



# Apacer

Technology Inc.

## 2022

Sustainability Report

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# About the Report

## ● Framework

This report adopts the "GRI Standards 2021" sustainability reporting standards published by the Global Sustainability Standards Board (GSSB) and is compiled in accordance with its disclosure requirements. Through internationally recognized reporting framework, Apacer fully discloses ESG issues of concern to stakeholders.

## ● Editorial Principles

With domestic and internal sustainability trends as reference, Apacer identifies stakeholders' issues of concern through materiality analyses, which form core disclosures of this report. In addition, the compilation of the report follows the eight reporting principles required by GRI Standards and aligns with the materiality, inclusivity, responsiveness, and impact principles of the AA1000 Accountability Principle Standards (2018 ver.).

## ● Scope

The disclosure period of this report is 2022/01/01 - 2022/12/31, and this is the 11th Sustainability Report published by Apacer. Apacer is not an enterprise subject to Financial Supervisory Commission, Republic of China (Taiwan) disclosure regulations, but follows the Taiwan Stock Exchange Corporation's "Rules Governing the Preparation and Filing of Corporate Environment, Social and Corporate Governance (ESG) Information Disclosure" and "Correction Application of Corporate Environment, Social and Corporate Governance (ESG) Information Disclosure" in compiling this sustainability report. The previous sustainability report was published in August 2022. The Sustainability Report is published annually and uploaded on to the corporate website, periodically disclosing information on Apacer's sustainability operations. The scope of disclosure of the report focuses mainly on Apacer's headquarters and factories in Taiwan as well as its subsidiary UDInfo; excluding the overseas operation sites: Apacer Electronic (Shanghai) Co., Ltd., Apacer Memory America, Inc. (USA), Apacer Technology B.V. (Europe), Apacer Technology Corp. (Japan), Apacer Technologies Pvt Ltd. (India), etc. (Apacer's financial statement includes all aforementioned entities).

## ● Data Quality

### - Internal management

To ensure the transparency and credibility of disclosed information, we enhanced performance comparability as well as the reporting materiality. This report is compiled by the Sustainable Development Committee and approved by the General Manager. In the future, we plan to annually report the contents of our sustainability report to the Board of Directors.

### - Third-party verification

An independent and credible third party- British Standards Institution (BSI) - is entrusted to conduct the report verification in accordance with AA1000AS v3 Assurance Standards (2008) and the annexes of the 2018 version. The report meets the standards of a Moderate Level assurance and the GRI Standards. For the independent third-party verification statement from BSI, please refer to the Independent Assurance Statement in the appendix.

## Contact Us

Apacer aims to be "Great Partners" to stakeholders. Your feedback is our greatest form of motivation for improvement. If you have any issues or concerns regarding sustainable operations, please feel free to contact us :

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Download the Sustainability Report :

<https://www.apacer.com/en/normaldownload/download-report>

# Words from the Chairman

2022 was impacted by many events. From the Russia-Ukraine war in the first quarter affecting global supply chain and intensifying the geo-political risks, to the pandemic outbreak in Taiwan, followed by weak consumer demand due to inflation; each occurrence seemed to have a butterfly effect, causing ripples on different aspects of business operations. Being in the ever-changing computer memory industry, Apacer has always been alert to market changes and adopted flexible strategic adjustments in order to rapidly adapt to environment changes and market fluctuations. With valuable experiences learnt from the past, we were able to overcome challenges, and achieved NT\$8.8 billion in revenue with an EPS of NT\$5.23. It is evident that continuous promotion of our three main operating strategies - Focus on key fields, deployment of future technologies, and digital transformation in operations; as well as establishment of strategic alliances will generate greater business performance!

In ensuring that we achieve both business operation goals and social missions, strategic alliance has become a key operation goal we actively pursue. In 2022, Apacer engaged in a share-swap with UDInfo, which is also premium brand for memory modules. It is hoped that through our close exchanges, we are able to strengthen our production lines in different market fields, develop different customer groups, and acquire an advantage in terms of purchase scale. Moreover, after over six months of discussion, we've also found a suitable private backer - Acer Incorporated. Apart from expanding our production lines for oversea export, we seek benefits for our partners in purchasing, market development, and brand image.

Regarding ESG performance, apart from the outstanding corporate governance, we are committed to energy-saving measures, as well as waste and carbon emission reduction. We conduct supplier engagement in hopes that they can also abide by ESG actions. Furthermore, in alignment with global carbon reduction trends, we are seeking ISO 14064 verification through our scope 3 inventory project, and by the end of 2022, we were able to complete the inventory review for all internal staff commute, with acquisition of third-party verification scheduled for 2024. In terms of social care, not only did we provide pandemic insurance for all the employees to help them get through tough times, we also promoted a 4000-step daily walking movement which has been responded to by more than half of the employees in our business group as of the end of 2022. To expand our influence in the communities, Apacer donated NT\$150,000 worth of goods to three charity organizations for events or charity sales. We also hosted two events - second-hand toy collection and second-hand goods exchange, helping find new uses for used or idled goods, reducing generated waste.

In our way toward sustainable operations, Apacer insists on its core value: "Becoming Better Partners". In addition to the enhancing our business performance, we will actively adopt ESG actions ensure the interests of all stakeholders. By working hand-in-hand with stakeholders, we aim to construct and develop sustainable and environmentally friendly environment.



