and RDA tests (Reliability Demonstration Test) to comprehensively examine the quality and usability of all our products..

To ensure the consistency of materials and production standards during mass production, we will undertake an on-going reliability test (ORT Test) to monitor the quality of our mass-produced products over the long-term, as an effective way to ensure the quality of each product we produce and deliver.

Product Labeling

All products sold by Apacer are packaged with clearly marked labels according to the customers' requests, providing complete information on the product itself, including the product manufacturer, content components, instructions, international certifications and content of EU RoHs restricted substances (lead, mercury, cadmium, chromium, PBBs, PBDEs, DBP, BBP, DIBP, and DEHP), realizing transparent disclosure in protecting the rights of our consumers.

Our products are also marked with the WEEE (EU Waste Electrical and Electronic Equipment Directive) symbol. Our goal is to achieve 80% recovery rate and 70% re-use and recycle rate in working toward long-term sustainability.

We also conduct EMC tests based on the rules of different regions. To ensure safe and stable product use, our products are sold in target countries only after passing EMC tests, including Taiwan's BSMI, USA's FCC, European Union's CE, Australia & New Zealand's RCM and Japan's VCCI. The respective logos will be marked on our products.

WEEE
Recycling Label

EMC Label

| Taiwan BSMI | USA FCC | EU CE | Australia & New Zealand RCM | Japan VCCI |
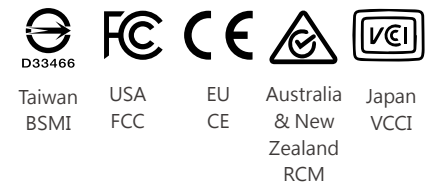
Enhancing Product Traceability

Apacer has introduced the MES (manufacturing execution system) to keep track of the details for each work order, including materials, process information, maintenance information, shipment information, and after-sales services. Through the information recorded by MES, source information of each product can be quickly traced, which helps in locating the source of the defective products.

Additionally, this year we have integrated the MES with ERP systems to gain an understanding of production status in timely manner and strengthen the information integration of various departments.

MES

- Real-time and transparent production information
- Control the production schedule and work-in-process inventory
- Product Traceability

Benefits of MES and ERP integration

- Connect orders with production management to help relevant units grasp production progress in real-time.
- Reduce information input and maintenance time, integrate cross-departmental information, and improve production efficiency and yield rate.

Smart Factory - Re-enhancing Manufacturing Management

Apacer has built a "Smart Factory Production System" through three aspects: Automated facilities, web communication technology, and production systems, in aims to effectively enhance overall production efficiency and cost competitiveness.

We adopted a click-and-mortar approach to enhance the flexibility of our production process and lower the gap between quality and service, as well as improve customer satisfaction. Our superior production equipment, autonomous R&D capabilities, and comprehensive factory management have allowed us to build a green production environment that meets international standards. Not only can we customize optimal production processes for our customers, but we can also control production costs with utmost precision. This allows us to maximize production efficiency and optimize production competency.

Apacer's "Smart Factory" Vision

Smart production development promotion team
Promote the concept of a smart factory to implement smart production.

Monitoring of production environment
Environmental sensing equipment is set up in the production environment. We can use smart technology to monitor the production.

Automation and communication of production equipment
Strengthen communication competency of production equipment. Smart production software system allows for the correction of parameters and prevent errors.
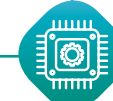
Introduce smart production software system
A detailed record of every process and production information. It is combined with production equipment to provide comprehensive traceability. In addition, relevant information will be analyzed to enhance production measures.

1.5 Innovative R&D

With "focusing on digital storage and becoming the leader in the integration of technology-based information services" as its vision, Apacer focuses on the development of the digital storage industry and is constantly strengthening its product and R&D momentum to establish competitive advantage for sustainable business operations.

In order to continuously enhance Apacer's R&D momentum, we provide rich training programs and lectures as well as set up internal reward guidelines to encourage creative thinking in the workplace. In addition, we put a lot of effort in to promoting diverse thinking and multiplying the benefits of cooperation with strategic partners.

R&D accumulates a sustainable momentum

Possessing independent R&D and customization capabilities for software, hardware, and firmware, Apacer's professional industrial design team integrates human-machine R&D technology to provide customers with business-driving products and services.

R&D and customization capabilities

Accelerate product development, increase flexibility in product design, add value to products, and customize product specifications for customers.

A professional design team

With transboundary thinking and rich experience in materials, technology and craftsmanship, we design products that are both attractive and practical.

Innovative thinking

Develop innovative products and services based on digital storage and technology trends.

With a strong emphasis on the future investment, Apacer places great importance on R&D investment. This is why Apacer compiles and reviews budget based on R&D needs. Although the R&D expenditure in 2019 decreased by 2.1% compared to the previous year as shown in the table below, R&D ratio has reached a peak in recent years.

R&D Ratio Over the Years (Unit: NT$ 1,000)

Year	2016	2017	2018	2019
R&D Expenses	87,530	99,120	120,479	117,884
Operating Revenue	6,822,226	10,043,476	9,441,618	7,485,821
R&D Ratio	1.28%	0.99%	1.28%	1.57%

R&D Expenditure Over the Years (Unit: NT$ 1,000)

Year	Value
2019	117,884
2018	120,479
2017	99,120
2016	87,530
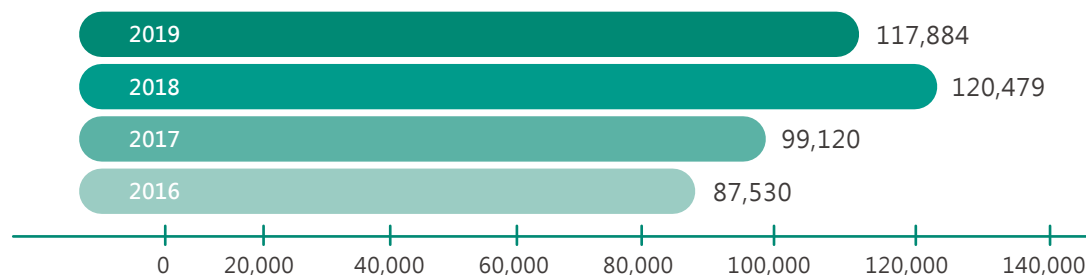
● Patent Deployment

To strengthen innovation and R&D momentum, Apacer formally established a Patent Development Committee in 2017. The committee is chaired by the President, and a Patent Review Team has been set up to undertake an internal patent review for future development. Relevant incentive measures have also been clearly defined to promote patent commercialization.

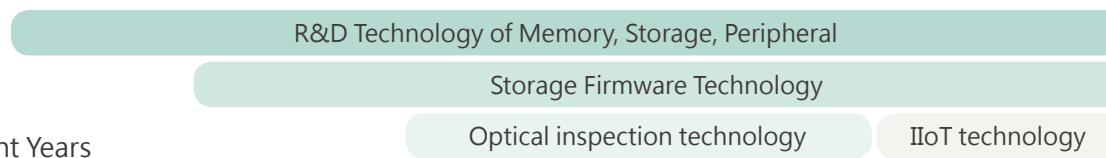**Apacer's Patent Development Committee**

Chairman

Legal Office	R&D Division	One representative from each BU	Innovative Experience Design Center
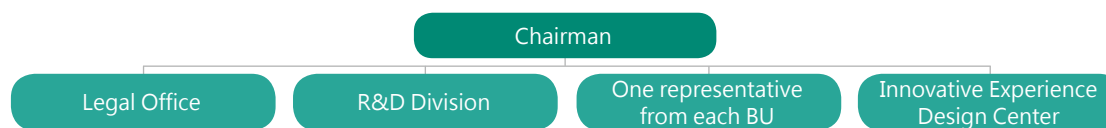
Key R&D Direction in Recent Years

R&D Technology of Memory, Storage, Peripheral

Storage Firmware Technology

Optical inspection technology | IIoT technology

● R&D Achievements

In 2019, a total of 37 patents were granted. As of today, Apacer has applied for 239 patents (both in-process and granted), with new patents accounting for 15%. This is a clear indication that the Company constantly pools resources into generating innovative momentum, thereby accessing new business opportunities. At present, most patents are related to embedded technology, followed by innovative applications and mobile peripherals. The key commercialized patents are as follows:

Anti-vulcanization memory storage device

In response to customers' special requirements in terms of application environment, Apacer has developed an anti-vulcanization memory storage device and obtained patents in the United States and China. Compared with other competitors without the patent, Apacer can create product differentiation and build a competitive advantage over other brands.

SSD heat dissipation device

Apacer has developed a heat dissipation device that can maintain a stable temperature and reduce product loss based on different usage situations. Apacer has obtained patents for this device in both Taiwan and China.

● Relevant Public Associations

To better monitor market trends and expand new business opportunities, we participate in relevant public associations, as illustrated in the table below.

Associations	Form of participation
Taiwan Stock Affairs Association	Members periodically attend meetings and seminars
Responsible Business Alliance	Member
GS1 Taiwan	Member
SATA-IO (The Serial ATA International Organization)	Member
JEDEC (Global Standard for Microelectronics Industry)	Member
SDA (SD Association)	Member
CFA (CompactFlash Association)	Member
PCI-SIG (Peripheral Component Interconnect Special Interest Group)	Member
DRAM EXCHANGE	Member
INSPECTRUM	Member
Taipei Computer Association	Member
Taiwan External Trade Development Council - Taiwantrade	Member

Chapter 2

A Good Partner for Green Environment

Vision

In order to fulfill CSR and protect the environment, Apacer has introduced environmental systems, established supplier management regulation, promoted green product design, and carried out environmental education. We have internalized environmental protection concepts to the Company's entire value chain. Through top-down "policies" and the bottom-up "actions," we practice green sustainability within our business operations.

Policy and Commitment

In compliance with "legal compliance, pollution prevention, participation in consultation, risk control, green design, continuous improvement and environmentally friendly" EHS (environment, health, and safety) and energy policies established by Apacer, we deliver competitive, defect-free and hazardous substance-free products and services on time to satisfy the needs of our customers.

Contribution to the United Nations Sustainable Development Goals (SDGs)

6 Clean water and sanitation

12 Responsible consumption and production

13 Climate action

Issues of the Chapter

Material Topics : Green products and services	Corresponding Material Topic GRI 302: Energy

How to Manage

Responsibility
- R&D and Technology Center supervisors
- Global Sourcing Division supervisors

Resources
- Budget: Invest NT$ 90,000/year in updating management system certification

Channels of Communication
- Apacer's official website
- ISO 14001 Environmental Management System
- Report project planning, review achieved performance and conduct horizontal cooperation between departments in quarterly CSR Committee meetings
- Release cards on EHS and energy policies to all employees

Action

- Continuous update of the management system
- Sustainable supplier management
- Green product design
- Improve energy-saving processes
- Promote education and training on environmental protection

Sustainable Goal

Short-term goal (2020)
- Improve production efficiency to reduce energy consumption
- Replace air-conditioning equipment on the first to sixth floors to improve energy efficiency
- Update the ISO 14001/ISO 45001 management system or renew licenses

Mid-term goal (2021~2023)
- 100% in line with green product design, strengthen power-saving mode design of products

Long-term goal (After 2024)
- Improve the automation of special operations
- Reduce environmental pollution in production operations

Evaluation Method

- Energy efficiency of factory/office
- ISO 14001 Environmental Management System
- ISO 45001 Occupational Safety and Health Management System

- The percentage of green product designs

- Environmental pollution assessment of production

Achievements and results in 2019

Exceeding goals :
- Improve the workflow and reduce the consumption of packaging materials (please see 2.2 Energy and Resource Management).

Achieved goals :
- Air-conditioning equipment on the seventh floor of the factory/office is replaced to improve energy efficiency
- Improve production efficiency to reduce energy consumption

Contribution to the United Nations Sustainable Development Goals (SDGs)

SDGs 6 Clean Water and Sanitation
SDGs 12 Responsible Consumption and Production
SDGs 13 Climate Action

Material Issue : Hazardous Substance Management	Corresponding Material Topic GRI 308 Supplier environmental assessment

How to Manage

Responsibility
- R&D Division
- Global Sourcing Division
- Customer Service Division

Resources
- Budget: Invest NT$ 220,000/year in updating management system certification and holding supplier conference
- Manpower: R&D Division, Global Sourcing Division, and Customer Service Division

Channels of Communication
- Apacer's official website
- Manage review meetings
- Internal audit process of the Company
- QC 080000: 2017 Hazardous Substance Process Management System
- Release cards on EHS and energy policies to all employees

Action

- Introduce QC 080000: 2017 Hazardous Substance Process Management System
- Implement Hazardous Substance-Free (HSF) requirements

Sustainable Goal

Short-term goal (2020)
- Receive QC 080000: 2017 Hazardous Substance Process Management System Certification
- Complete the latest 2019 RoHS 2.0 requirements

Mid-term goal (2021~2023)
- Annual supplier conference

Long-term goal (After 2024)
- Smart green management

Evaluation Method

- Receive QC 080000: 2017 Hazardous Substance Process Management System Certification
- Complete the latest 2019 RoHS 2.0 requirements

- Satisfaction survey of supplier conference

- Improve the automation of special operations and reduce environmental pollution in production operations

Achievements and results in 2019

Exceeding goals :
- Received QC 080000: 2017 Hazardous Substance Process Management System Certification
- Completed the implementation of the latest 2019 RoHS 2.0 requirements ahead of schedule

Contribution to the United Nations Sustainable Development Goals (SDGs)

SDGs 12 Responsible Consumption and Production
SDGs 13 Climate Action

2.1 Commitment to the Environment and Legal Compliance

Apacer abides by the EHS and energy policies of "legal compliance, energy-saving, and waste reduction, consulting and communication, risk control, green design, and continuous improvement," using no substances that may harm the environment, and making good use of existing resources. By means of energy saving, carbon reduction, and resource reuse, Apacer reduces energy and resource consumption and is committed to "becoming a renowned green enterprise."

Apacer's Environmental Commitment

Legal Aspect

Check the status of regulatory updates quarterly and comply with domestic environmental protection and energy management regulations. No penalties for environmental violations were given in 2019
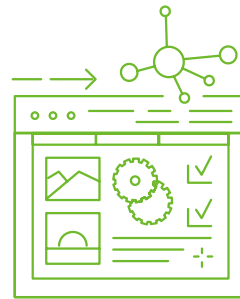
Institutional Aspect

- Introduce ISO 14001:2015 Environmental Management System to systematically manage the manufacturing process and negative environmental impact of products
- Procurement and manufacturing processes comply with international environmental standards for electronic products and Hazardous Substance-Free (HSF) standards. Furthermore, Introduce QC 080000 Hazardous Substance Process Management System.
- Advocate and implement 2019 RoHS 2.0 requirements one year ahead of schedule.
- No conflict minerals are used.
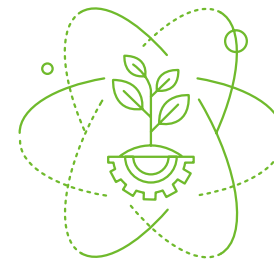
R&D

Develop green products and reduce the amount of resources used starting from the product design stage
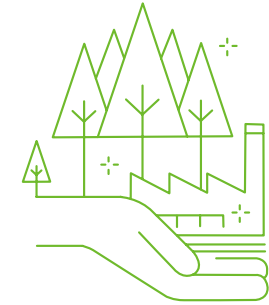
Actions

- Introduce water-cooled air conditioners on the seventh floor of the operational headquarters, saving more than 30% of electricity compared to floor of the same size (sixth floor)
- Plan to replace air-conditioning equipment on the first to sixth floors to improve energy efficiency
- Establish short-, mid- and long-term environmental sustainability goals, and continuously enhance its green and sustainable actions

Introduction of the Environmental Management System

To become a green enterprise, Apacer has gradually introduced ISO 9001 quality management and environmental management systems. The Company follows the PDCA (Plan-Do-Check-Act Cycle) management cycle to ensure that all phases of operation and production comply with policies and achieve its objectives. Systematic management methods ensure product quality and environmental assurance to reduce the negative impact on the environment caused by-products and production processes.

Apacer's P-D-C-A on Environmental Management System

Plan	Do	Check	Action
Environmental impact investigation and action plan	**Actual operation**	**Performance review**	**Continue to improve and manage**
Investigate the environmental impact of the factory comprehensively, analyze the environmental impact of the workflow, and formulate an environmental protection action plan.	According to the action plan, each department implements environmental protection actions, including reducing plant waste and packaging materials, as well as promoting office environmental protection measures.	Monitor and measure the effectiveness of various implementations to achieve environmental protection goals.	Based on the gap between effectiveness and goals, make improvements, enhance various actions, and set goals for the next stage.

Apacer has introduced the ISO 14001:2015 Environmental Management Systems in 2017. The Company established risk-oriented thinking and a life cycle perspective in terms of environmental management to ensure that environmental requirements have been incorporated into each stage of a product's life cycle, including product design and production. In 2019, Apacer also completed the ISO 14001:2015 surveillance audit to support the implementation of management systems.

Apacer starts with source management by introducing QC 080000 Hazardous Substance Process Management System. The raw materials meet the EU RoHS and hazardous environmental substance and chemical substance prohibition and restriction standards from REACH. The raw material suppliers must sign the Declaration on Environmental Protection, provide raw material test reports, and complete the material surveys in order to be deemed qualified. We put in effort to ensure that the environment and consumers are not exposed to hazardous substances.

No Conflict Minerals Are Used

Since 2013, Apacer has undertaken 3TG mineral investigation for Tier 1 suppliers by using the Conflict Minerals Reporting Template (CMRT) developed by Conflict-Free Sourcing Initiative (CFSI). All suppliers are required to fill out a Conflict Mineral Investigation Form during basic information registration. In 2019, a total of 238 suppliers were investigated. The results show that metallic minerals used in Apacer's products were sourced from Europe, Asia, and America, and none were sourced from regions and neighboring countries controlled by non-governmental or military groups in the Democratic Republic of the Congo (DRC).

Note: Conflict minerals refers to minerals extracted under conditions of armed conflicts and human rights violations, especially tin, gold, tantalum, and tungsten (collectively known as the "3TG" minerals) that are mined in the DRC and its neighboring countries. The minerals extracted in these areas are collected through the extortion of civilians, who are forced to work in an inhumane manner and harsh working conditions. The profits from mining are used for war and resource plundering. The ongoing civil war has increased the poverty level of residents and the deterioration of public security

Material Issues 2.2

Energy and Resource Management

Apacer has received the ISO 14001 Environmental Management System Certification. Besides, Apacer has established pollution prevention and improvement mechanisms and conserved energy consumption to lower the environmental impacts of our business operations. The internal energy resources consumption is mainly based on the power and domestic water of the Company's operating headquarters. The manufacturing process of the products does not require water, so no production-related wastewater is produced.

Apacer's water is provided by Taiwan Water Corporation, and the source of water is from the Shimen Reservoir. Domestic wastewater is collected through wastewater pipelines and sent to the wastewater disposal company. Apacer's water consumption and wastewater discharge do not have significant environmental impact. In terms of energy consumption, purchased electricity (indirect energy) accounts for over 99% of the Company's total energy consumption. In 2019, due to the increase in factory/office areas, the energy intensity decreased slightly.

● Energy Management

Energy Consumption over the Years

Types of Energy	Direct energy		Indirect energy	
Purpose of Energy Consumption	Diesel-fueled forklift truck		Factory/office power consumption	
Year	Volume of energy consumption		Volume of energy consumption	
2017	40 liters	1,404.48 million joules	3,531,621 kWh	12,713,835.6 million joules
2018	20 liters	702.24 million joules	3,700,777 kWh	13,322,797.2 million joules
2019	20 liters	702.24 million joules	3,987,706 kWh	14,355,741.6 million joules

Note 1: 1 liter of diesel = 8,400 kcal; 1 cal = 4.18 joules (in reference to the Product Unit Calorific Value Table from the Energy Bureau)
Note 2: 1 kWh of power = 3.6 million joules

Energy Intensity (joules/square meter)

	2017	2018	2019
	1.62	1.70	1.37
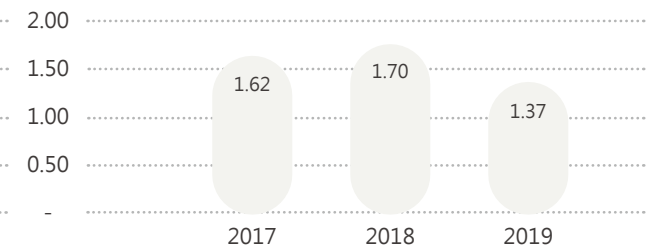
Note: Energy intensity= total energy consumption volume (joules)/floor area (square meter)

● Greenhouse Gases Management

In order to fully grasp the impact of the operation on the environment, Apacer has implemented self-initiated greenhouse gas verification since 2013 and set 2012 as the benchmark year to track the Company's emissions of greenhouse gases. We aim to reduce emissions of greenhouse gases.

In February 2020, Apacer completed the Scope 1 and Scope 2 greenhouse gas verification for 2019. Apacer's operating headquarters in Tucheng District, New Taipei City, was used as the boundary, and the sources of emissions included facilities within and outside the factory buildings, as well as purchased electricity. In 2019, due to the increase in factory/office area, the greenhouse gas emission intensity had decreased slightly.

Volume of Greenhouse Gas (GHG) Emissions

Scope	2017	2018	2019
Scope 1 (metric tons of CO2e)	8.51	8.75	9.11
Scope 2 (metric tons of CO2e)	1,868.23	2,055.21	2,125.45
Total volume of emissions (metric tons of CO2e)	1,876.74	2,063.96	2,134.55

Note 1: GWP refers to IPCC 2007
Note 2: The source of carbon emission coefficient refers to the latest power emission coefficient announced by Energy Bureau during the time of the inventory (carbon emission coefficient is 0.533 kg)
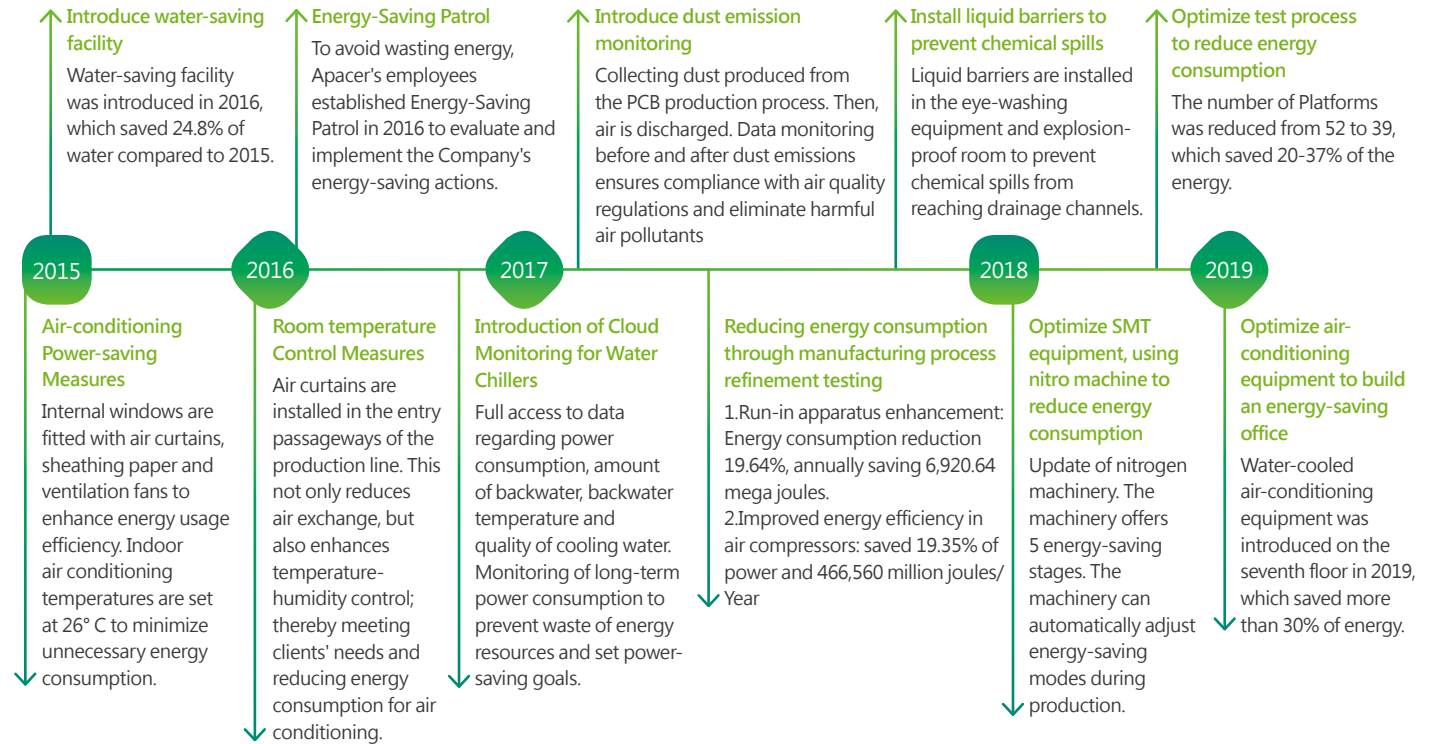Note 3: Boundary investigation: Operational Control Method

Greenhouse Gas Emission Intensity (metric tons of CO2e/square meters)

Year	Intensity
2017	0.24
2018	0.26
2019	0.20
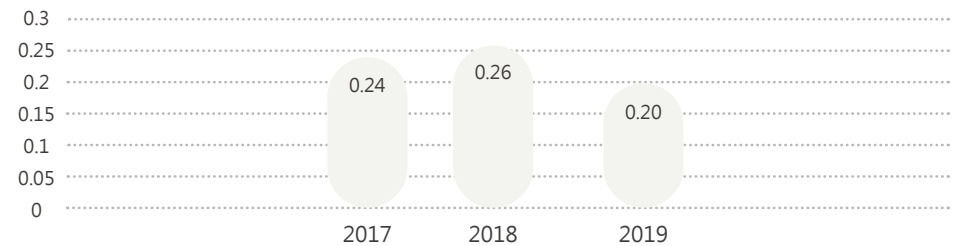
Note: Greenhouse gas emission intensity = Total emissions (metric tons of CO2e)/ Floor area (square meters)

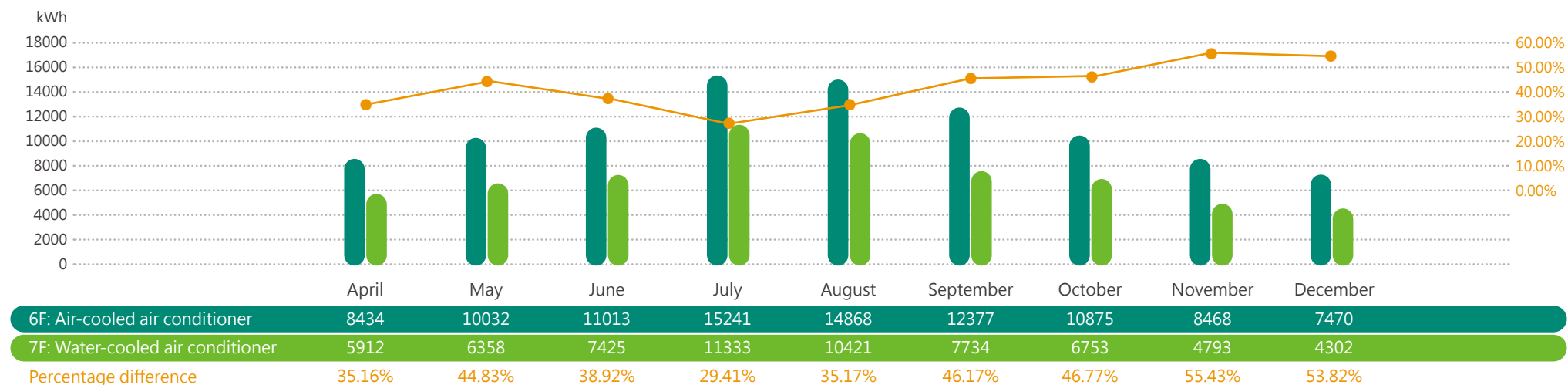## Benefits from Energy-Saving Improvements in 2019

Due to human activities, global warming has caused abnormal climates around the world, posing huge threats to ecosystems, water and soil resources, human life, and properties. In order to protect the environment and reduce emissions of greenhouse gases and resource consumption, Apacer invested NT$ 2.5 million in 2019 in alignment with the environmental protection trend to replace air-cooled air conditioners on the seventh floor of the factory with water-cooled air conditioners. Apacer will evaluate the energy-saving effect within one year.

2015

Air-conditioning Power-saving Measures

Internal windows are fitted with air curtains, sheathing paper and ventilation fans to enhance energy usage efficiency. Indoor air conditioning temperatures are set at 26° C to minimize unnecessary energy consumption.

2016 — Introduce water-saving facility

Water-saving facility was introduced in 2016, which saved 24.8% of water compared to 2015.

Room temperature Control Measures

Air curtains are installed in the entry passageways of the production line. This not only reduces air exchange, but also enhances temperature-humidity control; thereby meeting clients' needs and reducing energy consumption for air conditioning.

2016 — Energy-Saving Patrol

To avoid wasting energy, Apacer's employees established Energy-Saving Patrol in 2016 to evaluate and implement the Company's energy-saving actions.

2017 — Introduce dust emission monitoring

Collecting dust produced from the PCB production process. Then, air is discharged. Data monitoring before and after dust emissions ensures compliance with air quality regulations and eliminate harmful air pollutants

2017 — Introduction of Cloud Monitoring for Water Chillers

Full access to data regarding power consumption, amount of backwater, backwater temperature and quality of cooling water. Monitoring of long-term power consumption to prevent waste of energy resources and set power-saving goals.

Reducing energy consumption through manufacturing process refinement testing

1.Run-in apparatus enhancement: Energy consumption reduction 19.64%, annually saving 6,920.64 mega joules.
2.Improved energy efficiency in air compressors: saved 19.35% of power and 466,560 million joules/ Year

2018 — Install liquid barriers to prevent chemical spills

Liquid barriers are installed in the eye-washing equipment and explosion-proof room to prevent chemical spills from reaching drainage channels.

2018 — Optimize SMT equipment, using nitro machine to reduce energy consumption

Update of nitrogen machinery. The machinery offers 5 energy-saving stages. The machinery can automatically adjust energy-saving modes during production.

2019 — Optimize test process to reduce energy consumption

The number of Platforms was reduced from 52 to 39, which saved 20-37% of the energy.

2019 — Optimize air-conditioning equipment to build an energy-saving office

Water-cooled air-conditioning equipment was introduced on the seventh floor in 2019, which saved more than 30% of energy.

The size, layout, and usage of the seventh and sixth floors of Apacer's factory are the same. The only difference is that water-cooled air conditioners were installed on the seventh floor, while air-cooled air conditioners were used on the sixth floor. We kept records on the power consumption from April to December 2019. After calculation, water-cooled air conditioners save more than 30% of energy than air-cooled air conditioners. Having achieved remarkable power-saving results, Apacer will continue to replace air-conditioning equipment on the first to sixth floors in the future. In addition to fulfilling environmental protection claims, Apacer can save resources when it comes to electricity costs.

Comparison of power-saving between air-cooled and water-cooled air-conditioners (independent electricity meter) April-December, 2019

|	April	May	June	July	August	September	October	November	December
6F: Air-cooled air conditioner	8434	10032	11013	15241	14868	12377	10875	8468	7470
7F: Water-cooled air conditioner	5912	6358	7425	11333	10421	7734	6753	4793	4302
Percentage difference	35.16%	44.83%	38.92%	29.41%	35.17%	46.17%	46.77%	55.43%	53.82%

● Waste Management

To effectively dispose of waste materials and prevent them from polluting the environment, Apacer puts great effort into reducing production waste by properly sorting, recycling, and outsourcing the disposal of waste materials. Common commercial waste and hazardous commercial waste are both processed by external qualified vendors. On-site audit will be undertaken by the responsible department as needed to ensure the appropriateness and the compliance of the waste processing. As for waste effluent produced by the manufacturing process, we installed a liquid barrier in the eye-washing equipment and explosion-proof room to prevent chemical spills from reaching drainage channels, helping the Company fulfill its corporate responsibility in waste management.

Total quantity of waste and management methods in 2019

Types of waste		Processing measures	Volume processed (metric tons)	Ratio
Common commercial waste	Domestic garbage	Incinerate	21.8	45.4%
	Recycle	Recycle and reuse	16.5	34.4%
Hazardous commercial waste		Reclamation or reuse	5.9	12.2%
		Organic waste liquid	3.9	8.0%

Reduction of packaging materials

In order to fulfill energy conservation and carbon reduction in routine operations, Apacer has re-examined several production processes to find out where resources may be idle or wasted. In 2019, we adjusted the standard operating procedures for warehousing products. When putting a batch of products into boxes, the remainders will be shipped into the warehouse without packing. Once there are enough products for one box, they will be packed to avoid wasting packaging materials. After implementing packaging material reduction measures, it is estimated that 300 packaging materials are saved every month.

Unit: NT $

Once a box is full, it will be packed and stored; Boxes that are not full will not be stored
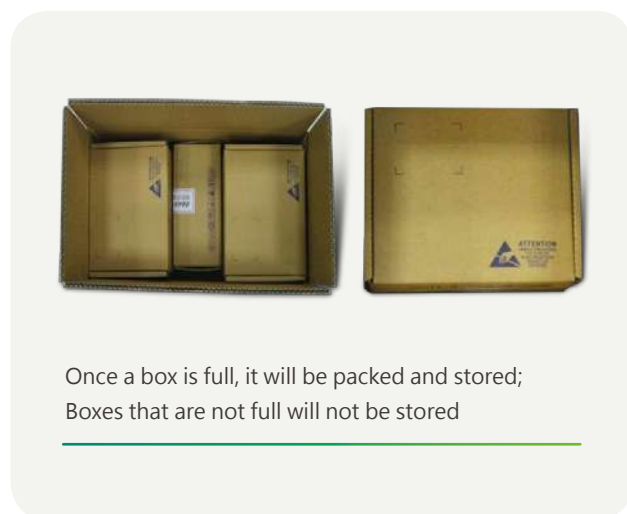
By simply changing the SOP, wastage of resources can be reduced, achieving energy conservation and carbon emission reduction goals. In the future, Apacer will take a positive attitude to look for more energy-saving and carbon-reducing methods to protect the earth and the environment.

Office Environmental Protection Measures

Apacer is devoted to integrating energy conservation and environmental protection into our day-to-day operations, reducing environmental impact and cultivating employees' environmentally friendly behavior.

Since no water is used in our production process, Apacer's water consumption is mainly domestic water. The Company has replaced all faucets with water-saving faucets to avoid wasting water. Water-saving posters are posted, and designated personnel are responsible for inspecting the water facilities so as to undertake timely maintenance. In 2019, due to the expansion of the factory and replacement of water-cooled air-conditioning equipment on the seventh floor, the total water consumption has increased.
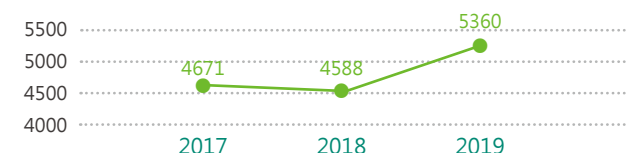
Moreover, the Company uses electronic forms for all operational processes to reduce paper use. The air-conditioning units are regularly maintained, and the internal windows have been installed with blinds, thermal papers, and circulation fans to improve energy efficiency. Some public areas are naturally ventilated and air conditioners should be set at 26 ℃ . During non-working hours, the air-conditioning systems in the office areas will automatically be turned off to avoid wasting energy.

Water Consumption Volume Over the Years

Year	2017	2018	2019
Total water consumption (metric tons)	4,671	4,588	5,360

Total water consumption (metric tons)

5500
5000
4500
4000

4671   4588   5360

2017   2018   2019

Achieve happier and healthier lives by taking the stairs.

Don't waste even just a little, and try to conserve as much as you can.

Apacer

Apacer

2019 Environmental Protection Expenditure

Unit: NT $

Expenditure Items	NT $
Verification fee of environmental management systems	85,187
RBA coaching and verification fees	87,150
Equipment improvement	2,500,000
Common commercial waste	225,500
Hazardous commercial waste process	251,100
Working environment measurement	26,000
Environmental sanitation inside and outside the office area	1,717,860
Environmental greenification	31,317
Total	4,924,114

Material Issues 2.3

Create Green Value

In response to the global calls for environmental protection and in order to practice the brand's core value of "Becoming Better Partners," Apacer is constantly thinking about how to make a positive impact on the global environment starting with the core of its business operations. We have extended the concept of environmental sustainability to the whole of our value chain. Through the introduction of environmental management systems, supply chain management, green product design, and environmental education, Apacer implements green production concepts and products in order to comply with the latest international environmental regulations and ensure the competitiveness of Apacer's green products.

Environmental Protection Education

All new employees have passed a general knowledge course on environmental protection and energy-saving, including policies and indicators regarding ISO 14001 Environmental Management System, and ISO 14064 GHG Management System.

In 2019, a total of 97 persons completed HSPM training, with 194 hours accumulated in total.

Green Purchasing

In 2019, all of our raw material suppliers sign the Declaration on Environmental Protection.

In 2019, all of our suppliers provide RoHS testing report and fill out a REACH Candidate List of Substances of Very High Concern (SVHC).

We hold supplier conference annually to communicate the latest international environmental regulations.

Green Production

Introduce ISO 14001 Environmental Management System to reduce waste and lower pollution & energy use.

Introduce QC 080000 Hazardous Substance Process Management System to reduce the usage of substances that are hazardous for the environment and human health.

Green Products

All products comply with EU RoHS standards.

All products are lead-free.

Our products comply with WEEE regulations. All products achieve 80% recovery rate, and 70% re-use & recycle rate.

Chapter 3

Making Progress Alongside A Good Partner

Vision

Over the years, Apacer insists on providing high-quality products and services, achieving alignment with international environmental regulations, and creating a trustworthy international green brand. Hoping to play an important role in driving supply chain growth, Apacer has established several management policies related to our suppliers and customers in order to achieve cooperation progress and joint growth. Apacer upholds the brand core value, "Delivering on Our Promise, Constant Improvement, and Mutually Beneficial."

Policy and Commitment

Upholding the quality policy, we "deliver competitive, defect-free, and hazardous substance-free products and services on time to satisfy customers."Apacer is committed to fulfilling social responsibilities and providing reliable green products to customers.

Contribution to the United Nations Sustainable Development Goals (SDGs)

12 Responsible consumption and production

17 Partnerships for The Goals

Issues of the Chapter

Material Topics : Sustainable supplier management

Corresponding Material Topic
GRI 308 Supplier environmental assessment
GRI 414 Supplier social assessment

How to Manage

Responsibility	- Customer Service Division - Global Sourcing Division
Resources	- Manpower: 30 staff in Customer Service Division and Global Sourcing Division - Budget: NT$290,000
Channels of Communication	- Apacer Green Product Web System (AGP) for suppliers - Annual supplier conference

Action

- Suppliers are required to sign the Declaration on Environmental Protection
- Suppliers provide the raw material test reports and complete the material surveys to ensure that raw materials conform to HSF regulations.
- Implement Supplier RBA policy
- Convene annual supplier conference

Sustainable Goal

Short-term goal (2020)	- In compliance with RBA VAP regulations for supply chain assessment/audit/management - Convene supplier conference annually to promote important issues of the year - Renewal of ISO 9001 and QC 080000
Mid-term goal (2021~2023)	- RBA VAP regulations for supply chain assessment/audit/management shall score above 75 - Convene annual supplier conference to promote important issues of the given year
Long-term goal (After 2024)	- Develop smart green management Internal: Apacer develops green product design and manufacturing processes External: Update green products and environmental regulations through the AGP system to communicate with relevant supplier partners.