Chairman of Apacer



# SSD

(Sustainability Strategy Development)

## ● Sustainability Strategy Roadmap

Apacer has transformed its brand core values from "Trust" and "Innovation" into "Becoming Better Partners: Deliver on our promises, strive for constant improvement, and advance with our partners," which has become the center of Apacer's long-term operation strategies, as we work toward the United Nations Sustainable Development Goals (SDGs).



### Deliver on Our Promise

With transparency and integrity as the cornerstone, Apacer pursues stable enterprise operations, responds to local needs, and passes down the culture of Taiwan.

### United Nations Sustainable Development Goals

#### Target

8.2

11.6

16.5 / 16.6

#### Material Issues

R&D Innovation / Economic Performance / Operational Risk Management / Information Security

Environmental Regulation Compliance

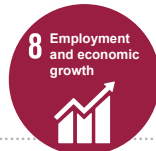
Corporate Governance

#### Apacer's Commitment

With digital storage as the core, continue to cultivate and recruit talent, transform R&D of innovative technology into business profit, drive growth momentum, and uphold the sustainable business operations.

To continue to strengthen corporate governance, enhance information transparency, and protect the rights and benefits of shareholders and stakeholders.

To make profit for the next five years, and continue to give back to the local community, committing to the establishment of a prosperous environment.



## Constant Improvement

Apacer always complies with the laws and regulations and constantly reduces the operational impacts on the environment as we advances towards the path of green enterprise.

### United Nations Sustainable Development Goals

Target	6.3	12.2	13.3
<b>Material Issues</b>	Environmental Regulation Compliance Green Product Design	Hazardous Substance Management / Raw Material Management / Sustainability Management of Supply Chain	Environmental Regulation Compliance / Green Product Design / Energy Management / GHG Management
<b>Apacer's Commitment</b>	To refine the Company's manufacturing processes, reduce power consumption, reinforce the products' energy-saving design, scale down environmental pollution during production, and set up smart green factories.	To comply with RBA regulations and implement HSF regulations among suppliers. In addition, hold supplier meetings every year to facilitate green smart management.	To promote green product design and implement internal environmental education training within the enterprise, raising environmental protection awareness within the Company's value chain and the establishment of smart green factories.



## Advance with Our Partners

Apacer offers friendly workplace, realizes sustainability management of supply chain, and progresses together with our business partners.

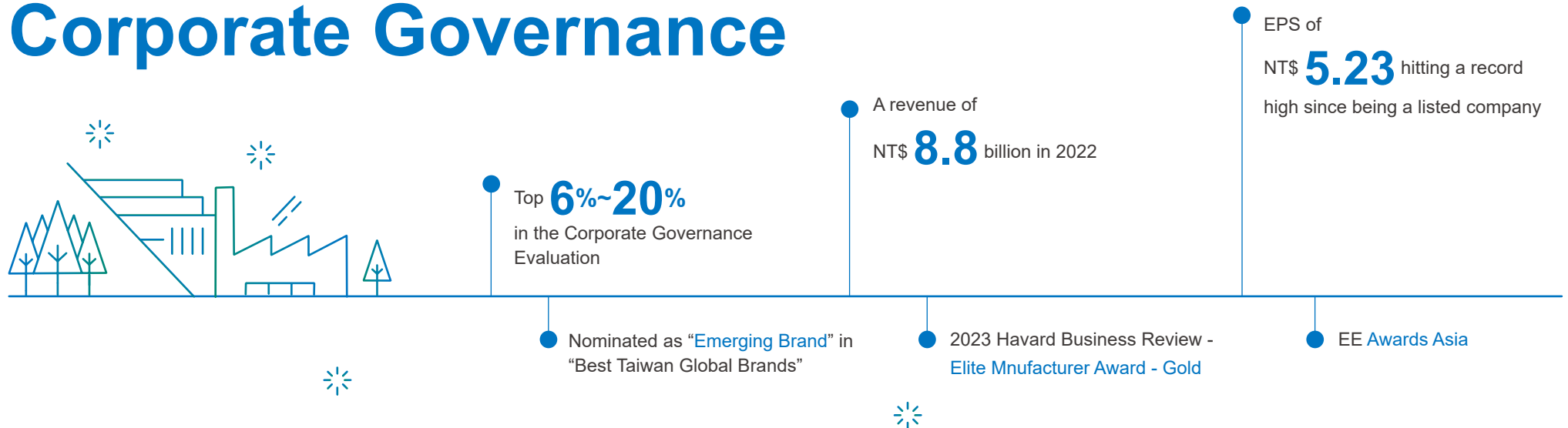
### United Nations Sustainable Development Goals

Target	4.4	5.c.	17.16
<b>Material Issues</b>	Talent Cultivation	Talent Attraction and Retention	Sustainability Management of Supply chain / Customer Relationship Management
<b>Apacer's Commitment</b>	<ul style="list-style-type: none"> <li>- To construct a safe workplace in conformity with relevant occupational safety laws and regulations, and obtain compliance certification, establishing a trustworthy employer brand.</li> <li>- Based on the PDDRO (plan, design, do, review and outcome) loop, review training and development plans, establishing a trustworthy employer brand.</li> </ul>	To develop a A* EAPs Employee Assistance Program that achieves A* in health, family life, A* team synergy by combining CSR & RBA with food, clothing, housing, transportation, education, entertainment, and sports, thus becoming a trustworthy employer.	To update customer service flow, build a global after-sales service system, and optimize product customization services, becoming a partner that co-creates value with clients.

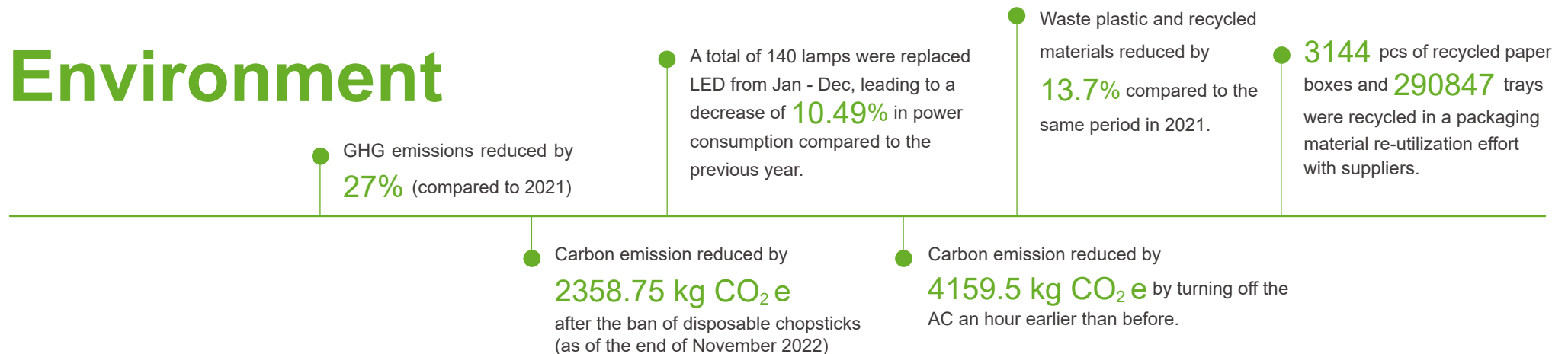


● Key Sustainability performance in 2022

# Economics and Corporate Governance



# Environment



# Social

64% match rate between the double-track talents in management positions and professional positions.

Employee turnover rate: 1.7%

Purchase 20kg of toxic-free coffee beans, assisting coffee farmers and charity organizations.



P50 ↑ percentile according to external remuneration survey reports.

Donation of electronic products (for events or charity sales) to three charity organizations.

Second-hand good exchange activities for employees; donation of second-hand toys to Toy Banks.

# Supplier Management

Customer satisfaction score of 88.86 based on questionnaires; with improvement measures implemented.

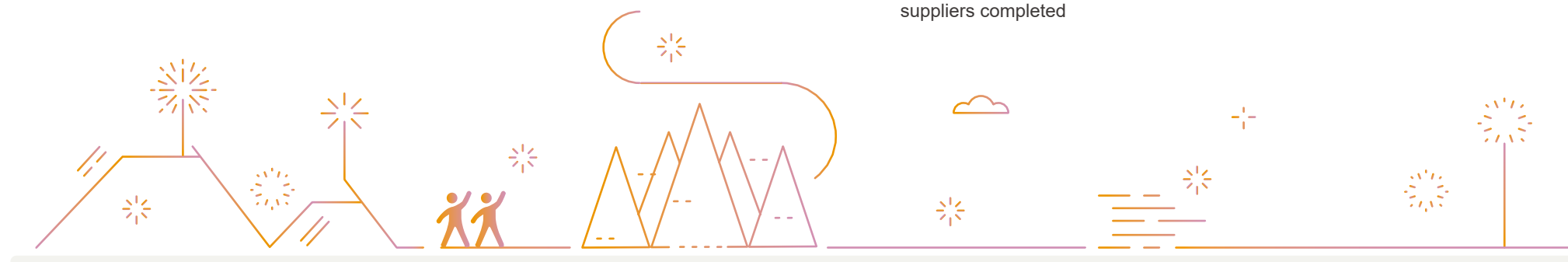
Becoming Better Partner survey for suppliers completed; 97% surveys were collected and the average score was 92.5.

Completed RBA and ISO 9001 audit.

Coached suppliers on sustainable management.



One GHG inventory session for suppliers completed



Please refer to the relevant chapters and sections for the attainment status of each of the goals.

## ● Internal Sustainable Management Measures

### Sustainable Development Committee - Organization Structure

With sustainability philosophy incorporated into the Company's business operations, Apacer has set up a Sustainable Development Committee responsible for the promotion of sustainability-related affairs, with the Chairman of Board as the Committee Chief and the General Manager as the Secretary General of the Committee. In conformity with Apacer's development visions and goals, ESG policies have been established together with the setting of goals, execution strategies and adopted management systems.

The Sustainable Development Committee consists of two teams, one of which is the ESG Implementation Team, commanding five work groups, namely "Corporate Governance", "Employee Care", "Customer and Supplier Care", "Environmental Care," and "Community Care". The managers of relevant departments serve as the heads of the groups, who are responsible for the formulation of action plans and action teams in accordance with short, mid and long-term goals of each group, integrating sustainable development into the daily business operations. The heads of the "Risk Management Team" comprises managers of the six centers and three divisions, who are responsible for the review of various risks faced by the enterprise, management and supervision, as well as proposals of enhancement plans.

The Secretariat is responsible for the convention of independent review meetings of both teams every quarter, with the presence of the Chief and Secretary General, to ensure the actual effectiveness of the various tasks. In addition, by the end of every year, all information - including task status, project effectiveness and annual performance, shall be reported to the Board of Directors' meeting, ensuring information equivalence of policies and effectiveness among the board members.