Evaluation Method

- Results of annual supplier assessment
- Effectiveness of supplier conference implementation
- Check weather all suppliers have filled in the Declaration on Environmental Protection and provided raw material test reports through the AGP system

- Effectiveness of supplier conference implementation
- Results of annual supplier assessment

- Internal: Increase the proportion of material/finished product in HSF and reduce using hazardous substances.
- External: Check weather all suppliers comply with Apacer's green product and environmental law requirements through the AGP system.

Achievements and results in 2019

Achieved goals :	- Include implementation of the RBA policy in supplier evaluation - Held a supplier conference - Renew ISO 9001 and re-certificate QC 080000

Contribution to the United Nations Sustainable Development Goals (SDGs)

SDGs 12 Responsible Consumption and Production
SDGs 17 Partnerships for the goals

Material Issue : Customer Relationship Management

Corresponding Material Topic
GRI 416 Customer Health and Safety

How to Manage

Responsibility	- Customer Service Division - Sales and Marketing Department
Resources	- Manpower: 52 staff in the Customer Service Division and Sales and Marketing Department - Budget: NT$ 3,360,000
Channels of Communication	- CRM (Customer Relationship Management) system - After-sales system : eRMA - Annual customer satisfaction survey - Customer Service Line

Action

- Establish global after-sales service system
- Optimize product customization services
- Conduct an annual customer satisfaction survey

Sustainable Goal

Short-term goal (2020)	- Upgrade customer service workflow system - Score 85 in terms of customer satisfaction
Mid-term goal (2021~2023)	- Raise customer satisfaction by 5
Long-term goal (After 2024)	- Promote smart green management

Evaluation Method

Conduct customer satisfaction survey annually by customers CRM systems

Achievements and results in 2019

Achieved goals :	- Integrate reverse logistics management into the Company's ERP (enterprise resource planning) and MES (manufacturing execution system) to enhance after-sales service. - Score over 85 in terms of customer satisfaction

Contribution to the United Nations Sustainable Development Goals (SDGs)

SDGs 12 Responsible Consumption and Production
SDGs 17 Partnerships for the Goals

Sustainable Supplier Management

Material Issues 3.1

Continue to Implement RBA Guidelines

Apacer's global operations are in compliance with RBA's five behavior-oriented practices, showing our determination in fulfilling our CSR.

In 2018, Apacer received a Silver Certification from VAP (Validated Audit Process). Apacer has carried out external audits and continued to make improvements in 2019. In striving for RBA excellence and realization, Apacer has made improvements in five items in three aspects, including health and safety, business ethics, and management system factors.

Our operations are based on ethics and transparency, creating a good working environment for our employees. Moreover, we establish reliable partnerships with suppliers by implementing "supplier management regulations" and environmental policies, thus reducing the environmental impact of our operations. Moreover, all of Apacer's employees have completed RBA education and training courses, which help in implementing RBA Code of Conduct in our day-to-day operations.

Responsible Business Alliance (RBA) Code of Conduct
- Labor
- Safety and Health
- Environmental Protection
- Business Ethics
- Management System Factors

Supplier Policy

Since Apacer values purchasing from local supplies, the number of local supplier accounts for 80.7% of all our suppliers. Also, Apacer spends 55% of its purchasing budget on local suppliers. We hope to retain the economic benefits of our business operations in Taiwan and to reduce carbon emissions caused by the transportation of raw materials.

In addition, Apacer conducts risk assessments based on suppliers' overall quality (ISO 9001), delivery timeliness, price, green product capability (QC 080000), and implementation of RBA policy. Apacer has purchased raw materials with suppliers from different regions and regularly conducts supplier assessments. Thanks to these policies, we can ensure the consistent quality of Apacer's products and satisfy customers' needs as well as meet the requirements of HSF standards.

Supplier Policy

Region	Types of Suppliers	Number of Suppliers	Ratio by Type	Purchasing Budget Ratio
Taiwan	Licensed Agent	56	80.7%	55%
	Subcontractor	15		
	Outsourcing Vendor	6		
	Trading Company	21		
	Manufacturer	113		
	Waste Treatment Contractor	3		
	Subcontractor (general affairs)*	7		
Non-Taiwan Region	Licensed Agent	8	19.3%	45%
	Subcontractor	1		
	Outsourcing Vendor	7		
	Trading Company	20		
	Manufacturer	17		
Total		274	100%	100%

Note*: Security, cleaning, catering, brokerage, freight forwarders are included.

Supplier Management Procedures

Searching for suppliers → Registration of basic information → Documentation review → (Yes) Supplier assessment → Periodic supplier evaluation → Tiered supplier management

(No) returns to Searching for suppliers

Searching for suppliers:
Find suitable suppliers based on quality, delivery timeliness, and price.

Registration of basic information Provide the following documents and fill out the basic information:
- "Apacer's Declaration on Environmental Protection."
- "Conflict Mineral Investigation Form": An investigation into the source(s) for tin, gold, tantalum, and tungsten.
Aside from aforementioned documents, subcontractors and manufacturers of electronics/packaging/mechanism/PCB shall provide an additional document:
- RBA Letter of Declaration

Undertake a documentation review and supplier assessment to qualify suppliers that:
- Passed the supplier assessment and audit approval
- Provided RoHS testing reports and filled out a REACH Candidate List of Substances of Very High Concern (SVHC)
Aside from aforementioned documents, subcontractors and manufacturers shall provide an additional document:
- ISO 14001 Certification or other relevant certifications

Form research teams to evaluate facilities and competencies on-site as needed.

Timing of supplier evaluation:
- Subcontractor: quarterly   - Outsourcing supplier & manufacturer: every six months
- Licensed agent and trading company: annually
On-site audit is conducted based on the type and risk levels of suppliers.

According to the evaluation results, the suppliers are divided into four levels:
A, B, C, and D. Based on the grade, supplier quality improvement measures are carried out, and subsequent procurement operations are evaluated.

Note: This management process does not include waste treatment contractors and general affairs outsourcing vendors

Sustainable Regulation for Supplier Assessment

Introduction Phase

- Supplier and Hazardous Substance Management

Apacer has introduced the QC 080000 Hazardous Substance Process Management System. We ensure that the quality, stability, and non-hazardous substance (HSF) management of our products meet international standards as well as our customers' needs through our supplier management processes. Raw materials provided by suppliers need to comply with the EU RoHS, in addition to REACH hazardous environmental substance and chemical substance prohibition and restriction standards.

At the same time, suppliers are also required to sign the Declaration on Environmental Protection, provide a raw material test report, and complete material surveys to be deemed qualified. By implementing Supplier Management Procedures and Supplier Environmental Standards, Apacer is able to achieve "deliver competitive, defect-free and hazardous substance-free products and services on time to satisfy customers" goals while also meeting HSF policies.

- Supplier RBA Regulations

Apacer spares no effort in fulfilling its CSR. We implement strict regulations in hopes to play a role in driving growth and progress for the industry chain. Since 2017, Apacer has implemented the RBA regulations on to its Tier 1 suppliers. Labor-intensive suppliers such as raw material manufacturers, outsourcing vendors, intermediaries, and waste management companies should provide a Letter of

Declaration for RBA and work with suppliers to value labor safety, environmental protection, in addition to ethical and transparent management.

According to Apacer's supplier management regulations, the number of suppliers who are required to provide a Letter of Declaration for RBA is 145. Among them, 72% of the suppliers have done so. Compared to the previous year, the number of suppliers increased by 24 in 2019, indicating the increasing awareness of RBA regulations among suppliers. Apacer will continue to promote and audit the RBA policy to make sure that in the future, all new suppliers provide a Letter of Declaration.

- Supplier Introduction Assessment

Apacer's suppliers are subject to constant review. In addition to assessing the suppliers' quality, manufacturing, delivery timeliness, and other capabilities, we also include environmental and social standards in our list of assessment items. Through the Supplier Assessment, the supply chain partners are encouraged to value and implement sustainable operations. At the same time, we undertake on-site audits based on the type and risk levels of suppliers. We convene relevant departments such as management, engineering, and quality assurance departments to set up an on-site investigation team to evaluate suppliers' equipment and capabilities.

Number of Suppliers Providing Letter of Declaration for RBA

- 2017: 7
- 2018: 80
- 2019: 104

Percentage of Suppliers Providing Letter of Declaration for RBA in 2019

● Provided ● Not Provided

- 72% Provided
- 28% Not Provided
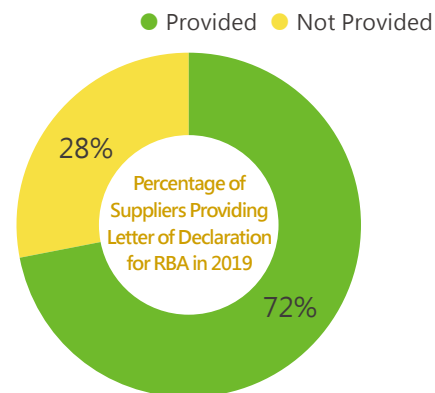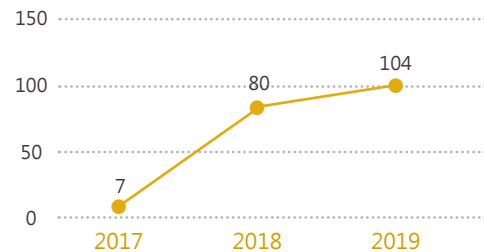
Items for Apacer's Supplier Introduction Assessment

Economic	Environmental	Social
Business Management	Hazardous Substance-Free (HSF), Environment, Health, and Safety (EHS)	Social responsibility : - Whether they hire children and minors?
Quality Management		- Is there an employee grievance channel?
Manufacturing Capacity		- Equality in employee rights
Equipment Management		- Do the employees work overtime?
Delivery Timeliness		- Is any labor forced to work?
		- RBA implementation

Regular Evaluation Phase

All raw material suppliers are subject to annual evaluation. The evaluation was held quarterly, semi-annually, or annually according to the category of suppliers. For suppliers with serious quality issues or high risks, Apacer must conduct an on-site audit every year.

In terms of evaluation methods, Apacer evaluates suppliers based on the incoming material inspection, abnormal materials, delivery timeliness, customer complaints handling, improvement of response time, etc. Apacer will notify suppliers of each assessment result and improvement requests will be made. If the improvement is not satisfactory, the number of orders will be reduced as appropriate. According to the evaluation results, the suppliers are divided into four levels: A, B, C, and D.

In 2018, we incorporated five major RBA specifications: Labor, health and safety, environmental protection, ethics, and management systems into the our annual evaluation. The first phase is to introduce large-scaled suppliers that have factories and are willing to implement the RBA requirements. In the future, we will continue to extend the procedure to more suppliers, make a joint effort with suppliers to align with international standards, and gradually improve the sustainability management competency of suppliers.

Apacer's priority is to review RBA assessment results of Class A suppliers and make sure that they are in compliance with RBA regulations. In the future, Apacer will extend the RBA assessment to Class B suppliers. If the assessment results are unsatisfactory, Apacer will provide relevant counseling and assistance.

-2019 Supplier Evaluation and Ranking

Since the implementation of Apacer's evaluation, we continue to conduct audits and provide related counseling in order to make joint progress with our partners. In 2019, a total of 294 deficiencies were identified, around 20~30 per month. Each deficiency has been issued an abnormal notification and the improvement plans have been requested of suppliers within a 3-days period. The progress of the improvements will be tracked. All 294 deficiencies have been solved in 2019.

In order to encourage and assist our supplier partners to improve, Apacer has optimized the supplier evaluation standard and advocate it on the 2019 supplier conference. Thanks to our cooperative supplier partners, all of them upgraded to Class B or above.

Items for Apacer's Annual Supplier Evaluation: Quality, HSF, Delivery Timeliness, Cooperation, RBA Audit

Supplier Evaluation and Tiered Management

Supplier Ranking	Evaluation Standard	Management System
A	90 – 100 points	Increase the quantity of order(s) or give incentives where appropriate
B	80 – 89 points	No incentives or disincentives will be given
C	70 – 79 points	Reduce the quantity of order(s) and require timely improvement
D	Below 69 points	Supplier will be relieved of their HSF-qualified supplier status

2018

Taiwan
- A 92.6%
- B 5.7%
- C 0.6%
- D 1.1%

Non-Taiwan Region
- A 100%

2019

In 2019, all suppliers are Class B or above.

Taiwan
- A 89.1%
- B 10.9%

Non-Taiwan Region
- A 94.3%
- B 5.7%

- Future Planning of Supplier Auditing

Our current evaluation methods have received positive feedback from suppliers but Apacer will continue to make improvements since we plan to keep all suppliers in Class B or above. We plan to improve our evaluation methods in 2020 by integrating evaluation items into AGP (Apacer Green Product Web System). The evaluation, which used to be conducted manually every 3 months or once a year, is now automatically conducted by the system on a monthly basis and the results are published in order to achieve a fair, open, real-time and transparent evaluation.

After the evaluation, the system will automatically lock out unqualified suppliers and suspend the purchase transactions to ensure that the Company is not affected. We ensure that our suppliers are devoted in maintaining good quality in order to achieve Apacer's goal of working together with our supplier partners.

- Green Supplier Ranking System

Aside from the 5 major items used to classify supplier rankings, Apacer launched the "Green Supplier Ranking System" in 2016 based on the existing Supplier Management Procedures in evaluating suppliers' management competency of hazardous substances. The "approval rate" and "timely update" of the RoHS test report uploaded by the suppliers are used as references for score calculation. Procurement personnel can use this ranking to evaluate the suppliers' HSF management competency and to require them to improve, or to eliminate inferior suppliers based on supplier rankings during the supplier annual audit. This will help us better meet international and customers' latest requirements and specifications.

In 2019, Apacer focused on guiding suppliers to comply with the Green Supplier Ranking System and assisting them in taking inventory of qualified materials. We will also update relevant reports to improve the comprehensiveness of our internal information system and enhance the effectiveness of suppliers' Green Supplier Ranking. In addition, we have developed a Green Supplier Ranking system and an annual supplier assessment system to encourage suppliers to improve their green rankings and raise their annual supplier assessment score.

Green Supplier Ranking in Recent Years

Ranking	Points	Number of suppliers in 2017	Number of suppliers in 2018	Number of suppliers in 2019
A	90 – 100 points	47	187	251
B	80 – 89 points	162	26	7
C	70 – 79 points	16	9	4
D	Below 69 points	45	32	26
Total		264	254	288*

Class A suppliers Increased to **87**%

Note: A total of 288 suppliers are categorized in green supplier ranking in 2019. The suppliers listed in the supplier policy are those who conducted business with Apacer in 2019.

## Annual Supplier Conference: Communications and Mentoring

Our suppliers are important partners to Apacer in becoming a green business. Therefore, we organize supplier conference once a year to explain the Company's important quality and environmental policies, and communicate the latest international legal requirements and standards. At the same time, we invite professional consultants or auditors from accreditation companies to deliver the latest trends and status of management systems.

A total of 55 suppliers and 86 representatives attended Apacer's supplier conference in 2019. After the supplier conference, we send out questionnaires to our suppliers to understand the level of attendees' satisfaction. This year's survey response rate was 90.7%, with an overall satisfaction rating of 9.3 (out of 10).

This year's discussion topics include:

A	Apacer's brand core value
B	CSR strategy and implementation direction
C	RBA Policy: Respond to changes in international environmental laws and regulations and update pacer's restricted substances regulations
D	Technical standards and requirements for green products
E	Integration of management systems and innovative technologies

Apacer continues to learn and grow with its supplier partners in terms of environmental sustainability. Furthermore, we stimulate the industry chain's management competency when it comes to green environmental issues in aligning with global environmental sustainability trends.

Communication Themes in Apacer's 2019 Supplier Conference

- Apacer's brand core values
- CSR strategy and implementation direction
- RBA policy intoduction and promotion
- Introduction to technical standards and requirements for green products
- Integration of management systems and innovative technologies

Work together

Two-way communication
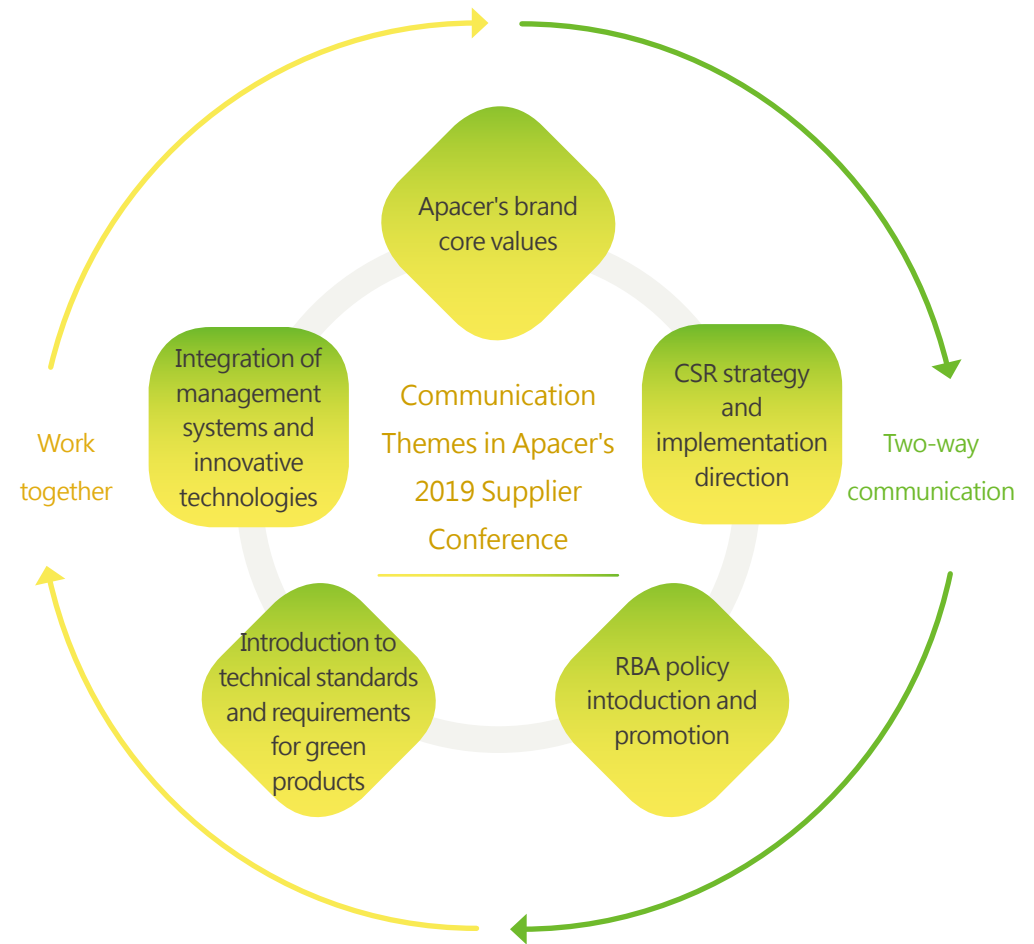
Feedback from Our Supplier Partner

This year marks the 17th anniversary of Echo Technology Corporation and Apacer partnership since they began doing business in 2003. Apacer has led Echo Technology Corporation to move forward with its excellent CSR culture and philosophy.

In the course of our collaboration, Apacer provided Echo with a lot of pointers when it comes to production details, quality, and delivery service. The two enterprises aren't just business partners, Apacer and Eco support each other to achieve a win-win situation.

Since 2009, Echo has become one of Apacer's HSF-qualified suppliers. Whether it's ensuring product environment quality or implementing management of substances that may pose a threat to the environment and humans Apacer and Echo work hand in hand. Moreover, Echo has participated in several of Apacer's major projects, including Quality Improvement Project CIP introduction (2010), and CF project in Brazil (2010) and the introduction of SSD products (2016).

This has enabled Echo to enhance production capacity, manufacturing capacity, and quality. Since Echo and Apacer share the same philosophy when it comes to sustainable management, the Echo has introduced the RBA management system in 2018 to provide employees with a better workplace and to give back to society.