### Sustainable Development Committee - Organization Structure



## ● Apacer's Sustainable Development History

2015

CSR Committee established with organizational division of labor to promote corporate social responsibility; ISO 14001, QC080000 and ISO 50001 certificates obtained.

2016

Apacer One-day Volunteer activity; new version of ISO 14001:2015 certificate obtained.

2017

Joined the Responsible Business Alliance (RBA) and obtained the Silver Label accreditation; the 2016 CSR Report won the TCSA Taiwan Sustainability Report Award - Silver Award for the first time.

2018

Continued to respond to the UN Sustainable Development Goals (SDGs) with strategic actions.

2019

Set sustainability development strategies integrated with the brand's core value "Being Best Partner".

2020

ISO 45001 certificate; and the RBA Silver Level Accreditation.

2021

In response to international trends, the CSR Committee was reorganized as the Sustainable Development Committee, including cross-departmental collaborations between more units in order to increase operational performance and impact scope.

2022

RBA Silver Accreditation and various domestic and international awards obtained; enterprise mascot APA launched; ISO 14064:2018 project plan embarked.

2023

2022 Sustainability Report published based on GRI 2021 Standards.

# Stakeholder Engagement

Referring to the industry characteristics and operational status quo, as well as adopting the five major principles of the AA1000 Stakeholder Engagement Standard to rank the stakeholders, seven types of key stakeholders of Apacer are identified: Employees, shareholders/investors, suppliers, customers, media, government institutions, and local community groups.