As Apacer's main strategic partner and an extension of its manufacturing line, we hope to continue to work as a family in the future. Echo Technology Corporation is devoted to providing competitive services. Together with Apacer, we insist on delivering green products, caring for society and sharing the fruits of success.

Echo Technology Corporation
President Jung-Hsuan, Tsai

Material Issues 3.2 Customer Relationship Management

Niche of customer service provides the best service experience

Global marketing channels

We actively construct global marketing channels, taking into consideration the characteristics of the local market to grasp the market dynamics. We set up operations in the United States, the Netherlands, Japan, Hong Kong, China, and India to market our own brand and deepen the local market.

Customized services

With the growing memory demand for mobile devices and equipment, Apacer is committed to providing customers with customized products and services to fulfill their needs and, in doing so, get ahead in the market.
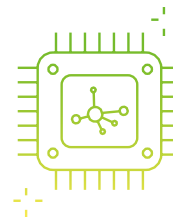
Excellent customer service team

In response to the diversity and compatibility of different platforms and applications, the technical analysis is provided under customers' requirements. In addition to the existing customer service system, we further cooperate with customers to develop a new generation platform, which helps with product development and customer communication.
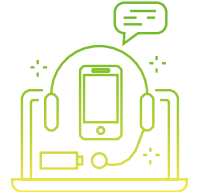
Remains considerate to customers from R&D to after-sales processes

"Access the best" is the promise we made as a brand. To reach perfection, we focus on the user experience, pay attention to every detail of product design, and view feedback from each customer as an important cornerstone of progress. Apacer also specifies the quality and HSF (Hazardous Substance-Free) policy as "delivering competitive, defect-free and hazardous substance-free products and services on time to satisfy customers" and provides customers with the best experience.

R&D and Design

Listening to customers /
We plan and facilitate the best-selling product mix from a user experience-oriented standpoint. We create a convenient, high quality, and enriched digital storage lifestyle for customers.

Insight into new technologies /
We attain insights into the advancement of the latest technology, industry movement, and customer needs through our forward-thinking mind-set. Moreover, we assist customers to develop customized, optimized solutions, and provide effective, highly-stable products and services so that Apacer can enhance our market competitiveness together with our customers

After-sales Service

Global After-sales service /
Through providing localized, timely sales and technical services from local sales agents and FAE, Apacer works to ensure 100% satisfaction and user experience from our customers.
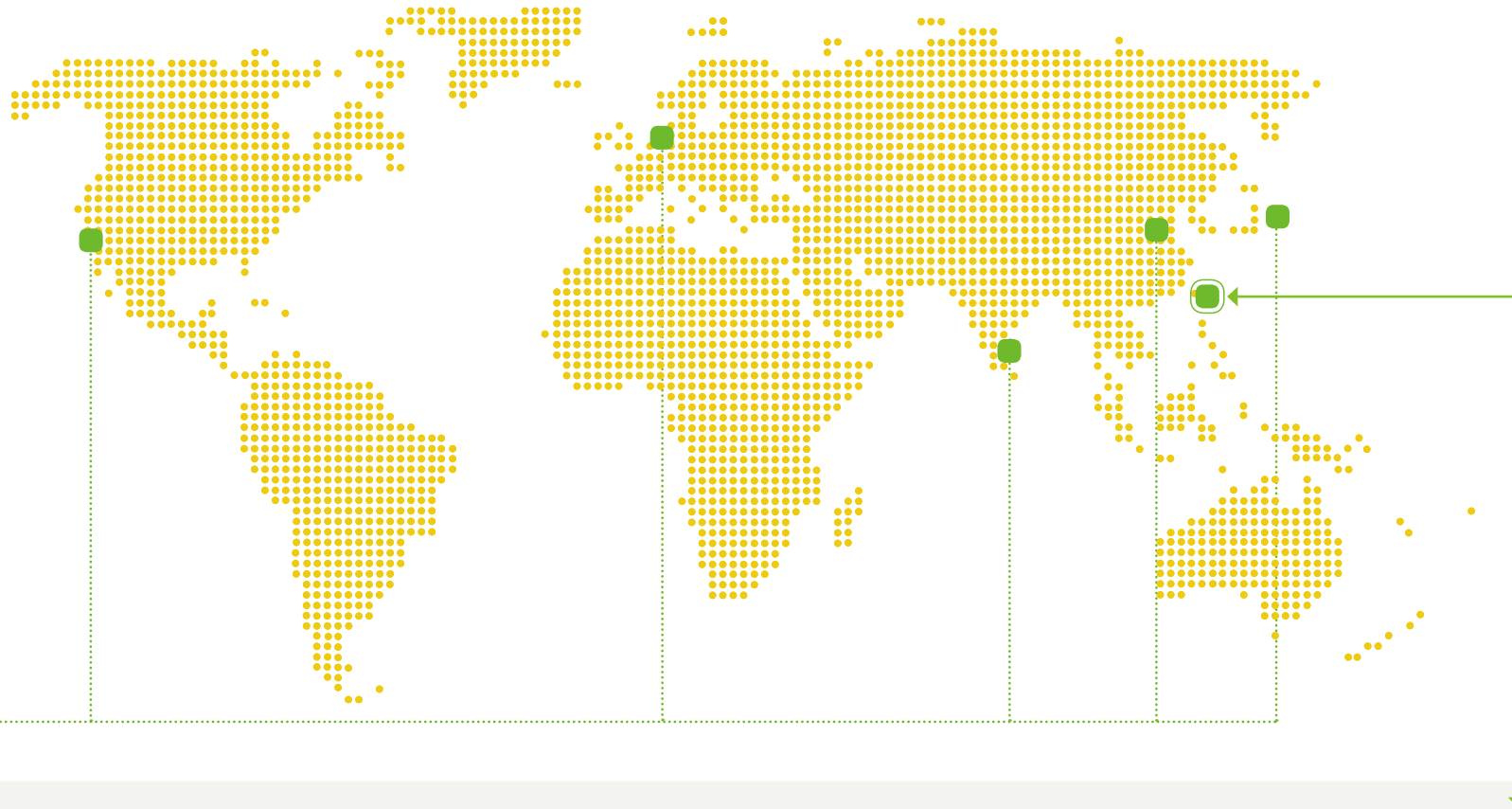
Global logistics system /
We integrate technologies from all aspects of logistics and transportation to provide customers with instant updates on shipping status, providing the fastest and most beneficial logistics service to our customers.

Connect service systems to enhance after-sales services

In efforts to enhance after-sales services, Apacer integrates reverse logistics management into the Company's ERP (enterprise resource planning) and MES (manufacturing execution system). By connecting information and databases, Apacer can manage customer information, inventory, maintenance information, and related operations. Based on collected basic information, Apacer gains a better understanding of the needs of different customers in terms of products and services and to improve product design and process capability in order to provide products that exceed customers' expectations, thereby strengthen the Company's competitiveness.

Benefits of the system integration include:

- Improve lead time of RMA (repair and maintenance service)
- Establish basic information for the quality alert system
- Enhance the quality of differentiated service and cost control capabilities

Customer / RSO

Apply for RMA → After-sales service portal webRMA

Shipping → ERP system T100

Real-time billing →

Work order → MESsystem Repair/Rework

Warehousing → ERP system T100

Providing feedback on the status → After-sales service portal webRMA

Integration of internal systems

Global After-Sales Service System

Global

- We provide localized service timely through sales and FAE

- We provide logistic transportation solution to customers so that they can better grasp transportation status. In addition, our efficient planning and competitive cost enable us to offer the fastest and most convenient logistic services.
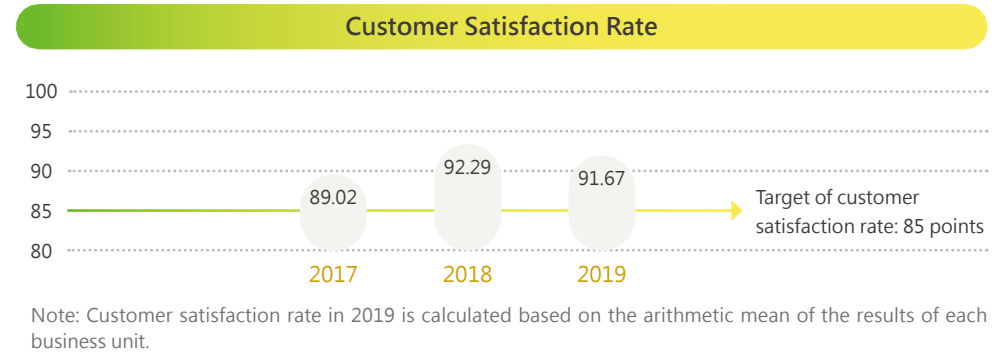
Taiwan

- Customer Service Dept. and Sales Dept. take care of after-sales service which includes technical support, customer complaint and RMA.

- We have service centers in northern, central and southern Taiwan or agents to provide after-sales service, include return or repair services.

Annual Customer Satisfaction Survey

We conduct customer satisfaction surveys every year. Over the years, the results of the annual customer satisfaction survey have reached our target, 85 points. Customer satisfaction in 2019 was 91.67, slightly lower than that of 2018.

The decrease in the score is due to the sampling of different clients. For feedback with lower scores, the Sales Department actively conducts reviews, analysis, and improvement to better provide products and services that meet customers' needs.

Customer Satisfaction Rate

	2017	2018	2019
	89.02	92.29	91.67

Target of customer satisfaction rate: 85 points

Note: Customer satisfaction rate in 2019 is calculated based on the arithmetic mean of the results of each business unit.

Affirmation from Customers

I have known Apacer for 8 or 9 years. I was in purchasing when I first worked with Apacer. Most of the purchases we made from Apacer were industrial control products, and I always considered Apacer's products to be a bit on the"pricier" side. That was my first impression of Apacer.

To be honest, I didn't have much interaction with Apacer afterward. However, after being transferred to PM team, I have learned more about the Apacer's company. For Apacer, what matters the most is value, not price.

Apacer's sales representatives frequently come to visit and are prompt when it comes to replying our e-mails. Lead time is responded in a timely manner as well. Apacer has a professional technical support team. In terms of customer complaints, FAE provides professional analysis in a responsible attitude. As for uploading the GPM substance survey, we are satisfied with their quick response and data accuracy.

Apacer gives me the impression that they won't give a flowery sales pitch. They will always keep their promises. I think Apacer is more like our partner, instead of just a corporation we do business with.

Apacer provides a comprehensive collection of products and services. There is a manifestation of remarkable self-improvement and persistence. For example, we are fond of Apacer's beautiful and practical coil notebooks, but unfortunately, Apacer launched a new version in 2019. We were all pretty upset about it. After I talked to the sales for a few times, coil notebooks are back this year, with an even more stunning look! Apacer really pays attention to its customers. Our relationship with Apacer has exceeded a simple buy and sell transaction and has become more of a sustainable partnership. We work and grow together!

This my current impression of Apacer.

Advantech Co., Ltd.
Product Manager
Lindsay Chou

Chapter 4

A Good Partner in a Friendly Workplace

Vision

Apacer's core value is "Delivering on Our Promise, Constant Improvement, and Mutually Beneficial." Upholding the philosophy "Becoming Better Partners," Apacer has integrated CSR into our human resources development policies. Combing A+ Healthy, A+ Family, A+ Work with CSR & RBA as the vertical axis; food, clothing, housing, accessibility, education, recreation and exercise as the horizontal axis, we provide A+ EAP (Employee Assistance Programs) with 28 items for employees and received numerous awards, demonstrating Apacer's dedication to a sustainable enterprise that is mutually beneficial to employees and their families.

Policy and Commitment

We are devoted to providing competitive compensations and benefits. We introduce a dual-track talent system and Employee Assistance Programs, as well as construct comprehensive education and training to create a friendly and healthy workplace that allows employees to balance their work and personal life.

Contribution to the United Nations Sustainable Development Goals (SDGs)

3 Good health and well-being

4 Quality education

5 Gender equality

Issues of the Chapter

Material Topics：Occupational health and safety

Corresponding Material Topic (2018) GRI 403 Occupational Health and Safety

How to Manage

Responsibility	- Occupational Health and Safety Office
Resources	- Manpower: Occupational Health and Safety Committee - Budget: Budget will be allocated annually by Corporate Social Responsibility Committee and Occupational Health and Safety Committee
Channels of Communication	- Regularly Convene Corporate Social Responsibility Committee and Occupational Health and Safety Committee - Promote relevant knowledge and events via the Company's Intranet

Action

- Disaster prevention measures
- Safety and health education program
- Automatic inspection mechanism
- Employee health management
- Monitor and improve working environment, and plan for a gradual return to work

Sustainable Goal

Short-term goal (2020)	- Build a comprehensive workplace in accordance with relevant occupational safety laws - Less than one case of occupational injury. - Receive ISO 45001 Occupational Safety and Health Management Certification
Mid-term goal (2021~2023)	- Receive the certificate of Accredited Healthy Workplace from the Health Promotion Administration
Long-term goal (After 2024)	- Build a trustworthy employer brand

Evaluation Method

- ISO 45001 Occupational Safety and Health Management Certification
- The total case of occupational injury
- The status of the certificate of Accredited Healthy Workplace from the Health Promotion Administration
- Apacer has a turnover rate below 3%.
- Employee engagement and employee satisfaction survey

Achievements and results in 2019

Exceeding goals：
- Eliminate RBA certification deficiencies and improve RBA scores in health and safety.

Achieved goals：
- Renew OHSAS 18001 Occupational Health and Safety Assessment Series Certification.

Contribution to the United Nations Sustainable Development Goals (SDGs)

SDGs 3 Good Health and Well-being

Material Issue：Employee benefits / Talent Cultivation

Corresponding Material Topic GRI 401 Employment GRI 404 Training and education

How to Manage

Responsibility	- HR and Administration Department
Resources	- Manpower: HR and Administration Department - Budget: Budget will be allocated annually by the Corporate Social Responsibility Committee, Strategy, and Management Committee, Employee Welfare Committee, and Responsible Business Alliance Committee
Channels of Communication	- Regularly convene Corporate Social Responsibility Committee, Strategy and Management Committee and Employee Welfare Committee - Promote relevant knowledge and events via the Intranet

Action

Employee Benefits:
- Provide a welfare system that exceeds the requirements in the Labor Standard Act
- Promote Apacer A+ EAP (Employee Assistance Programs)
- Establish a work-life balance friendly workplace
- Promote a healthy sport-supporting workplace

Talent Cultivation:
- A dual-track talent system
- Apacer Academy
- TTQS (Taiwan Training Quality System) management loop

Sustainable Goal

Short-term goal (2020)	Employee benefits: - A+ Healthy, A+ Family, A+ Work with CSR & RBA as the vertical axis; food, clothing, housing, accessibility, education, recreation and exercise as the horizontal axis, we provide A+ EAP (Employee Assistance Programs) with 28 items for employees. Talent cultivation: - Use the 5 PDDRO (Plan, Design, Do, Review and Outcome) aspects as management loop to review planning and development of training
Mid-term goal (2021~2023)	Employee benefits: - Continue to acquire RBA certification - Acquire the Ministry of Labor's the Work-Life Balance Award - Acquire the Sports Enterprise Certification Award from the Ministry of Education Talent cultivation: - Acquire the TTQS Bronze Medal from Ministry of Labor - Honored with National Talent Development Awards from Ministry of Labor
Long-term goal (After 2024)	- Build a trust-worthy employer brand

Evaluation Method

Employee benefits:
- Plan to pass the audit of RBA certification
- Receive the Sports Enterprise Certification Award from the Sports Administration, Ministry of Education

Talent cultivation:
- Honored with the TTQS Bronze Medal from Ministry of Labor
- The implementation rate of talent development courses is over 90%.

Employee benefits:
- Plan to pass the audit of RBA certification
- Acquire the Ministry of Labor's the Work-Life Balance Award

Talent cultivation:
- Honored with the TTQS Bronze Medal from Ministry of Labor
- The implementation rate of talent development courses is over 90%.
- The progress of receiving National Talent Development Awards from the Ministry of Labor

- Apacer has a turnover rate below 3%.
- Employee engagement survey and satisfaction survey

Achievements and results in 2019

Exceeding goals：
- Improve the benefits of migrant workers
- Eliminate RBA certification deficiencies and improve RBA scores in health and safety aspects
- Honored with the Sports Enterprise Certification Award from the Ministry of Education

Contribution to the United Nations Sustainable Development Goals (SDGs)

SDGs 3 Good Health and Well-being / SDGs 4 Quality Education / SDGs 5 Gender Equality

4.1 Employee Overview

Employee Policy and Declaration of Rights

Declaration of Apacer's Employees' Rights

Ensuring employee rights

- All employees are entitled to the same human rights protection. We do not discriminate on the grounds of an employee's race, gender, educational background, marital status, or other such conditions.
- Our company has clearly defined the RBA's Manual, which emphasizes the importance of free employment, young workers, wage and hour, humane treatment, freedom of association and anti-discrimination.
- To protect employees' rights, all employees will sign a recruitment contract on the date of their being hired.
- No discrimination or forced labor occurred in 2019.
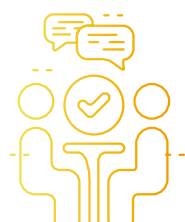
Protecting freedom of association

- Apacer protects the right of freedom of association.
  Employees can freely form clubs and freely establish or participate in labor unions.

Prohibiting unlawful child labor

- We have never hired an employee under the age of 16, and we strictly prohibit minor employees from participating in hazardous work. The Company specifies child labor remedial measures and regulations for the management of minor workers.
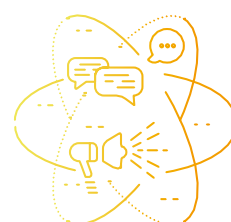
Diverse communication channels

- We have clearly defined our employee grievance reporting methods to solve incidents related to employees' rights and unfair treatment.
- We regularly organize employment relations conferences to strengthen mutual trust between employers and employees.

Overview of Employees Worldwide

By the end of 2019, Apacer has 586 employees around the world. Among them, 11% are in management positions. Direct employees working in the production line account for 30% of all employees; while indirect employees account for 70%. In terms of gender distribution, female employees account for 55%, and male employees account for 45% of all employees.