## Stakeholder communication channels and issues of discussion

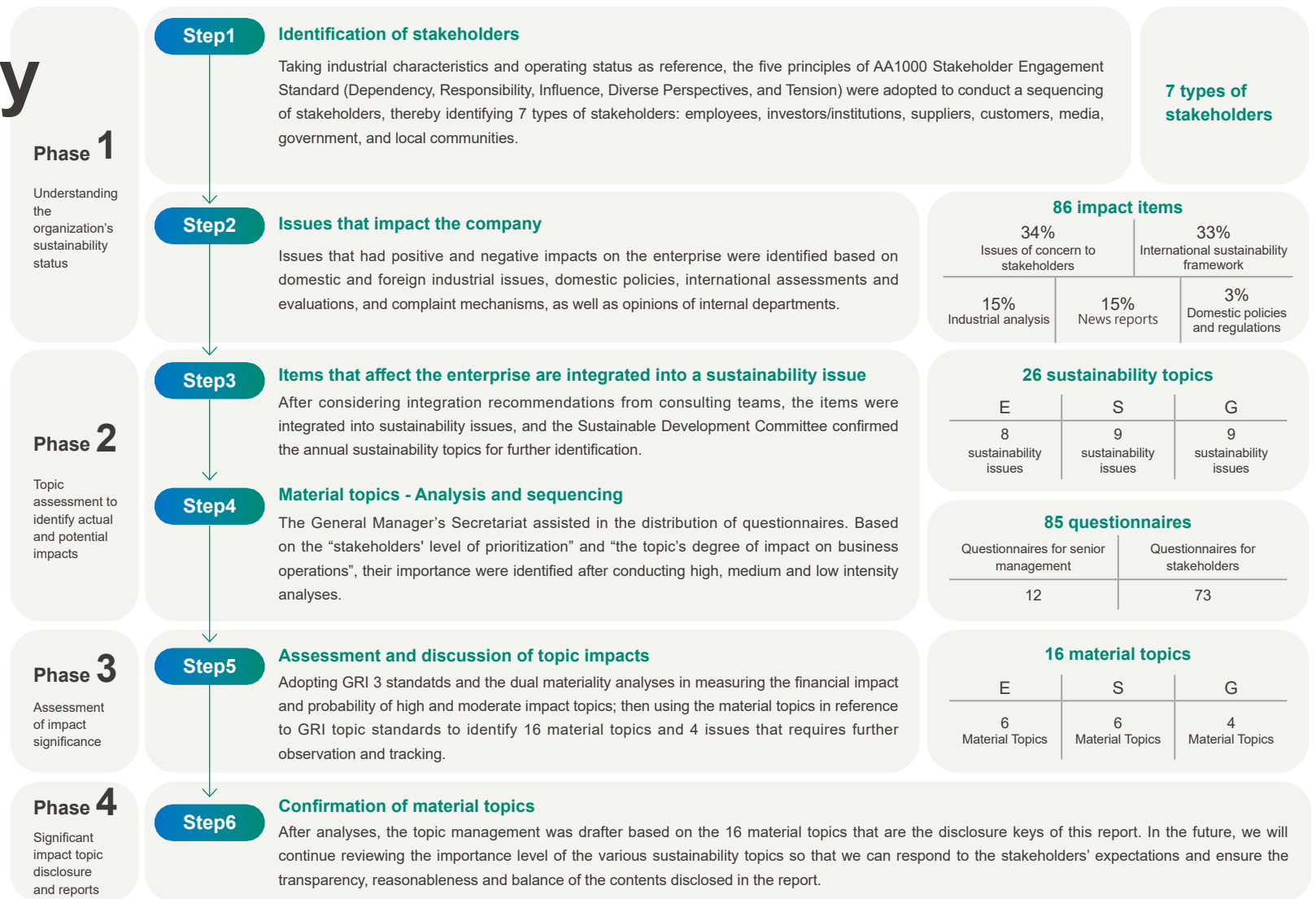
Stakeholder	Importance and significance for Apacer	Engagement Achievements	Communication Channels and Frequency	Focus of Material Topics	Apacer's Response
<b>Employees</b>	<p>Employees have always been one of our key stakeholders. Employee creativity and stable retention are foundations for Apacer's leading position within the industry.</p> <ul style="list-style-type: none"> <li>- Employee annual turnover rate below 3%.</li> <li>- Scoring above 70 points in the survey on employees' sense of identity.</li> </ul>	<ul style="list-style-type: none"> <li>- Employee turnover rate of 1.7%</li> <li>- P50 ↑ percentile according to external remuneration survey reports</li> <li>- 60% match rate for dual-track talents</li> <li>- 96% retention rate for dual-track talents</li> <li>- Survey on employees' sense of identity scoring over 77 points</li> <li>- A total of 3 occupational hazard incidents.</li> <li>- Obtained Sport Enterprise Certification</li> </ul>	<ul style="list-style-type: none"> <li>- Regular convention of review meetings with the Sustainable Development Committee, Executives Management Committee, Employee Welfare Committee, and Occupational Safety and Health Management Committee.</li> <li>- Promotion of relevant knowledge and activities through the enterprise's intranet on an irregular basis</li> <li>- Internal complaint channels for the employees</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental Regulation Compliance</li> <li>- Talent attraction and retention</li> <li>- Economic performance</li> <li>- Operational risk management</li> </ul>	<ul style="list-style-type: none"> <li>- Continuous promotion of A+ EAPs Employee Assistance Program</li> <li>- Preparation for the establishment of Apacer College and the development of dual-track talent system</li> </ul>
<b>Customers</b>	<p>Based on the clients' demands, we innovate and create new products and services, offering the best product experiences. Customers' environmental and social requirements motivate Apacer to continuously set regulations.</p> <ul style="list-style-type: none"> <li>- Enhance market competitiveness</li> <li>- Customer satisfaction level kept at above 85%</li> </ul>	<ul style="list-style-type: none"> <li>- Completed customer satisfaction survey, with a satisfaction level of 88.86%</li> <li>- Satisfaction level survey completed on 79 major customers</li> </ul>	<ul style="list-style-type: none"> <li>- Customer management system: CRM</li> <li>- After-sales service system: eRMA</li> <li>- Annual customer satisfaction level survey</li> <li>- Customer service hotline and online inquiry letters</li> </ul>	<ul style="list-style-type: none"> <li>- Corporate Governance</li> <li>- Economic Performance</li> <li>- Environmental Regulation Compliance</li> <li>- Operational Risk Management</li> </ul>	<ul style="list-style-type: none"> <li>- Deficiencies addressed based on the customer satisfaction survey.</li> <li>- Based on the surveys conducted by the customer on the suppliers, Apacer's competitiveness has been raised. This includes plans such as the acquirement of ISO 14064-1:2018 organizational GHG inventory management system verification.</li> </ul>
<b>Investors/Institutions</b>	<p>Capital investment marks the trust and approval of investors/institutions of the Company, allowing Apacer to continue to innovate and advance with sustainable operations.</p> <ul style="list-style-type: none"> <li>- Fortification of relationships with the investors/institutions.</li> </ul>	<ul style="list-style-type: none"> <li>- Two investor conferences hosted</li> <li>- One shareholders meeting hosted</li> <li>- Four major event press releases</li> <li>- 33 calls from shareholders in 2022</li> </ul>	<ul style="list-style-type: none"> <li>- Investor conference</li> <li>- Press release</li> <li>- Apacer's official website</li> <li>- Investor relation contact window</li> <li>- Market Observation Post System(MOPS)</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental regulation compliance</li> <li>- R&amp;D Innovation</li> <li>- Economic performance</li> </ul>	<ul style="list-style-type: none"> <li>- Information transparency achieved through open activities, such as shareholders meetings and institutional investor conferences.</li> <li>- Enhanced information disclosure in both Mandarin and English on the official website</li> <li>- Improvement investors' understanding of the Company's business operations by answering shareholders' inquiry calls.</li> </ul>
<b>Suppliers</b>	<p>Suppliers are crucial partners in pursuing the accomplishment of green product production. Together, we learn about sustainability topics through collaborations, communications, coaching, and audits.</p> <ul style="list-style-type: none"> <li>- Becoming Better Partner survey for the suppliers scoring more than 85 points</li> <li>- Enhancement of sustainability awareness in the Company's supply chain. The regular assessment frequency is formulated according to the supplier management method, and the assessment rate is 100%.</li> </ul>	<ul style="list-style-type: none"> <li>- Scored 92.4% on the Becoming Better Partner survey for suppliers.</li> <li>- 100% of assessment rate in suppliers' regular assessments.</li> </ul>	<ul style="list-style-type: none"> <li>- APG (Apacer Green Product Web System) supplier platform</li> <li>- Annual supplier conferences</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental regulation compliance</li> <li>- Raw Material Management</li> <li>- Operational Risk Management</li> <li>- Talent cultivation</li> </ul>	<ul style="list-style-type: none"> <li>- Supplier evaluation (with RBA audit), supplier conferences and supplier assistances</li> <li>- Compliance with ISO 9001 and QC 080000</li> </ul>
<b>Media</b>	<p>Media's reports influence third-parties' views of Apacer's image and opinion, so we enhance the company's brand image through public relation management and media communication.</p> <ul style="list-style-type: none"> <li>- Brand image enhancement</li> </ul>	<ul style="list-style-type: none"> <li>- 23 press releases this year, covering operations, events, and product press releases</li> <li>- 3 exclusive interviews with senior management</li> <li>- No negative coverages in 2022</li> </ul>	<ul style="list-style-type: none"> <li>- Irregular meal gathering with the media press</li> <li>- Irregular media interviews</li> </ul>	<ul style="list-style-type: none"> <li>- Corporate governance</li> </ul>	<ul style="list-style-type: none"> <li>- Continuous provision of brand/product information</li> <li>- Continuous maintenance of media relations</li> </ul>