The Number of Apacer's Employees Worldwide

Year	Number
2016	450
2017	472
2018	589
2019	586
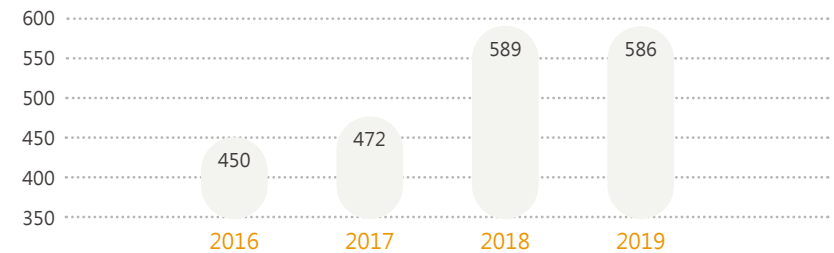
2019 Distribution of Employees Worldwide

Item	Category	Male Number	Male Percentage	Female Number	Female Percentage	Group Subtotal and Percentage Number	% of the total
Taiwan	Full-time	224	99.6%	276	98.9%	500	99.2%
	Part-time	1	0.4%	3	1.1%	4	0.8%
Overseas	Full-time	39	100%	43	100%	82	100%
	Part-time	0	0.0%	0	0.0%	0	0.0%

Note: Overseas areas include the U.S.A, the Netherlands, India, China, and Japan.
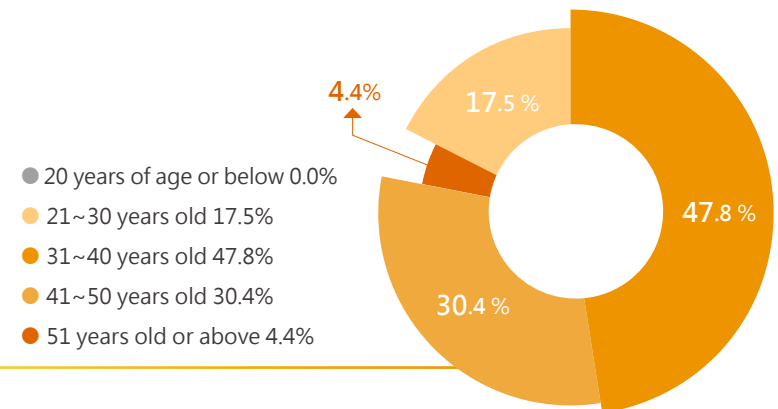
Overview of Employees in Taiwan

Apacer values the cultivation of local talents. In 2019, Apacer's local employees account for 86% of its total employees. In addition, members of the Company's internal Strategy and Management Committee include the Chairman and Chief Strategy Officer, President, Vice President, Special Assistant, and two BU supervisors. All six senior managers are local employees in Taiwan, which account for 1% of employees worldwide.
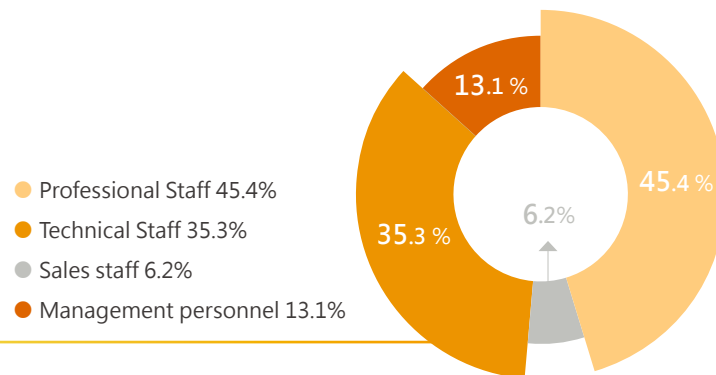
In terms of employee composition for Apacer's headquarters in Taiwan, direct employees in the production line account for 35%, and indirect employees account for 65%. Regarding the educational background, most employees have a bachelor's degree or higher, accounting for 79%. As for age distribution, most employees are between 31 to 40 years old, accounting for 48%, followed by employees between 41 to 50 years old, accounting for 30%.
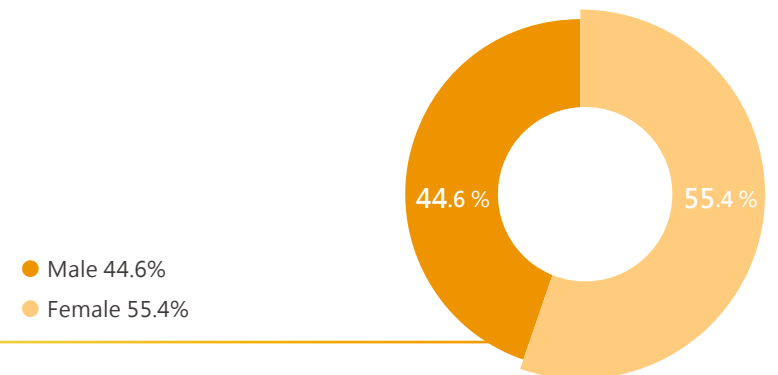
Distribution of educational background of Employees in Taiwan

- Doctorate Degree 0.2%
- Master's Degree 19.2%
- Bachelor's Degree 59.9%
- High school 19.0%
- Others 1.6%

0.2%
1.6%
19.2 %
19.0 %
59.9 %

Age distribution of Employees in Taiwan

- 20 years of age or below 0.0%
- 21~30 years old 17.5%
- 31~40 years old 47.8%
- 41~50 years old 30.4%
- 51 years old or above 4.4%

4.4%
17.5 %
47.8 %
30.4 %

Distribution of Job Title of Employees in Taiwan

- Professional Staff 45.4%
- Technical Staff 35.3%
- Sales staff 6.2%
- Management personnel 13.1%

13.1 %
45.4 %
6.2%
35.3 %

Gender Distribution of Employees in Taiwan

- Male 44.6%
- Female 55.4%

44.6 %
55.4 %

2019 Statistical Data on Employees in Taiwan

Item	Category	Male Number	Male %	Female Number	Female %	Group Subtotal and Percentage Number	% of the total
Type of Contract	Full-time	224	99.6%	276	98.9%	500	99.2%
	Part-time	1	0.4%	3	1.1%	4	0.8%
Type of Employee	Direct	47	20.9%	131	47.0%	178	35.3%
	Indirect	178	79.1%	148	53.0%	326	64.7%
Type of Position	Management Staff	42	18.7%	24	8.6%	66	13.1%
	Professional Staff	116	51.6%	113	40.5%	229	45.4%
	Sales Staff	20	8.9%	11	3.9%	31	6.2%
	Technical Staff	47	20.8%	131	47.0%	178	35.3%
Distribution of Educational Background	Doctorate Degree	1	0.4%	0	0.0%	1	0.2%
	Master's Degree	63	28.1%	34	12.2%	97	19.3%
	Bachelor's Degree	140	62.2%	162	58.1%	302	59.9%
	General and Vocational High School	20	8.9%	76	27.2%	96	19.0%
	Others	1	0.4%	7	2.5%	8	1.6%
Age Distribution	Below 20	0	0.0%	0	0.0%	0	0.0%
	21~30	39	17.3%	49	17.6%	88	17.5%
	31~40	103	45.9%	138	49.5%	241	47.8%
	41~50	73	32.4%	80	28.7%	153	30.4%
	Above 51	10	4.4%	12	4.2%	22	4.3%
Marital Status	Married	120	53.3%	133	47.7%	253	50.2%
	Single	105	46.7%	146	52.3%	251	49.8%
Physically and/or Mentally Handicapped		0	0.0%	3	100.0%	3	0.6%
Indigenous People		1	20.0%	4	80.0%	5	1.0%
Gender		225	44.6%	279	55.4%	504	100.0%
Total						504	

Note: Technical Staff are direct employees working in the production line

New Employees and Outgoing Employees

Apacer has a turnover rate below 3% every year. This will remain our goal, as we continue to maintain a stable supply of manpower and talent development in the future.

2019 Structure of New Employees and Outgoing Employees in Taiwan

Type	Group	New Employees Persons	New Employees % of Employees in the category	Outgoing Employees Persons	Outgoing Employees % of Employees in the category
Gender	Male	59	41.3%	60	40.3%
	Female	84	58.7%	89	59.7%
Age	Below 30	50	35.0%	46	30.9%
	31~50	93	65.0%	101	67.8%
	Above 51	0	0.0%	2	1.3%
Total		143		149	
The percentage of people to the total number		28.4%		29.6%	

2019 Turnover of Employees in Taiwan

Number of Original Employees	Number of New Employees	Number of outgoing employees Manager	Number of outgoing employees Non-manager	Number of outgoing employees Subtotal	Number of persons at the end of the year	Turnover rate
510	143	7	142	149	504	2.4%

Note: The calculation of the turnover rate is based on the statistics of employees from the Minister of Labor

Employee Safety and Health

Occupational Safety and Health

Apacer received the OHSAS 18001 Occupational Health and Safety Management Systems certification in 2013. The certification was renewed in 2017 and re-certificated in 2018.

Moreover, OHSAS 18001 was renamed ISO 45001:2018 Occupational Health and Safety Management Systems in 2018. Apacer plans to get the new certification in 2020. Based on the PDCA principle, we achieve occupational safety and health management by implementing measures including risk evaluation, risk control and management, and regular improvements.

ISO 45001:2018 Occupational Health and Safety Management Systems

Apacer's Occupational Safety and Health Management System

Internal Audit
- Irregular internal audits: Carry out irregular internal audits every year and report the results at the quarterly Occupational Safety and Health Committee meeting.
- Regular internal audits: Carry out regular Internal audits every year. Self-inspection is conducted prior to external audits to ensure that relevant Management Measures are operating properly.

External Audit
- Carry out external audits every year. Renew, re-certificate and transfer according to the validation period of the management system.

Note 1: The Occupational Safety and Health Management System covers Apacer's operational headquarters and workers, but does not include employees in overseas sales offices.
Note 2: The above workers refer to all Apacer's employees in Taiwan, one on-site customer, and 10 property management personnel.

Occupational Safety and Health Committee

In order to provide a more friendly and healthy workplace and reduce occupational disasters, Apacer has established the"Occupational Safety and Health Committee" in accordance with the Occupational Safety and Health Act. The Occupational Safety and Health Committee is directly under the supervision of the President and convenes meetings quarterly to review issues regarding occupational safety and health.

Operation of Occupational Safety and Health Committee in 2019

- Added Procedure for Gradual Return to Work
- Less than one occurrence of operational disaster in a year
- 40 training courses on occupational safety and health education
- Passed all workplace environment examinations

Number of representatives of employees and employersc	5 from employees, and 10 from employers
Election method of employee representatives	Elected by all of the full-time employees
Term of service	2 years
Frequency of meeting	Once quarterly; Four meetings were convened in 2019
Discussion issues	- Occupational Safety and Health Management Plan - Workplace Monitor Plan - Transfer Occupational Safety System OHSAS 18001 to ISO 45001 - Fire system overhaul

Note 1: Representatives from employees account for more than 1/3 in the Occupational Safety and Health Committee in accordance with the law.
Note 2: The level of Occupational Safety and Health Committee is raised. It is directly under the supervision of the President.

| Disaster Prevention and Handling | Working Environment Inspection | Workplace Safety Control | Health Management |

We have implemented occupational safety and health management through four specific measures. To minimize operational risk for employees, we conduct operational control for high-risk operating procedures through disaster prevention, safety and health education programs, implementation of automatic inspections, and employee health management. Over the years, no labor-hours have been lost due to an occupational disease.

● Disaster Prevention and Handling

To prevent occupational hazards, Apacer has established a Safety and Health Management Plan and Occupational Safety System to manage any potential risks. In addition, we have implemented the Occupational Safety and Health Management Plan as well as irregularly inspected the workplace environment in our production facilities. In addition, all injury, non-injury, and false-alarm incidents are reported and tracked to eliminate potential hazards. By implanting the above measures, we hope to achieve the management objectives of less than one occurrence of operational disaster a year.

Apacer has established a detailed investigation process for "occupational injuries." The investigator, together with a labor representative, must investigate the cause of the accident, and the investigation report must be signed by the President. Besides, the injured employees must be provided with counseling services on their health. To help the injured employees return to work, a gradual return to work system has been established to ensure that the injured employees are given medical care and suggestion by medical staff in the factory/office. We also assist injured employees in applying for insurance coverage.

According to the Occupational Safety and Health Act, employees have withdraw rights. If employees believe there is a serious hazard in the workplace, they can leave immediately and assemble at the emergency assembly point. For general workplace risks, Apacer has established a risk assessment

system to evaluate risks. Risks are managed and improved according to different levels. If there are accidents related to wind, flood, fire, and earthquake, an emergency response team will be immediately formed, and relevant response measures, as well as procedures, will be established to contain the hazard. In the meantime, the cause of the hazard will be investigated, and preventive measures will be reviewed to avoid the recurrence of relevant accidents.

2019 Statistical Data on Occupational Safety and Health Education Training

Courses	Total Participants	Total Hours
Safety and Health Education Training for New Employees	127 [1]	381
General Employee Safety and Health Education Training [2]	491	491
Radiation Protection Training	13	54
Training for Safety and Health Personnel	9	45.5

Note1: Only Taiwanese staff are counted here; foreign staff are recordeded separately.
Note2: General Employee Safety and Health Education Training as well as Ethical Management and RBA Training are included.

● Working Environment Inspection

Apacer regularly commissions qualified operating environment inspection institutions to conduct working environment inspection. Items to be measured include dust, organic solvents, carbon dioxide, and lighting. Once abnormalities are found in the measurement results, improvements and corrections will be undertaken immediately to protect employees' health and safety.

Workplace Safety Control

In accordance with the Occupational Safety and Health Act and the results of Safety Risk Assessment, Apacer has implemented special operations controls and work permits for overhead operations, hot work, and equipment capable of producing ionizing radiation to maintain a safe workplace. At the same time, automatic inspection is carried out, and all machinery equipment is inspected regularly in accordance with the law. Machinery operators should obtain a professional qualification and undergo regular on-the-job retraining.

Workplace Safety Control

To prevent injuries, operators need to wear protective gear based on the nature of their operations in accordance with the law. Furthermore, to ensure that operators are not exposed to radiation hazards, regular equipment inspections are carried out. We also require operators to wear radiation dosimeter badges and undergo radiation health checkups to properly monitor the radiation dose they received as well as their health status.

Health Control

In order to fully understand employees' health conditions and to prevent occupational diseases, Apacer regularly conducts health checkups for operators. Inspection items for checkups are divided into "general operations" and "special hazard operations" based on the types of operations. For employees who come into contact with potential health hazards such as ionizing radiation or organic solvents, special checkup items are carried out. Also, we have implemented classified management.

Health abnormalities' related to work will be evaluated and handled with classified management. At the same time, the Company has commissioned on-site nurses to fill out "personnel health risk evaluation charts" to help employees pay attention to their health conditions. We have also implemented a "Workplace Health Promotional Plan" and carried out health promotion seminars and activities to provide employees with information on how to live a healthy life.

A+ EAP Healthy Employee Assistance & Exercise Programs

Activity		Number of Participants in 2019
Courses and lectures on body, mind, and spirit	2 courses on first aid training 2 courses on health	161 persons
Physical fitness test		83 persons
Health checkup (In addition to standard items specified by the Ministry of Labor, items such as bone mass measurement, bioelectrical impedance analysis, intraocular pressure, ovarian cancer for female employees, prostate cancer screening for male employees, abdominal ultrasound, Helicobacter pylori test, and cardiac check-up are included.)		443 persons

Statistics on Occupational Disease Rate, Lost Time Rate, Absent Rate, and Work-Related Injury Rate in the Recent 3 Years

Year	2017		2018		2019	
Gender	Male	Female	Male	Female	Male	Female
Total hours of work[1]	369,101	547,111	566,840	602,766	557,568	680,064
Total workdays	46,138	68,389	55,849	69,377	65,736	80,178
Number of injuries	0	0	8	3	0	0
Injury Rate (IR)[2]	0	0	2.82	0.99	0	0
Number of work-related deaths	0	0	0	0	0	0
Total work-related injuries	0	0	0	0	0	0
Total lost days	0	0	3	0	0	0
Lost day rate (LDR)[3]	0	0	1.29	0	0	0
Total absent days[4]	145	820	141	531	352	1039
Absence rate (AR)[5]	0.003%	1.4%	0.001%	0.002%	0.5%	1.2%
Number of serious work-related injuries[6]	0	0	0	0	0	0
Serious work-related injury rate	0	0	0	0	0	0

Note 1: Total hours of work are calculated on the "number of employees x total workdays x eight working hours per day."
Note 2: Injury rate (IR) = (total work-related injuries/total hours of work) x 200,000*
Note 3: Lost day rate (LDR) = (total lost days /total hours of work) *200,000*
Note 4: The definition of absence: Employees are absent from work due to loss of their ability to work, including but not limited to occupational injuries or illnesses (for example, occupational diseases, sick leave, and menstrual leave). Traffic accidents are not included.
Note 5: Absent rate (AR)= total absent days/ (number of employees x total workdays)
Note 6: A serious injury causes death or makes a worker difficult to return to pre-injury health status within six months.
Note 7: * indicates 50 weeks per year, 40 working hours per week, for every 100 employees

Cases of Occupational Injury and Occupational Disease (Employees Excluded)

Year	2018		2019	
Gender	Male	Female	Male	Female
Total work-related injuries *	0	0	0	0
Injury rate (IR)	0	0	0	0
The number of deaths	0	0	0	0

Note*: Refers to the number of recordable occupational injuries, including deaths caused by occupational injuries.

Material Issues 4.3 Employee Benefits and Communications

● Apacer A+ EAP (Employee Assistance Programs)

Apacer promises to create a healthy and friendly workplace for every single one of our employees.

2017
A+ Happy Workplace Plan

Our "A+ Happy Workplace Plan" plans various benefitting activities revolving around health, family and work. We received the certificate of Accredited Healthy Workplace from Health Promotion Administration, Ministry of Health, and Welfare.

2018
Apacer A+ EAP (18 items)

Apacer took things to the next level by upgrading to the "Apacer A+ EAP (Employee Assistance Programs)" with cohesion and organizational development as foundation. With A+ Healthy, A+ Family, A+ Work with CSR & RBA as the vertical axis, food, clothing, housing, accessibility, education, and recreation as the horizontal axis, we provide A+ EAP with 18 items for employees. We were honored with the Ministry of Labor's Work-Life Balance Award.

2019
Apacer A+ EAP (28 items)

Apacer continues to make improvements. Apacer promotes a healthy workplace by embodying the CSR and RBA's spirit of sustainable management, and encourages employees to be active in order to be healthy! In addition to A+ Health, A+ Family, and A+ Work, the vertical axis is combined with "CSR & RBA" to form a total of 4 main aspects. The horizontal axis includes food, clothing, housing, movement, education, and music. In addition to food, clothing, housing, accessibility, education, and recreation, the horizontal axis also includes "exercise", to form a total of 7 programs. Our 28-items Employee Assistance & Exercise Programs are what won us the Sports Enterprise Certification Award from the Sports Administration, Ministry of Education.

The Development of A+ EAP

Employee Assistance Programs

A+ Work

A+ Family

Enjoy Job   A+ Healthy   Enjoy Life

Employee Assistance Programs

CSR

RBA

Employee Cohesion & Organization Development
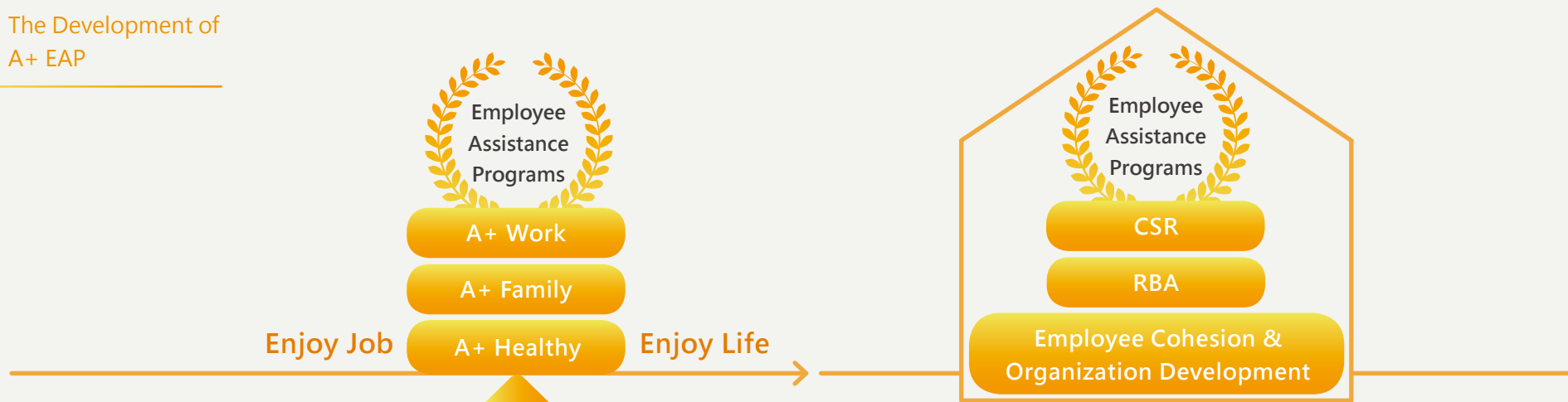
A+ EAP Achievements

Enjoy Job /

Honored with Ministry of Labor's the Work-Life Balance Award in 2018

Employee Assistance Programs

A+ Work

A+ Family

A+ Healthy

Enjoy Life /

Honored with the Sports Enterprise Certification Award by the Sports Administration, Ministry of Education in 2019.

Received the certificate of Accredited Healthy Workplace from Health Promotion Administration, Ministry of Health and Welfare in 2017 and 2018.