Stakeholder	Importance and significance for Apacer	Engagement Achievements	Communication Channels and Frequency	Focus of Material Topics	Apacer's Response
Government	Global sustainable trends and government regulations are always our focus so that we can plan forward-looking corporate sustainable blueprints and strategies. - Compliance assurance	- No major violations	- Communication and cooperation with the government and relevant units		- Corporate information disclosed on the Market Observation Post System (MOPS) and the official website based on importance. - Internal promotion of law and regulation compliance
Local communities	Apart from the pursuit of profits, Apacer is also committed to giving back to local communities so as to carry out the brand's core value of "Becoming Better Partner". - Enhancement of communication with communities.	- Material donations of about NT\$ 150,000 to three local communities, benefiting more than 300 people; cumulative donation of over 557 receipts over a period of 11 months. - Adopted 20 toxin-free coffee trees (NT\$ 60,000), making 330 boxes of drip bag coffee.	- Local community stations	Operational risk management	Continuous promotion of local care projects and establishment of long-term collaboration relationship with local communities in order to expand the social impact.

# Materiality Analysis

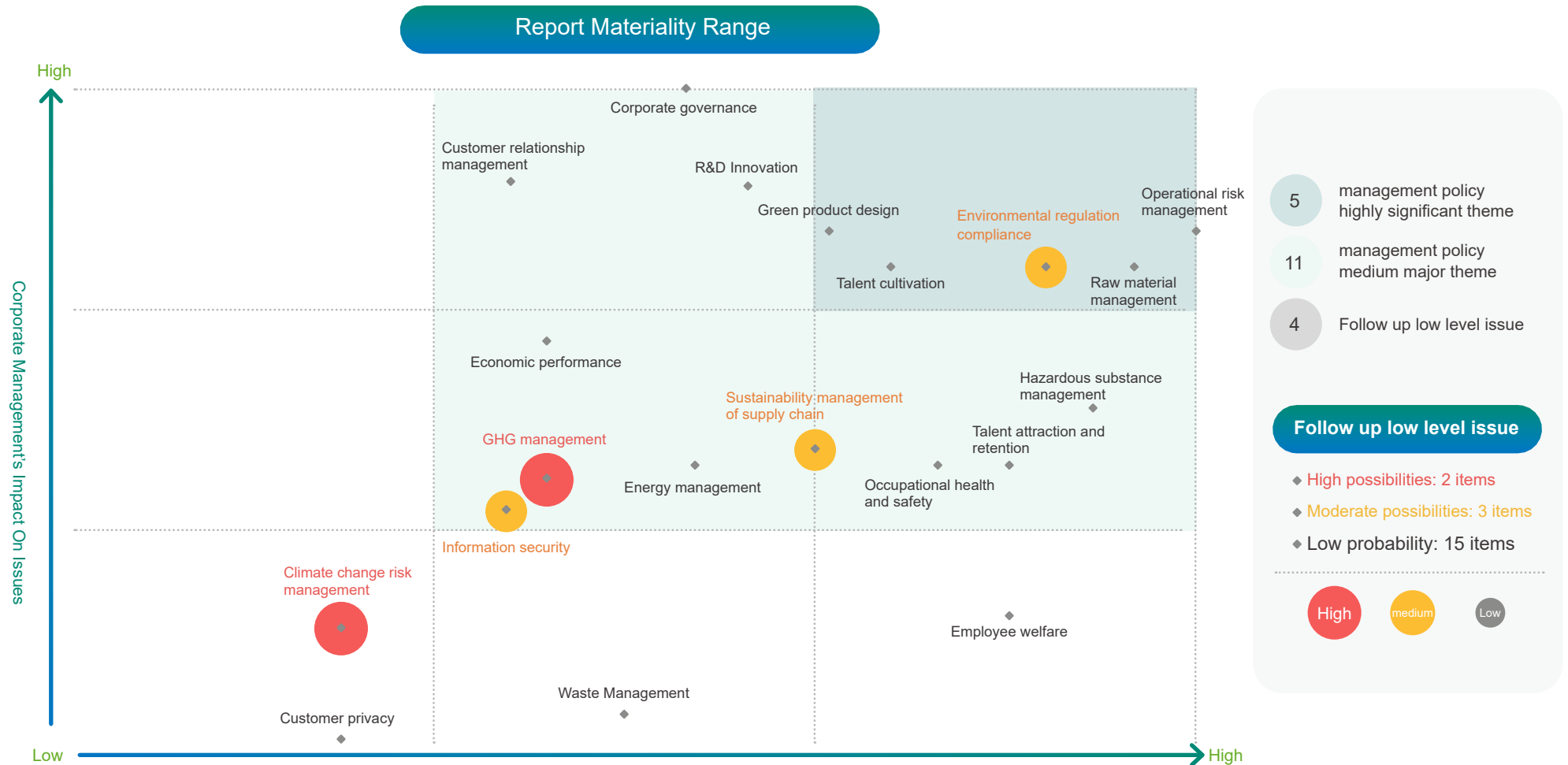
## ● Materiality analysis method and process

To make information disclosure more in line with the expectations of stakeholders, stakeholder identification was conducted first with stakeholder questionnaires in 2022. Centered on the Sustainable Development Committee, members of the interview committee had conducted in-depth analysis and inspections which served as the basis for the report compilation. This allowed stakeholders to have a deeper and clearer understanding of Apacer's sustainable actions in corporate governance, environmental protection and social contribution.