The items of A+ EAP

Employee Assistance Programs

	Food	Clothing	Housing	Transportation	Education	Recreation	Exercise
A+ Work	- Provision of 3 meals a day - Department gathering	Apacer uniform	- Employee Lounge - Creativity Center	- Flexible working hours - Shuttle bus	- New employee training - On-the-job training	- Massage day - More holidays than the legally-required minimum	- Sports clubs - Sports instructor
A+ Family	Group food purchase	Exchanging secondhand goods	- Nursing room - Designated seats for pregnant workers	Spousal insurance	- Novice parents - Childcare incentives - Childcare measures	- Family Day - Employee trips - Family Arts Gallery	- Sports Day - Running Day
A+ Healthy	Vegan Day	Dry cleaning of uniforms	- Dual certification in environmental and safety - Medical Center	Sports Day	Stress-relief courses Health seminars	Happy health checkup	- Exercising areas - Fly wheel areas - Sports competitions
CSR / RBA	Food allowance	Free laundry for migrant workers	Free accommodations, incentives for referral fee and licenses for migrant workers	Transportation allowance	- One-Day Volunteer - Teenager care program	Pass down and share project	Sponsorship for local school

● A+ EAP - Pregnant Employee Assistance Program

Highlights

- We grant maternity allowance NT$ 6,000 per month before the child is 6 months old.
- Temporary child care area

- Pregnant employee assistance project
- Reinstated after Unpaid Parental Leave project
- Award-winning nursing rooms

Since 2018, Apacer has provided a full range of care for employees' children with its "family and children supporting" program. To support employees in childcare, we grant a monthly allowance of NT$ 6,000 to employees giving birth until the baby is 6 months old. If both parents are our employees or if they have twins, they will get 50% more in allowance to relief some of their financial burden in childcare.

We provide designated seats for pregnant employees and also arrange nurses to conduct risk assessment and risk control. We arrange doctors to give health guidance and health education to alleviate pregnant employees' physical stress during their pregnancy. Pregnant employees can request for adjustments or reduction of workload or even changing the duties according to their physical and mental conditions. Nursing rooms with comprehensive facilities and equipment have also been set up in our offices to create a friendly workplace.

For employees who take unpaid parental leave, Apacer provides care and assistance before they return to work. We also provide suggestions on returning to work, helping new parents return to the workplace. We have built a temporary childcare area in the company. During unexpected school closures, employees can bring their children to the workplace without the need for childcare or take a day off.

Apart from providing childbirth and childcare allowances, the Company also implements an unpaid parental leave system in accordance with the "Regulations for Implementing Unpaid Parental Leave for Raising Children." Regardless of their sex, all employees that have worked at Apacer for more than 6 months are eligible to apply for unpaid parental leave to strike a balance between work and family life.

Statistics on 2019 Unpaid Parental Leave	Male	Female
A: Number of Employees Eligible to Apply for Unpaid Parental Leave	11	8
B: Actual Number of Applications for Unpaid Parental Leave	0	2
C: Number of Employees to Be Reinstated After Unpaid Parental Leave	0	2
D: Actual Number of Employees Reinstated After Unpaid Parental Leave	0	1
E: Number of Employees Reinstated After Unpaid Parental Leave in the Previous Year	0	1
F: Number of Employees Reinstated in the Previous Year and Who Have Worked for More than 1 Year	0	1
Application Rate (B/A)	0%	25%
Reinstatement Rate (D/C)	0%	50%
Retention Rate (F/E)	0%	100%

● A+ EAP－Apacer was honored with the Sports Enterprise Certification Award

Austin Chen, Apacer Chairman, is promoting the concept of a healthy workplace: "Start exercising to be healthy!"

Asa senior executive who sets an example for other employees, President Chang Chia-kun founded the basketball club in promoting exercise. Moreover, around 50% of Apacer's employees participated in Apacer's 2019 Sports Day. Apacer and employees can Mutually Beneficial to create a win-win situation.

With the Sports Administration actively promoting sports instructors, Apacer has acquired government grants in hiring sports instructors and gradually worked towards a healthy workplace. They provide counseling and advice to sports clubs to increase the intensity and variety of physical training available for employees. Moreover, Apacer has promote the health benefits of exercise to its employees.

Apacer continues to promote a healthy workplace and was honored with the Sports Enterprise Certification Award by the Sports Administration, Ministry of Education.

● A+ EAP Activities

The items of A+ EAP	Food	Clothing	Housing	Transportation	Education	Recreation	Exercise
A+Family	Group food purchase	Exchanging secondhand goods	- Nursing room - Designated seats for pregnant workers	Spousal insurance	- Novice parents - Childcare incentives - Childcare measures	- Family Day - Employee trips - Family Arts Gallery	- Sports Day - Running Day

Activity	Sports Day & Running Day
Period	Since 2016
Participants	In-direct employees and their families

Benefit	In 2016, we invited Eddie Pan to lead employees to exercise every Wednesday in order to help them build a good exercise habit. In 2017, Chairman Austin Chen invited all managers to join the exercise group and form daily exercise habits. In 2018, employees and their families were invited to Apacer's 21th Anniversary and Family Day. In response to words from Chairman, Vice-President led Apacer's employees in joining a public road run in 2018.

The items of A+ EAP	Food	Clothing	Housing	Transportation	Education	Recreation	Exercise
A+Work	- Provision of 3 meals a day - Department gathering	Apacer uniform	- Employee Lounge - Creativity Center	- Flexible working hours - Shuttle bus	- New employee training - On-the-job training	- Massage day - More holidays than the legally-required minimum	- Sports clubs - Sports instructor

Activity	Sports clubs & Sports instructors
Period	Since 2013
Participants	All employees

Sports Instructor

Benefit	Six sports clubs that enrich employees' exercise habits, including the Golf Club (of which the Chairman is a club member), Basketball Club (President is the club leader), Badminton Club, Jogging Club (Vice-President is the club leader), Cycling club, and Boxing club.

The items of A+ EAP	Food	Clothing	Housing	Transportation	Education	Recreation	Exercise
A+Healthy	Vegan Day	Dry cleaning of uniforms	- Dual certification in environmental and safety - Medical Center	Sports Day	Stress-relief courses Health seminars	Happy health checkup	- Exercising areas - Fly wheel areas - Sports competitions

Activity	Aerobics area, flywheel area and sports competitions
Period	Since 2013
Participants	All employees

Benefit	1. Apacer's headquarters include an aerobics area and a flywheel area. The Company offers exercise apparatus such as flywheels, horse riding machines, foosball tables, and XBOX 360 so that they can have healthy workout every day. 2. The President regularly holds internal basketball competitions.

Welfare policy for migrant workers

Apacer view migrant workers to be of no difference to Taiwanese employees. Our migrant workers participate in the same activities and enjoy the same benefits of Taiwan employees. Since joining the RBA in 2017, Apacer has gained a deeper understanding on the expenses for migrant workers in Taiwan. In addition to the free dormitory, transportation allowance, food allowance and meal allowance, we also pay for one-time referral fee (including all on-the-job migrant workers), monthly referral service fee, medical check-ups, licenses, and return air ticket.

Diverse and Fluent Employee Communications

Apacer values employees' opinions and has established diverse communications channels. We have also established "Employee Grievance Handling Procedures" and "Workplace Sexual Harassment Grievance and Punitive Measures." In addition, we regularly convene employment relations conferences so that employees can express their thoughts and opinions. We also interview new employees to understand their working conditions and assist them to rapidly adapt to the environment.

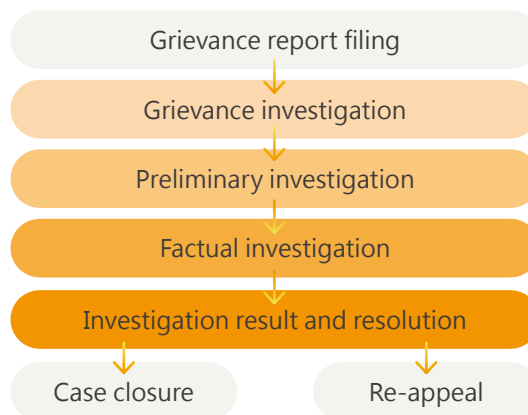| Employee Grievance Reporting Procedures | Labor Relations Conference | New Employee Interview |

Employee Grievance Reporting Procedures

Apacer clearly defines the handling of employee complaints that applies to all employees in the Company.

This allows employees to access an open and unimpeded channel to report unfair labor incidents or illegal activities that affect the Company.

Employees can file a written grievance to the HR and Administration Department and the Auditing Office. After receiving the grievance, the receiving units will conduct a preliminary document review. They will interview the relevant personnel for an incident investigation. The identity of the grievant will be kept confidential, if necessary. The result of the investigation shall be replied to the grievant in written form within 30 days. If there is any objection, the grievant may re-appeal within 10 days after receiving the result. No employee has filed a grievance by the end of 2019.

Grievance report filing
↓
Grievance investigation
↓
Preliminary investigation
↓
Factual investigation
↓
Investigation result and resolution
↓   ↓
Case closure   Re-appeal

Labor Relations Conference

Although Apacer has not formed a labor union, we hold employment relations conferences every quarter. In the conferences, we communicate issues regarding the company's various systems, policies, workplaceenvironment, and safety and health with the employees to strengthen mutual trust between employers and employees.

The results of the conferences will be important references for the Company to continuously improve its management system. As a result, we can protect the rights and interests of all employees and promote a smooth two-way communication between employers and employees.

2019 Operations of Labor Relations Conference

Number of representatives of employees and employers	5 representatives from employees, and 5 from employers
Election method of employee representatives	Elected by all of the full-time employees
Term of service for board members	3 years
Frequency of meeting	Once quarterly; Four meetings were convened in 2019
Discussion issues	1. Company operating status and profitability 2. Labor law revisions 3. Annual new product planning 4. Discussion on CSR activities and employees' benefit activities

Sexual Harassment Prevention and Grievance Method

Apacer has established the "Workplace Sexual Harassment Grievance and Punitive Measures." We prohibit any sexually harassment behavior to protect employees' rights.

The HR and Administration Department will be the point of contact for sexual harassment incidents. The incident-reporters can ask to maintain anonymity. In terms of dealing with such incidents, the point of contact will convene a special "sexual harassment grievance handling team" based on the incident, and female representatives shall account for more than 1/2 of the team members. The team will be responsible for investigating and proposing punitive suggestions and the President will make the final decision.

If the sexual harassment incident is found to be true, an oral/written warning, demerits, job transfer, reduction/termination of bonuses will be given based on the severity of the incident. The point of contact or the handling team will refer the victim to a professional institution for psychological counselling or therapy if needed.

Furthermore, Apacer also provides gender equality promotions and magazines for our employees in accordance with government policies. No sexual grievance incident has occurred by the end of 2019.

New Employees Interview

In order to better understand the needs of employees and to help new employees blend in the workplace, Apacer conducts newcomer employee interviews every year. Employees can make suggestions on various aspects, such as the workplace environment, company welfare, education and training.

The Company will also respond to their suggestions and make improvements. We hope to establish positive and transparent communication channels and workplace atmosphere through face-to-face interviews. In 2019, a total of 27 suggestions were provided by new employees, and the Company responded to 27 comments. The response rate was 100%.

Welfare
Suggestions : 6
Reply : 6

Workplace
Suggestions : 2
Reply : 2

Others
Suggestions : 7
Reply : 7

Reply rate of new employees' suggestions 100%

Equipment and system
Suggestions : 8
Reply : 8

Education and training
Suggestions : 4
Reply : 4

4.4 Compensation System

● Compensation and Benefits of Employees

Better than the terms required by the Labor Standards Act

- More holidays than the legally-stipulated minimum and flexible working hours for indirect personnel
- Support and encourage childbirth: provide paternity leave, pregnancy hospitalization leave, unpaid parental leave, and childcare incentives
- All employees can enjoy a free annual health checkup and weekly stress relief massage

Benefits

Financial benefits	Non-financial benefits
- Annual increase in wages - Holiday gift vouchers - Birthday gift vouchers - Travel subvention - Wedding/funeral allowance	- Provision of 3 meals a day - Weekly stress relief massage - Free annual health checkup - More holidays than the legally-stipulated minimum - Family-oriented group insurance - A+ EAP

Salaries

- Salaries above P75 market level
- Salaries above P50 industry level

Bonus

- Bonus for three major traditional holidays
- Performance-based bonuses (correlated to personal performance)
- Employee compensation and bonus (correlated to company performance)

Incentives

- Incentives for food and accommodations
- Shift incentives
- Overseas incentives
- Spousal allowance
- Childcare incentives
- Relocation allowances for moving to/returning from overseas assignment
- Settling-in allowances for moving to/returning from overseas assignment

Apacer established a Compensations Committee in 2011 in accordance with the law. Consisting of Independent Directors, Compensations Committee regularly reviews policies, systems, standards, and structures of the performance and compensations of directors, supervisors, and managers. The Committee also reviews the performance of the management team and the employees' compensation policy.

To ensure the competitiveness of our compensations, Apacer has adopted compensation reports from professional consulting firm as references to the compensation standard in the industry over the years. Based on the operational status, we allocate approximately 10% to 20% of our surplus each year to our employees in order to attract outstanding talents and encourage them to make long-term contributions.

In addition to fixed wages, we have also established a bonus system including sales bonuses, performance bonuses, R&D bonuses, and team bonuses to encourage employees to continuously pursue excellence and surpass themselves at work. We have also set up employee stock options and profit-sharing systems to strengthen employees' dedication and cohesion.

2019 Annual Total Compensation Ratio

Position	Male	Female
Management staff	1.11	1.00
Professional staff	1.28	1.00
Sales staff	1.08	1.00
Technical Staff	0.93	1.00

Note: Apacer adopts fair and equal standards when it comes to employee compensation. Employees of different genders, job categories, positions, and job tenure account for different proportions. In recent years, Apacer has expanded the number of R&D staff (professional staff). Since most of Apacer's R&D staff are male, there is larger difference in compensation ratio for professional staff.

2019 Entry-Level Staff in Comparison to Local Minimum Wage

Gender	Apacer's Compensation	Local Minimum Wage	Male/Female Wage Ratio
Male	1.08	1.00	1:1
Female	1.08	1.00	

Note: Local minimum wage is calculated based on the minimum monthly salary of NT$23,100 salary that was stipulated on January 1, 2019.

Compensation for Apacer's Non-managerial positions

Item	2018	2019
Number of non-managerial employees	459 persons	482 persons
Average annual salary of non-managerial employees	NT$881,000	NT$909,000
Median annual salary of non-managerial employees	NA	NT$742,000

Note: Based on the average number of the Company's employees, employees refer to the number of employees employed in Taiwan after deducting managers, part-time employees, and those who have been employed for less than six months. Salaries include basic pay, overtime pay, allowances, bonuses, and compensation, with the exception of stock-based compensation which is not included.

2019 Benefits Expenditure

Benefit Item	Amount (NT$)	The number of employees benefited
Childbirth allowance	$474,000	20
Group insurance	$1,257,715	6,214
Holiday bonus	$38,550,914	968
Performance bonus	$59,065,000	477
Wage	$44,047,000	461
Pension	$1,034,920	2
Massage service	$21,360	1,068
Spring party	$2,739,053	442
Family event	$2,294,049	1,046
Total	$149,484,011	10,698

Employee Welfare Committee Item	Amount (NT$)	The number of employees benefited
Marriage subsidy	$26,400	12
Funeral subsidy	$44,100	21
Childbirth subsidy	$44,000	20
Hospitalization subsidy	$37,400	17
Travel subsidy	$2,264,994	398
Club subsidy	$74,552	99
Total	$2,491,446	567

● Retirement System

Apacer has established an Employee Retirement Plan in accordance with the Labor Standards Act, specifying the allocation of pensions, retirement conditions for employees, and pension paying. At the same time, the "Employee Retirement Reserve Supervision Committee" has also been established in accordance with the law. The employee retirement reserve is deposited in the statutory financial institution in the name of the committee. In response to the government's new retirement system in July 2005, employees who opt for the new system are required to allocate 6% of their pension into the Labor Insurance Bureau's personal pension reserve account. On the other hand, for those who choose the old system, their pension reserve is allocated in accordance with the original method. Thus, the retired life of every employee will be protected.

● Diverse and Healthy Workplace

Comfortable Resting Area

Apacer views employees as important work partners and family members. We hope that employees can feel at home while working at the Company. Therefore, we set up an employee resting and reading area on the first floor of the operational headquarters to provide a multi-functional recreational space. In addition, an assortment of books and magazines are also provided. There are also a number of independent and stylish resting areas in the office for employees to utilize. We hope to reduce the sense of restraint in the office, and to create a diverse space to inspire unlimited creativity in employees.

Sports Area

To give our employees a chance to exercise on a daily basis, Apacer has set up a sports area at its headquarters. We provide different kinds of equipment, such as flywheel apparatus, horse riding machines, foosball tables, and XBOX 360. We encourage employees to use them so that they can have healthy workout every day at the office.

Since the Sports Administration has been actively promoting sports instructors, Apacer's sports instructors have started to promote a healthy workplace. They provide counseling and advice to sports clubs to increase the intensity and variety of physical training for employees, and promote the health benefits of exercise. Upholding the core value of "Delivering on Our Promise, Constant Improvement and Mutually Beneficial," Apacer is willing to Becoming Better Partners for its employees.

Diverse Sports Clubs

Apacer encourages employees to actively participate in recreational activities in their free time. Therefore, we encourage employees to form their own clubs. Furthermore, we provide club-organizing grants and subsidies for activities to support the operation and development of said clubs. Currently, Apacer has a number of sports clubs, including basketball club, cycling club, boxing club and golf club. These clubs promote the interaction among employees from different departments. We hope every employee can enjoy a healthy and colorful life.

Talent Cultivation and Development

Material Issues 4.5

New Employee Training

Training is focused on the Company's operating objectives, developmental vision, environmental policy, management systems, company rules, and SOP. It is also for new employees to identify with the Company's core value.

General Employee Training

We arrange general training for all employees, including interpersonal relations and communications, autonomous management, innovation camp, and the professional training needed by each department. Moreover, labor safety and health and fire prevention training are also organized regularly in accordance with legal regulations.

Entry-level Manager Training

Strengthens awareness of responsibilities, work procedural planning competency, and fosters positive executive capability as well as basic awareness of financial data in employees.

Mid-tier Manager Training

The focus of the training here is on innovative capability, risk forecast, and control based on climate change, and understanding and utilizing financial information on a timely basis.
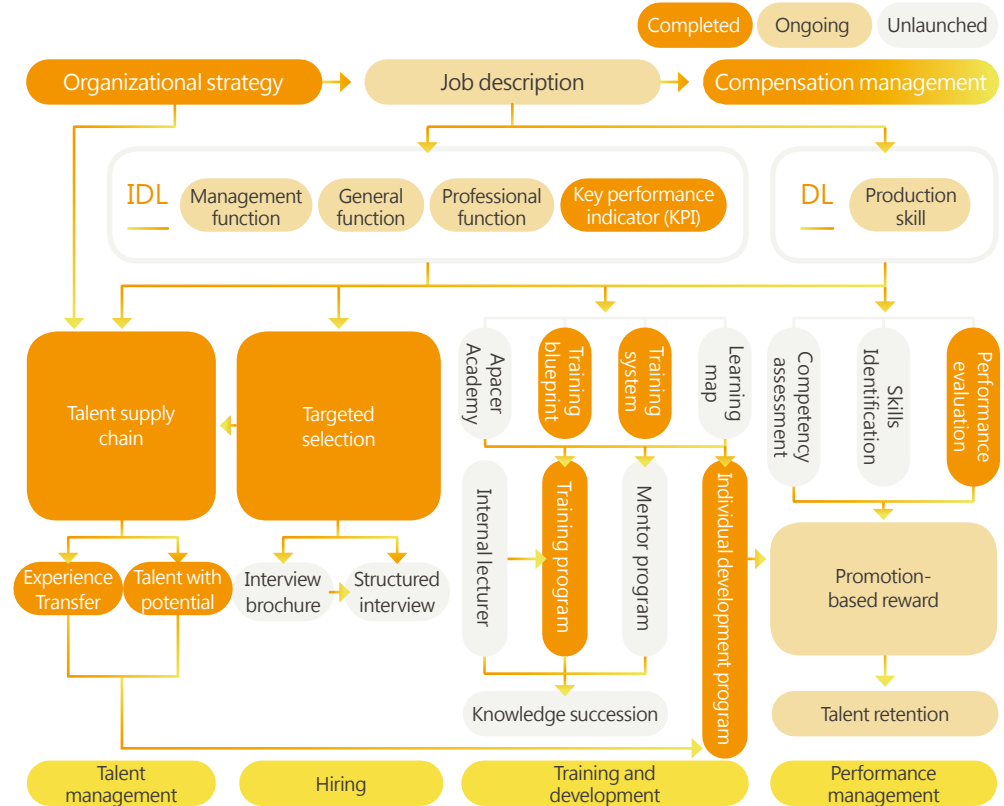
Elite Training

Employees with positive potential are scouted to receive such training from the management team. These employees are trained to become future managers through case studies aided with project management and process improvement.

Expat Professional Training

Courses include language training and cross-cultural training.

## A Function-Based Talent Development framework

Apacer has planned a function-based talent management development framework for the establishment of an Apacer Academy in which employees can seek managerial and professional career development. Using previous training blueprints, we've expanded different learning courses. Our goal is for the Apacer Academy to become a dual-track talent learning system.

● A Learning Blueprint for Education and Training

Apacer has established a learning blueprint for education and training, linking the needs of various units and KPIs to design "new employee training" and "on-the-job training" courses. Besides regularly undertaking learning effectiveness evaluation and review, we also link individual performance with bonuses to systematically enhance employees' capability development, while raising the effectiveness and their willingness to learn.

Training Blueprint
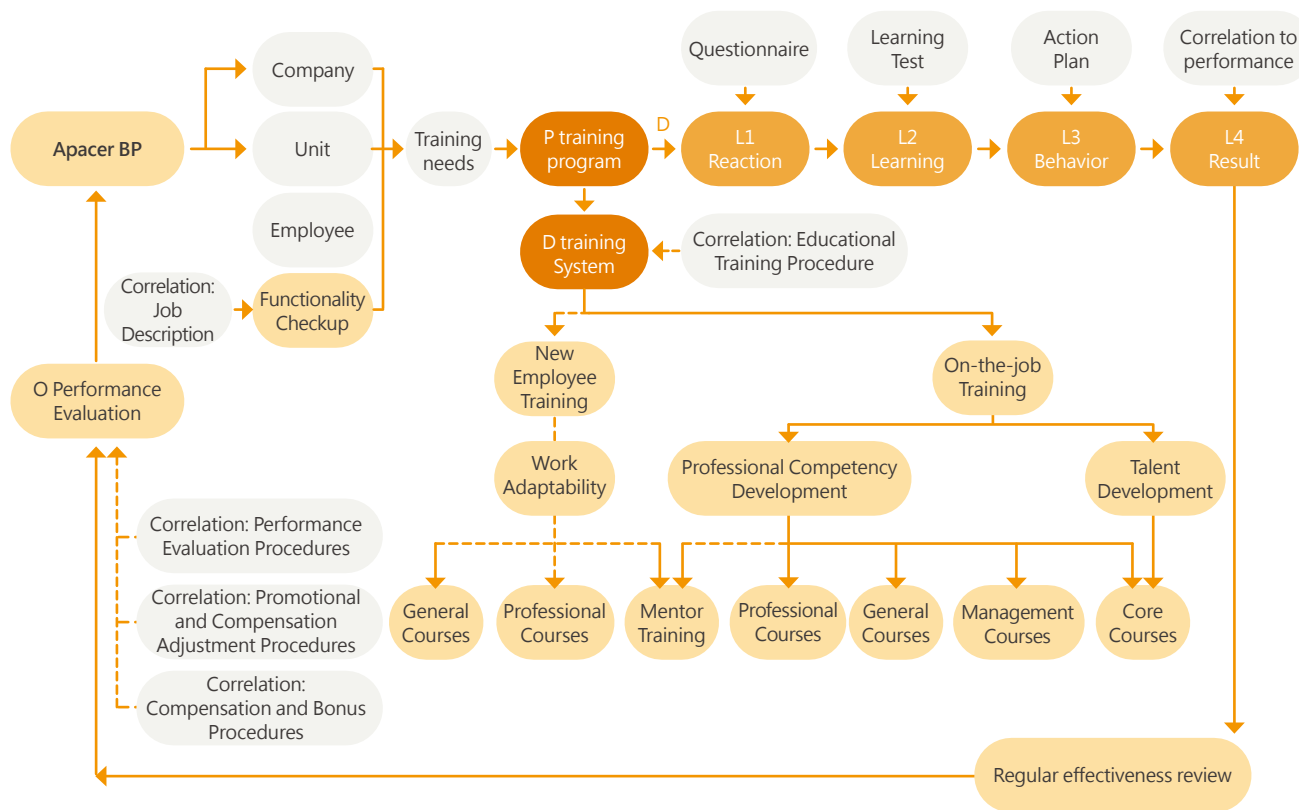
● Education and Training Courses

Apacer understands that our employees are the source of our growth and competitiveness. We provide diverse educational training to enhance employees' professional competencies, enabling them to face challenges from the rapidly changing external industry environment.

To provide courses that better meet the needs of employees, HR and Administrative Service Department interviews supervisors and staff from each department, and conducts after-course satisfaction surveys. During annual training surveys, the supervisors of each department can raise education and training needs. This can help employees achieve the developmental objectives of the Company and make sure that the courses fulfill the needs of the employees.

The structure of the training curriculum is classified into new employee training, general employee training, manager training, and manager candidate training. Apart from hiring external lecturers, we also invited internal experts to serve as lecturers to pass on their experience.

2019 Statistics of Education and Training Courses

Type of Courses	Total participants	Total training hours	Budget proportion	Total expenditure (NT$)
New Employee Training	322	813	5.1%	
General Employee Training	3,161	9,433	59.9%	
Manager Training	13	26	0%	
Manager Candidate Training	221	895	20.5%	$1,662,273
Expat Professional Training	121	901	14.5%	
RBA & Ethical Management Training	491	491	0.0%	
Total	4,329	12,559	100%	

Average hours of training received by an employee in 2019		
Position	Average hours of training received (male)	Average hours of training received (female)
Management Staff	35.9	37.3
Professional Staff	36.9	22.8
Sales Staff	28.8	18.7
Technical Staff	2.3	1.9

Diverse Learning and Development

In addition to the education and training courses, there are also other ways for employees to enhance their professional skills. Apacer encourages employees to undertake work or departmental rotations, develop multidisciplinary expertise, or hone their skills by taking part in the Company's study groups. Employees can participate in certification training courses outside the Company, or apply for short-term training courses from professional agencies, training institutions, or colleges. Apacer will fully subsidize the training if the course is necessary for the employee's work.
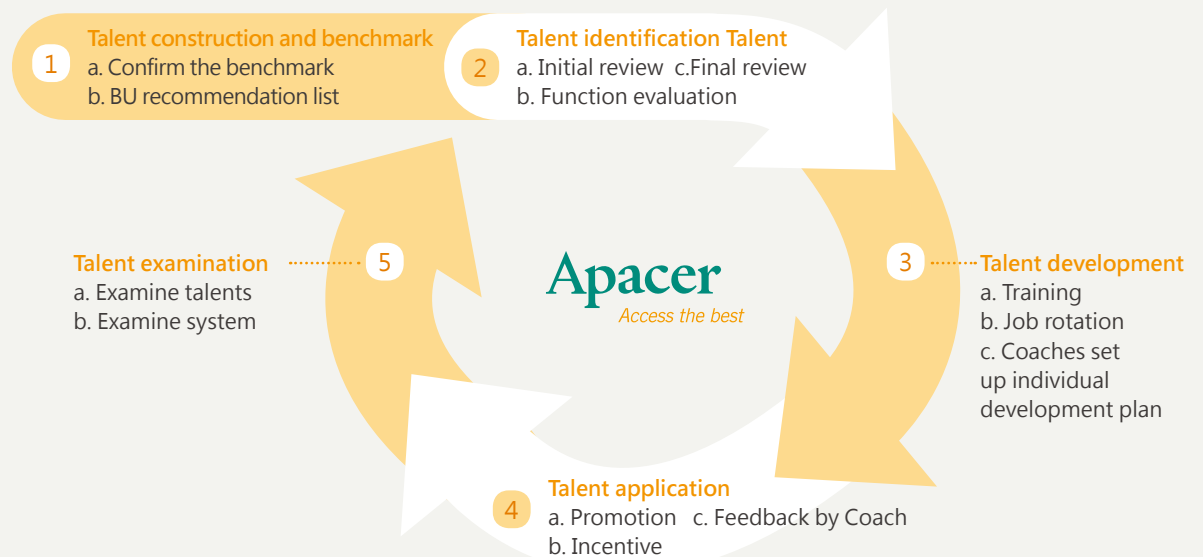
Cultivation of Potential Talents – Talent Supply Chain

In order to continue to provide and train talent, Apacer has built a "talent supply chain" mechanism in response to market competition and various operational challenges. We have explored promising talents, nurtured them into potential talents, and eventually turned them into the Company's long-term core talent. HR and Administration Department is responsible for the overall planning and launching of the talent supply chain mechanism. Talents of every stage are recommended by department-level supervisors. BU Managers are responsible for the initial review. The Strategy and Management Committee composed by senior directors is responsible for the final review.

After the list of talents of every stage is confirmed, HR and Administration Department provides Coaches according to the needs of talents. Coaches help in establishing personal development plans. Then, HR and Administration Department arranges development courses for talents at each stage based on professional assessment. Moreover, the Strategy and Management Committee will assess rotation mechanism in view of the operational strategy. Apacer gives corresponding rewards to talents based on their development.

Talent Supply Chain

1 Talent construction and benchmark
a. Confirm the benchmark
b. BU recommendation list

2 Talent identification Talent
a. Initial review c.Final review
b. Function evaluation

3 Talent development
a. Training
b. Job rotation
c. Coaches set up individual development plan

4 Talent application
a. Promotion   c. Feedback by Coach
b. Incentive

5 Talent examination
a. Examine talents
b. Examine system

Apacer
Access the best

Employee Performance Evaluation

All of Apacer employees that have passed on-board training are subject to annual performance evaluations, including all direct and indirect personnel. Apacer's incentives and punitive measures as well as a promotional system are also designed based on the results of the performance evaluations, allowing the performance evaluations to be effectively connected to the bonus system and future development plans.
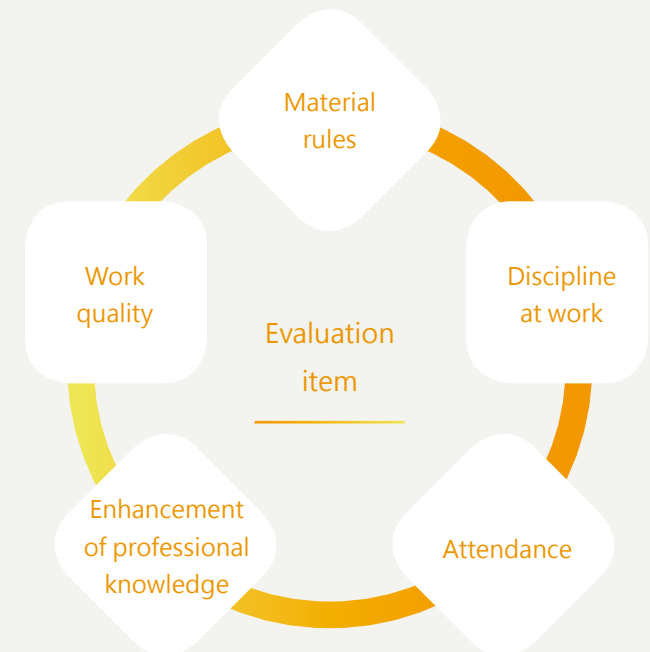
Performance Evaluation of Direct Employees

Performance evaluation of direct employees is undertaken every month. The performance evaluation items include five major categories, which are material rules, work quality, discipline at work, enhancement of professional knowledge, and attendance. The monthly performance evaluation assesses employees' level of performance, and performance-based bonuses will be awarded to employees as encouragement for efficiency and productivity improvement.

Performance Evaluation of Indirect Employees

Performance evaluation of indirect employees is undertaken every six months. The performance evaluation items for indirect employees are classified into "target evaluation" and "competency evaluation." In terms of "target evaluation," supervisors will talk with the workers of their departments to jointly establish targets before January each year. The establishment of employee's annual KPI performance shall be in line with the Company and the department's objectives.

The "competency evaluation" refers to the Company's competency and skills chart to assess the employee's performance on core abilities including communication and teamwork, efficiency, self-growth, and leadership. The overall evaluation will be based on these two categories. The annual performance evaluation will be undertaken at mid-year and at the end of the year to evaluate the work of employees. It will also be used to examine the employees' performance and whether their individual development plan is appropriate.

Material rules

Discipline at work

Evaluation item

Work quality

Enhancement of professional knowledge

Attendance

Chapter 5

A Good Partner in a Livable and Synergistic Homeland

Vision

We hope to maintain positive interaction with local neighborhoods and organizations. We encourage employees to give back to the neighborhoods and together build a wonderful livable homeland. We aim to exert to the greatest, respect local development and create a sustainable and synergistic environment.

Policy and Commitment

Our headquarters is located in Tucheng District, New Taipei City, with our factory and office building located at the same site. We not only support local development through practical actions but also promote traditional culture and be friendly to the environment of the neighborhoods. In addition, we establish long-term cooperation with local groups and encourage employees to participate in our CSR activities to expand our influence.

Contribution to the United Nations
Sustainable Development Goals (SDGs)

11 Sustainable cities and communities

Issues of the Chapter

Material Issue : Communications and giving back to the local community	Corresponding Material Topic : GRI 413 Local Communities

How to Manage

Responsibility	- Corporate Marketing Office
Resource	- Manpower: Mainly consist of members from the Corporate Marketing Department, internal staff are allocated when appropriate and external agencies are entrusted for the planning and execution of events. - Budget: Budget is allocated year by year based on the goals of the given year.
Channel of Communication	- Communicate with internal and external stakeholders through supplier conference and quarterly CSR review meetings. - Local Partner Meetings - Social Media Communication - Communication window for stakeholders: Mei Lin, Senior Project Director Tel: (02)2267-8000 Ext. 5519 Email: Mei_Lin@apacer.com Address: 1F., No. 32, Zhongcheng Rd.,Tucheng Dist., New Taipei City 236

Action

Long-term local activity:
- Green Cultivation Plan - Local Environment Maintenance and Care
- Promote local care event and encourage employees to participate
- Support local education
- Promote culture and arts

Sustainable Goal

Short-term goal (2020)	- Assist development of the local environment and traditional culture with 2 to 3 projects (planned) for a year.
Mid-term goal (2021~2023)	- Raise the awareness of CSR-related issues among employees, and cultivate 50 CSR potential promoters through internal courses.
Long-term goal (After 2024)	- Aiming at sustainable operation, we hope to keep making profits and give back to the society in the next five years. Apacer promises to build a livable and synergistic homeland.

Evaluation Method

- Satisfaction and employee participation of Green Cultivation Plan.
- Effectiveness of local education programs promotion
- Effectiveness of Arts and culture project promotion
- Taiwan Corporate Sustainability Award (TCSA) - Award winning results

- Number of CSR potential promoters
- Employee participation rate in internal CSR courses

Achievements and results in 2019

Achieved goals:	- Green Cultivation Plan attracted 37 employees to participate in the one-day volunteer activity. - Publish CSR Report in Mandarin and English - Donation to track team at New Taipei Municipal Yulin Junior High School and Folk Drums & Art Troupe at Tainan Municipal Daguang Elementary School - Honored with Taiwan Corporate Sustainability Award (TCSA) - Gold Medal for the CSR Report category

Contribution to the United Nations Sustainable Development Goals (SDGs)

SDGs 11 Sustainable Cities and Communities

Material Issues 5.1

Local Participation

Upholding its brand core value of "Delivering on Our Promise, Constant Improvement and Mutually Beneficial," Apacer has invested in sustainable long-term projects, "Green Cultivation Plan" and "Supporting Local Education" in order to "Becoming Better Partners." In addition, we hold a series of CSR activities with NPOs/ NGOs, communities, schools, and our local neighborhoods. We hope our employees can get a better understanding of the local ecology, as well as make contributions to exert the spirit to "Becoming Better Partners."

In terms of local participation, Apacer will continue to invest in CSR and invite upstream and downstream partners to participate, hoping to bringing more strengths together to fulfill CSR and achieve our vision of sustainable development.

Ecological Protection - Green Cultivation Plan

This year marks the fourth year of Apacer's "Green Cultivation Plan". Since 2016, Apacer has integrated the local Tung Blossom Festival to promote the protection of the mountain woods. In 2018, we made connections with the local ecology in the form of firefly restoration tours. In addition to promoting the ecology protection within the Company, we also featured a firefly tour, teaching our employees and their families to learn and cherish the beauty of fireflies.

To promote environmental and ecological awareness, a new local natural environment and ecology maintenance project was added to "Green Cultivation Plan " in 2019. Volunteers from "Tucheng Nature Protection Association" gave an introduction on the ecological environment of Shanshi Temple. They also pointed out the foreign species that needed to be eradicated. Apacer led our employees to remove the foreign species around Shanshi Temple. We use our actions to become good partners for the local community.

On Volunteer Day (April 26, 2019), employees removed Wandering Jew, a foreign specie from the wild. Wandering Jew is common in humid areas with low to middle elevation. They can easily found on the mountain walls around Shanshi Temple easily. They even spread on the ground and out-compete native plant species, which may lead to the extinction of local species. Our employees were aware of the gravity of this problem, and rolled up their sleeves to help with their eradication and helped maintain a sustainable ecology balance.

There were 37 people participated in the event, with Chairman Austin taking the lead to set a good example. Once they spotted Wandering Jew, they were eradicated immediately. Several bags of Wandering Jew were collected in less than an hour. The Abbot couldn't help laughing and said, "Volunteers from Apacer are extremely efficient. I hope they come here more often to help maintain the ecological balance here." Our employees also think that such activities are very meaningful and can contribute to the community in a practical way and look forward to next year's volunteer activities.

Apacer - Results of the Green Cultivation Plan Over the Years

2015 Empower-ment	Month of Vegan Diet for Carbon Reduction, Onsite Diagnostics by Taiwan Energy-Saving Patrol	Five seminars were held and a total of 218 employees participated.Nearly 60% of the employees stated that "the event increased their willingness to choose a vegetarian diet."
	Green Family Day	A total of 48 employees and their family members attended the event. All interviewed participants stated that "the event inspired me to adopt energy-saving and environmentally-friendly habits"
2016 Action	Apacer One-Day Volunteer Event	A total of 34 employees and their family members participated. All Interviewed participants stated that they are "willing to participate in corporate volunteer events in the future".
2017 Strong engagement	Apacer One-Day Volunteer Event	A total of 42 employees and their family members participated. Satisfaction rate from the participants was 100%.
	Carbon Reduction Vegetarian Day	Hosted 1 Stamina Soup session and Vegetarian Meal Experiential Workshop was hosted. A total of 60 employees participated in the event.
2018 Innovative plans	Apacer One-Day Volunteer Event	- A total of 42 employees and their family members participated. 97.6% are satisfied with the ecological tour of Apacer One-Day Volunteer Event. - We cooperated with the nature protection association for 3 consecutive years to build a local network. - With innovative planning, we combined the theme of Tung flowers and fireflies on the exhibition held on first floor, gaining positive feedback.
	Parent-Children DIY Vegetarian Spring Roll	We arranged the parent-child vegetarian spring roll DIY activities to encourage employees to have a healthy diet and live a healthy life. A total of 45 employees participated.
2019 Continuous devotion	Apacer One-Day Volunteer Event	- A total of 37 employees and their family members participated. - This year's theme is the removal of foreign species and firefly viewing. - Abbot of Shanshi Temple expressed support for Apacer's activities in maintaining ecological balance.