## ● Material analysis matrix

This year, through questionnaire-surveys, we were able to learn the stakeholders' and management's attention level on the sustainability topics and climate change issues as well as the impact level of the topics on the enterprise in the materiality analysis. Based on this, we identified 16 material topics that are the key of disclosure in this year's report.





## List of material topics

Aspect	Material Topics	GRI topic standards (notes)	Importance for Apacer	Relevant sections	Page
Economic	Operational Risk Management	Self-defined material topic	Business operation risks my derive from external influence or internal factors. Reviewing expected risks and taking appropriate response measures is the key to achieving sustainable operations.	1.2 Integrity management and corporate governance	P.34
	R&D Innovation	GRI 201 Economic performance	Building excellent products and developing value-added technologies through R&D innovation is the company's competitiveness, and is the key to obtaining greater market share.	1.4 R&D innovation	P.22
	Corporate governance	Self-defined material topics	Insistence in legal compliance and insisting on open and transparent information disclosure, being responsible for all stakeholders through business operations that emphasize integrity.	1.2 Integrity management and corporate governance	P.22
	Information security	Self-defined material topics	Information vulnerability will not only affect the Company's operations but also customers and suppliers, and even impair the shareholders' rights and interests, leading to major losses in terms of finance and the Company's reputation.	1.2 Integrity management and corporate governance	P.30
	Sustainability management of supply chain	GRI 414 Social assessments of suppliers	Apart from keeping a stable supply chain, the delivery quality and schedule should also be ensured, On-time delivery service is key in achieving operational profitability.	3.1 Sustainable management of suppliers	P.40
	Economic Performance	GRI 201 Financial performance	Only through continuous excellent financial performance that the Company can achieve the goal of sustainable operations, continuing to create value for shareholders and stakeholders alike.	1.3 Diversified products and operational performance	P.51
Environment	Environmental regulation compliance	Self-defined material topics	Compliance of environmental regulations can reduce the negative impacts of the production process on the environment. Apart from reducing operating risks, the Company can also respond to international trends in making earth a more sustainable environment.	2.1 Environmental commitment and legal compliance	P.56
	Green Product Design	GRI 302 Energy	From initial design to manufacturing, going green is a concept implemented across the Company's production process in order to continuously produce eco-friendly products, aiming to create a green industrial chain.	2.4 Green products	P.51
	Hazardous substance management	Self-defined material topics	The Company places heavy emphasis on management of hazardous substances. From supplier management, to warehousing, production line operation to waste processing, the company implements stringent procedures to ensure safety of staff and prevent environment pollution.	3.1 Sustainable management of suppliers	P.51
	Raw Material Management	GRI 301 Materials	The ratio of renewable raw materials and the recyclability of packaging materials are increased in working toward a circular economy.	2.4 Green products	P.51
	Energy management	GRI 302 Energy	Depending on the level of economic development, energy will decrease. The increase of circular benefits or the usage of renewable energy will affect the enterprises' performance in sustainability.	2.2 Climate change risk management	P.51
	GHG management	GRI 305 Emissions	Excessive GHG emission has led to global warming and climate change, which will cause changes in the environment and potentially in the supply chain, operation locations, etc.	2.2 Climate change risk management	P.51
Social	Talent cultivation	GRI 404 Training and education	As excellent talents can drive business growth, it is imperative to motivate colleagues to stay hungry and stay foolish, driving Apacer's competitiveness in the future.	4.4 Talent cultivation and remuneration system	P.79
	Talent attraction and retention	GRI 401 Employment	Comprehensive plans are launched to retain talents, ensuring that the successor teams can take over at any time and maintain the enterprise's long-term operations.	4.3 Employee welfare and communication	P.76
	Occupational health and safety	GRI 403 Occupational safety and health	Abiding by the law, we offer safe and healthy work environments and conduct periodic inspections and improvements. Only a safe workplace for the employees can be beneficial for the operations.	4.2 Employee safety and health	P.89
	Customer relationship management	GRI 416 Customer health and safety	"Delivering on Our Promise, Constant Improvement, Mutually Beneficial" is Apacer's brand core value, extending by the core value of "Becoming Better Partners" in order to provide products and services that satisfy the customers' needs.	3.2 Customer relationship management	P.79

Notes: For details regarding GRI standards for topic standards, please refer to Appendix 1. GRI Standards Cross-reference Table