Local Talent Development – Dream High

Since 2015, we have begun sponsored the track & field team at New Taipei Municipal Yulin Junior High School to"give back to the local community and cultivate talent."Up till 2019, we have donated NT$ 300,000 to replace old equipment and carry out off-site training in order to help the track & field team pursue their dreams. We understand the importance of nurturing the next generation. By paying long-term attention to the development of sports classes in Yulin Junior High School, we are able to learn from the experience and use it as a basis for future expansion of social influence.

Warm feedback – Warm Memories

Taiwan has an abundance of design talent, and their works are recognized internationally. Many of Apacer's products are honored with international design awards, such as iF and Good Design. We understand the importance of design to a product. In order to leverage the design power in Taiwan, we have been working with illustrators, such as Crystal, P714 and Ning's since 2016. Through cross-disciplinary cooperation, Apacer has joined hand with illustrators to produce a series of works with significant depth and warmth. Together with young Taiwanese artists, we hope to stimulate creativity and convey the Apacer's core value. It is our wish that the public is able to harvest positive energy from the works and store warm memories in life.

Year	Cross-Disciplinary Cooperation	Warm Memory
2016	We held a series of cross-disciplinary activities named "Recall and Dream" with famous illustrator Crystal Huang. Through exhibitions, lectures, social media, and co-branded products, we shared the creative process of Crystal's persistence and the never-give-up spirit to encourage everyone to bravely pursue their dreams and store every piece of warm memory in life.	
2017	We cooperated with Taiwan's original illustrator brand "P714". We launched three co-branded products, including "Fly High," "Companion" and "Support" under the concept of "dream planet" to lead everyone in roaming the colorful dream planet, feeling the warmth of friendship, and working together to make dreams come true !	
2018	We cooperated with illustrator brand, Ning's, to launch three models of co-branded AH23A flash drives: "Opportunity," "Firmness," and "Challenge." With positive energy, we aim to evoke the courage deep inside people to pursue dreams, make breakthroughs, and become a better person!	
2019	Collaborated with the illustration brand Ning's to launch the cute little blue USB flash drives: "Hope" and "Courage." In addition to the practical value of the product, the cute shape also spreads positive energy that cheers people up on a daily basis.	

Social Care

● Passing down and sharing – Warm Memories

The history of Din Tao culture (leaders of religious parade) is centuries old. There is meaning to every detail, from footwork and formation to ceremonial apparel.

Din Tao is one of the most important religious rituals in the old days. However, as time goes by, a gap has formed in the passing down of Din Tao culture. Tainan is rich in art troupe cultures, with a wide variety and large quantity. Located in Tainan, Folk Drums & Art Troupe at Daguang Elementary School hopes to promote the culture of the art troupe by nurturing the next generation.

Apacer is concerned about Taiwan's local traditional arts and understands the importance and difficulty of passing them on. Therefore, we have been donating money to Folk Drums & Art Troupe at Daguang Elementary School to help the school children learn about the beauty of traditional culture since 2018, hoping that both "folk art" and "memory" can be passed down.

At the start of 2019, Hsiu-Chih Yang, Principal of Daguang Elementary School, led the members of the troupe to the UK where they delivered a performance. With "Tradition in Taiwan: Art Troupe in London" as the theme, the performance attracted around 300 overseas compatriots and international students. They conducted flash mob performances at famous attractions such as London Bridge, Trafalgar Square and Chinatown, and were highly praised by British citizens and tourists from all over the world.

Figure: Certificate of appreciation given by Daguang Elementary School

Figure : Apacer invited the Principal of Daguang Elementary School, Hsiu-Chih Yang, to participate in the 2019 spring party and the donation ceremony for the Folk Drums & Art Troupe.

Illustration: Folk Drums & Art Troupe at Daguang Elementary School performed in London, England.

● Donations - Exerting Positive Value and Influence

Apacer believes that the true value of donations lies in building connections within the society and solving problems. We hope to make full use of each donation and exert positive influence on to society.

Year	Beneficiary	Amount of Donation (NT$)
2015	Employee donations - victims of the Formosa Fun Coast explosion incident via Sunshine Social Welfare Foundation	98,000
	2015 Songshan Cultural and Creative Park - expenses for the Original Festival	100,000
	Supporting sports - the track & field team at New Taipei Municipal Yulin Junior High School	57,220
2016	New Taipei City Tucheng Nature Protection Association	8,000
	Supporting sports - the track & field team at New Taipei Municipal Yulin Junior High School	60,000
2017	Zenan Homeless Social Welfare Foundation	8,760
	Eden Social Welfare Foundation	5,100
	Tucheng Nature Protection Association	8,000
	National Chiao Tung University	300,000
	Genesis Social Welfare Foundation	6,621
	Global Views Educational Foundation	230,000
	New Taipei's Municipal Yulin Junior High School	60,000
2018	New Taipei's Municipal Yulin Junior High School	60,000
	Tucheng Nature Protection Association	8,000
	Tainan Municipal Daguang Elementary School	150,000
2019	New Taipei's Municipal Yulin Junior High School	60,000
	Tucheng Nature Protection Association	8,000
	Tainan Municipal Daguang Elementary School	150,000

Appendix Global Reporting Initiative (GRI) Standards Comparison Table

The indicators in the below table are listed within the structure given by the 2016 version of the GRI Standards, which corresponds to the contents of this Report. Apacer adopts the new version of GRI 403:2018 to disclose information related to occupational safety and health. As stated on the Declaration for External Assurance, relevant information has been reviewed and audited in accordance with the requirements from the GRI Standards for external auditing.

GRI 102: General Disclosure 2016

Disclosure Item	Description	Description	Referenced Section	Remark
Organiz-ational Profile	102-1	Name of the organization	1.1 About Apacer	
	102-2	Activities, brands, products and services	1.1 About Apacer	
			1.4 Products and Services	
	102-3	Location of headquarters	1.1 About Apacer	
	102-4	Location of operation	1.1 About Apacer	
	102-5	Ownership and legal form	1.1 About Apacer	
	102-6	Markets served	1.1 About Apacer	
			1.3 Operating Strategy and Performance	
			1.4 Products and Services	
	102-7	Scale of organization	1.1 About Apacer	
			1.3 Operating Strategy and Performance	
	102-8	Information on employees and other workers	4.1 Employee Overview	
	102-9	Supply chain	3.1 Sustainable Supplier Management	
	102-10	Significant changes to the organization and its supply chain	1.1 About Apacer	Apacer underwent organizational changes in late 2019
	102-11	Precautionary principle or approach	1.2 Ethical Management and Corporate Governance	
			1.5 Innovative R&D	
	102-12	External initiatives	3.1 Sustainable Supplier Management	
	102-13	Membership of associations	1.5 Innovative R&D	

GRI 102: General Disclosure 2016

Disclosure Item	Description	Description	Referenced Section	Remark
Strategy	102-14	Statement from senior decision-maker	A word from the Chairman	
	102-15	Key impacts, risks, and opportunities	About this Report	
			1.2 Ethical Management and Corporate Governance	
Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	1.2 Ethical Management and Corporate Governance	
	102-17	Mechanisms for advice and concerns about ethics	1.2 Ethical Management and Corporate Governance	
Governance	102-18	Governance Structure	SSD: CSR Internal Management Measures	
			1.2 Ethical Management and Corporate Governance	
	102-19	Delegating authority	SSD: CSR Internal Management Measures	
	102-20	Executive-level responsibility for economic, environmental, and social topics	SSD: CSR Internal Management Measures	
	102-32	Highest governance body's role in sustainability reporting	SSD: Material Analysis	
	102-40	List of stakeholder groups	SSD: Stakeholder Engagement	
Stakeholder Communi-cation	102-41	Collective bargaining agreements	4.4 Compensation System	Apacer has not formed a labor union but holds employment relations conferences every quarter

GRI 102: General Disclosure 2016

Disclosure Item	Description	Description	Referenced Section	Remark
Stakeholder Communi-cation	102-42	Identifying and selecting stakeholders	SSD: Materiality Analysis	
	102-43	Approach to stakeholder engagement	SSD: Stakeholder Engagement	
	102-44	Key topics and concerns raised	SSD: Stakeholder Engagement	
Reporting Practice	102-45	Entities included in the consolidated financial statements	About this Report	
	102-46	Defining report content and topic boundaries	SSD: Materiality Analysis	
	102-47	List of material topics	SSD: Materiality Analysis	
	102-48	Restatements of information		No restatement has occurred in Apacer's previously published Reports.
	102-49	Changes in reporting	SSD: Materiality Analysis	
	102-50	Reporting period	About this Report	
	102-51	Date of most recent report	About this Report	
	102-52	Reporting cycle	About this Report	
	102-53	Contacts point for questions regarding the Report	About this Report	
	102-54	Claims of reporting in accordance with the GRI Standards	About this Report	
	102-55	GRI content index	Appendix Global Reporting Initiative (GRI) Standards Comparison Table	
	102-56	External assurance	About this Report	

GRI 103: Management Approach 2016

Disclosure Item	Description	Referenced Section	Remark
Manage-ment Approach	103-1	Explanation of the material topic and its boundary	SSD: Materiality Analysis	

GRI 200: Topic-specific Standards - Economic topics 2016

Disclosure Item	Description	Referenced Section	Remark
Economic Performance	201-1	Direct economic value generated and distributed	1.3 Operating Strategy and Performance	
	201-2	Financial implications and other risks and opportunities due to climate changes	1.2 Ethical Management and Corporate Governance	
	201-3	Defined benefit plan obligations and other retirement plans	4.4 Compensation System	
Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	4.4 Compensation System	
	202-2	Proportion of senior management hired from the local community	4.1 Employee Overview	
Indirect Economic Impact	203-1	Infrastructure investments and services supported	5.1 Local Participation 5.2 Social Concern	
Procurement Practices	204-1	Proportion of spending on local suppliers	3.1 Sustainable Supplier Management	
Material Issue: Ethical Management				
Anticorrup-tion	205-2	Communication and training about anticorruption policies and procedures	1.2 Ethical Management and Corporate Governance	

Disclosure Item		Description	Referenced Section	Remark
Material Issue: Ethical Management				
Anticorrup-tion	205-3	Confirmed incidents of corruption and actions taken		No corruption incidents occurred in Apacer's operating locations in 2019.
Management Approach	103-2	The management approach and its components	Chapter 1 Your Ideal Innovation Partner	
	103-3	Evaluation of the management approach	Chapter 1 Your Ideal Innovation Partner	
Anti-competitive Behavior	206-1	Legal actions for anti-competitive behavior		No relevant incidents occurred in 2019.

GRI 300: Topic-specific Standards - Environmental topics 2016

Disclosure Item		Description	Referenced Section	Remark
Material Issue: Green Products and Services				
Energy	302-1	Energy consumption within the organization	2.2 Energy and Resource Management	
	302-3	Energy intensity	2.2 Energy and Resource Management	
	302-4	Reduction of energy consumption	2.2 Energy and Resource Management	
Manage-ment Approach	103-2	The management approach and its components	Chapter 2 A Good Partner for Green Environment	
	103-3	Evaluation of the management approach	Chapter 2 A Good Partner for Green Environment	
Water	303-1	Water withdrawal by source	2.2 Energy and Resource Management	
Emissions	305-1	Direct (Scope 1) GHG emissions	2.2 Energy and Resource Management	
	305-2	Energy indirect (Scope 2) GHG emissions	2.2 Energy and Resource Management	
	305-4	GHG emissions intensity	2.2 Energy and Resource Management	

Disclosure Item		Description	Referenced Section	Remark
Effluents and Waste	306-2	Waste by type and disposal method	2.2 Energy and Resource Management	
	306-3	Significant spills		No relevant incidents occurred in 2019.
Environ-mental Compliance	307-1	Non-compliance with environmental laws and regulations	2.1 Commitment to the Environment and Legal Compliance	No relevant incidents occurred in 2019.
Material Issue: Hazardous Substance Management Sustainable Supplier Management				
Supplier Environ-mental Assessment	308-1	New suppliers that were screened using environmental criteria	2.3 Create Green Value	
			3.1 Sustainable Supplier Management	
Manage-ment Approach	103-2	The management approach and its components	Chapter 2 A Good Partner for Green Environment	
			Chapter 3 Making Progress Alongside A Good Partner	
	103-3	Evaluation of the management approach	Chapter 2 A Good Partner for Green Environment	
			Chapter 3 Making Progress Alongside A Good Partner	

GRI 400: Topic-specific Standards-- Social topics 2016

Disclosure Item		Description	Referenced Section	Remark
Material Issue: Employee Benefits				
Employ-ment	401-1	New employee hires and employee turnover	4.1 Employee Overview	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	4.3 Employee Benefits and Communications	
	401-3	Parental leave	4.3 Employee Benefits and Communications	

GRI 400: Topic-specific Standards-- Social topics 2016

Disclosure Item		Description	Referenced Section	Remark
Material Issue: Employee Benefits				
Manage-ment Approach	103-2	The management approach and its components	Chapter 4 A Good Partner in a Friendly and Healthy Workplace	
	103-3	Evaluation of the management approach	Chapter 4 A Good Partner in a Friendly and Healthy Workplace	
Material Issue: Occupational health and safety				
Disclosure on Occupational Health Manage-ment Approach	103-2	The management approach and its components	Chapter 4 A Good Partner in a Friendly and Healthy Workplace	
	103-3	Evaluation of the management approach	Chapter 4 A Good Partner in a Friendly and Healthy Workplace	
	403-1 (2018)	Occupational health and safety	4.2 Employee Safety and Health	
	403-2 (2018)	Hazard identification, risk assessment, and incident investigation	4.2 Employee Safety and Health	
	403-3 (2018)	Occupational health services	4.2 Employee Safety and Health	
	403-4 (2018)	Worker participation, consultation, and communication on occupational health and safety	4.2 Employee Safety and Health	
	403-5 (2018)	Worker training on occupational health and safety	4.2 Employee Safety and Health	
	403-6 (2018)	Promotion of worker health	4.2 Employee Safety and Health	
	403-7 (2018)	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	3.1 Supplier Sustainability Management	

Disclosure Item		Description	Referenced Section	Remark
Disclosure on Occupational Health and Safety Issues	403-8 (2018)	Workers covered by an occupational health and safety management system	4.2 Employee Safety and Health	
	403-9 (2018)	Work-related injuries	4.2 Employee Safety and Health	
	403-10 (2018)	Work-related ill health	4.2 Employee Safety and Health	No labor-hours have been lost due to an occupational disease over the years.
Material Issue: Talent Cultivation				
Training and Education	404-1	Average hours of training per year per employee	4.5 Talent Cultivation and Development	
	404-3	Percentage of employees receiving regular performance and career development reviews	4.5 Talent Cultivation and Development	In 2019, all employees are reviewed.
Manage-ment Approach	103-2	The management approach and its components	Chapter 4 A Good Partner in a Friendly and Healthy Workplace	
	103-3	Evaluation of the management approach	Chapter 4 A Good Partner in a Friendly and Healthy Workplace	
Diversity and equal opportunity	405-1	Diversity of governance bodies and employees	1.2 Ethical Management and Corporate Governance / 4.1 Employee Overview	
	405-2	Ratio of basic salary and remuneration of women to men	4.4 Compensation System	
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	4.3 Employee Benefits and Communications	
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor		Apacer do not use child labor.

GRI 400: Topic-specific Standards-- Social topics 2016

Disclosure Item		Description	Referenced Section	Remark
Material Issue: Communications and Giving Back to the Local Community				
Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	5.1 Local Participation	
	413-2	Operations with significant actual and potential negative impacts on local communities		Apacer's operations have no negative impact on local communities
Management Approach	103-2	The management approach and its components	Chapter 5 A Good Partner in a Livable and Synergistic Homeland	
	103-3	Evaluation of the management approach	Chapter 5 A Good Partner in a Livable and Synergistic Homeland	
Material Issue: Sustainable Supplier Management				
Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	3.1 Supplier Sustainability Management	
Management Approach	103-2	The management approach and its components	Chapter 3 Making Progress Alongside A Good Partner	
	103-3	Evaluation of the management approach	Chapter 3 Making Progress Alongside A Good Partner	

GRI 400: Topic-specific Standards-- Social topics 2016

Disclosure Item		Description	Referenced Section	Remark
Material Issue: Sustainable Supplier Management				
Public Policy	415-1	Political contributions		No political donation expenditures were made in 2019.
Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	3.1 Sustainable Supplier Management	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services		No violations of related laws and regulations in 2019
Marketing and Labeling	417-1	Requirements for product and service information and labeling	1.4 Products and Services	
	417-2	Incidents of non-compliance concerning product and service information and labeling		No violations of related laws and regulations in 2019
	417-3	Incidents of non-compliance concerning marketing communications		No violations of related laws and regulations in 2019
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data		No relevant incidents occurred in 2019
Socio-economic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area		No violations of related laws and regulations in 2019

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By Royal Charter

INDEPENDENT ASSURANCE OPINION STATEMENT

Apacer 2019 Corporate Social Responsibility Report

The British Standards Institution is independent to Apacer Technology Inc. (hereafter referred to as Apacer in this statement) and has no financial interest in the operation of Apacer other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of Apacer only for the purposes of assuring its statements relating to its corporate social responsibility (CSR), more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by Apacer. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to Apacer only.

Scope

The scope of engagement agreed upon with Apacer includes the followings:

1. The assurance scope is consistent with the description of Apacer Technology Inc. 2019 Corporate Social Responsibility Report.

2. The evaluation of the nature and extent of the Apacer's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000 Assurance Standard (2008) with 2018 Addendum assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the Apacer 2019 Corporate Social Responsibility Report provides a fair view of the Apacer CSR programmes and performances during 2019. The CSR report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the Apacer and the sample taken. We believe that the 2019 economic, social and environmental performance information are fairly represented. The CSR performance information disclosed in the report demonstrate Apacer's efforts recognized by its stakeholders.

Our work was carried out by a team of CSR report assurors in accordance with the AA1000AS (2008) with 2018 Addendum. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that Apacer's description of their approach to AA1000AS (2008) with 2018 Addendum and their self-declaration in accordance with GRI Standards: Core option were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

— a top level review of issues raised by external parties that could be relevant to Apacer's policies to provide a check on the appropriateness of statements made in the report.

— discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.

— 15 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.

— review of key organizational developments.

— review of the findings of internal audits.

— review of supporting evidence for claims made in the reports.

— an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

A detailed review against the Inclusivity, Materiality, Responsiveness and Impact of AA1000AP (2018) and GRI Standards is set out below:

Inclusivity

This report has reflected a fact that Apacer has continually sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for economic, social and environmental information in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the Apacer's inclusivity issues.

Materiality

Apacer publishes material topics that will substantively influence and impact the assessments, decisions, actions and performance of Apacer and its stakeholders. The sustainability information disclosed enables its stakeholders to make informed judgements about the Apacer's management and performance. In our professional opinion the report covers the Apacer's material issues.

Responsiveness

Apacer has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for Apacer is developed and continually provides the opportunity to further enhance Apacer's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the Apacer's responsiveness issues.

Impact

Apacer has Identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. Apacer has established processes to monitor, measure, evaluate and manage impacts that lead to more effective decision-making and results-based management within the organization. In our professional opinion the report covers the Apacer's impact issues.

GRI Sustainability Reporting Standards (GRI Standards)

Apacer provided us with their self-declaration in accordance with GRI Standards: Core option (For each material topic covered by a topic-specific GRI Standard, comply with all reporting requirements for at least one topic-specific disclosure). Based on our review, we confirm that social responsibility and sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported or omitted. In our professional opinion the self-declaration covers the Apacer's social responsibility and sustainability topics.

Assurance level

The moderate level assurance provided is in accordance with AA1000AS (2008) with 2018 Addendum in our review, as defined by the scope and methodology described in this statement.

Responsibility

The CSR report is the responsibility of the Apacer's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of Lead auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan

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