## ● Changes in material topics

Material topics	2022 Importance	2021 Importance	Change in order	Reason of change	Response Page
<b>Operational risk management</b>	Highly material topic	Moderate material topic	Ascending ↑	Being a highly concerned issues of the overall stakeholders, a pre-planning of the strategic layout has been conducted in response to international industrial trends in order to effectively guarantee business profitability.	P.40
<b>Raw material management</b>	Highly material topic	Moderate material topic	Ascending ↑	Being a highly concerned issues of the overall stakeholders, an efficient upstream and downstream management of the raw materials has been conducted in order to automatically respond to the international trends of sustainability framework.	P.76
<b>Green product design</b>	Highly material topic	Moderate material topic	Ascending ↑	Responding to international sustainability trends, Apacer has disclosed various resource management directions in an integrated way from the perspective of product value chain; it has also designed and optimized products based on this principle in order to enhance brand competitiveness.	P.51
<b>Occupational health and safety</b>	Highly material topic	Moderate material topic	Ascending ↑	This topic was an issue of high concern in 2020, which means that the topic of "occupational health and safety" has always been a great concern for the stakeholders.	P.42
<b>Talent cultivation</b>	Highly material topic	Low material topic	Ascending ↑	Responding to the trends of international sustainability framework and being a highly concerned issues of the overall stakeholders, Apacer has effectively enhance talent quality and responded to the development needs of the enterprise.	P.56
<b>Corporate governance</b>	Moderate material topic	Low material topic	Ascending ↑	It is an issue of high concern for Apacer management. Responding to the trends of international sustainability framework, transparent management system and policies can effectively enhance operation performance.	P.45
<b>Information security</b>	Moderate material topic	Low material topic	Ascending ↑	Responding to the increase of global information security risks, it is an industrial issue in which Apacer should raise concern and take corresponding measures in order to ensure business operation secrets.	P.79
<b>Sustainability management of supply chain</b>	Moderate material topic	Low material topic	Ascending ↑	Responding to the trends of international sustainability framework, Apacer has been very proactive in the implementation of supply chain management mechanism which can stabilize operation performance and reduce future operation risks.	P.63
<b>Energy management</b>	Moderate material topic	Low material topic	Ascending ↑	Effective management measures can increase energy efficiency, which can respond to the international trends of sustainability framework, making it a highly concerned issues of the overall stakeholders.	P.63
<b>GHG management</b>	Moderate material topic	Low material topic	Ascending ↑	Under the global trend of implementing a sustainability framework, this topic is most likely to impact Apacer. Thus, relevant measures and goals have been taken proactively to effectively reduce operation costs and increase product competitiveness.	P.101
<b>Customer relationship management</b>	Moderate material topic	Low material topic	Ascending ↑	Through the in-depth analysis of customers and products as well as service optimization, Apacer has gained obtain advantage by increasing customer satisfaction and business competitiveness.	P.101
<b>R&amp;D Innovation</b>	Moderate material topic	Highly material topic	Ascending ↑	Although the stakeholders' attention has declined, it is still an issue of high concern for the management to maintain business competitiveness.	P.101
<b>Occupational health and safety</b>	Moderate material topic	Highly material topic	Descending ↓	Although the stakeholders' attention has declined, it is still an issue of concern within the international sustainability framework.	P.101
<b>Employee welfare</b>	Low material topic	Moderate material topic	Descending ↓	Although the stakeholders' attention has declined, a low degree of attention shall be maintained. Welfare policies better than regulations can keep business operations stable.	P.101

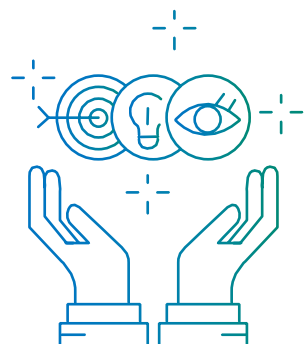


## Material topic boundary

After materiality analysis and identification of the various material topics together, with the data compilation against GRI topics, Apacer's management of the material topics in association with the economic, environmental, and social impacts is explained. We have defined the boundaries of the information within and outside the organization to ensure the transparency and integrity of the data disclosure.

Notes: Symbols are used to indicate the impact relationship of the organization's business behaviors on the material topics:

- ▲ indicates "causing" the impact(s): impact(s) caused due to the organization's own activities.
- indicates "contributing to" the impact(s): the activities of one organization cause, induce, or push for another entity to cause the impact(s).
- indicates "directly linked to": one organization does not cause or induce the negative impact(s), yet its operations, products, or services may probably lead to the negative impact(s) due to its business relations.



Category	Material topics	Impact and business relations (note)					Stakeholders impacted by the topic	Unit(s) responsible for topic impact management	Relevant sections
		R&D and improvements	Raw materials purchase	Manufacturing and production	Product sales	After-sales service			
Economic	Operational Risk Management	●	●	●	●	●	Employees, customers, suppliers, and investors/legal persons	Sustainable Development Committee	1.2 Integrity management and corporate governance
	R&D Innovation	▲	▲	▲	▲	▲	Employees and customers	RD & Technical Center	1.4 R&D Innovation
	Corporate governance	●	●	●	●	●	Employees, customers, and investors/legal persons	Sustainable Development Committee	1.2 Integrity management and corporate governance
	Information security	■		■			Employees, customers, and suppliers	Information Service Department	1.2 Integrity management and corporate governance
	Sustainability management of supply chain		●	■	■		Employees, customers, and suppliers	Purchasing Division	3.1 Sustainable management of suppliers
	Economic Performance	●	●	▲	▲	■	Employees and investors/legal persons	Operation Management Committee	1.3 Diversified products and operational performance
Environment	Raw Material Management			●	●	●	Customers and suppliers	Purchasing Division /Manufacturing & Quality Center	2.4 Green products
	Green Product Design	■	■	■	●	●	Customers and suppliers	R&D Division	2.4 Green products
	Compliance with environmental laws and regulations			▲	▲		Employees and customers	Manufacturing & Quality Center	2.1 Environmental commitment and legal compliance
	Energy management		●	●	●		Employees, customers, and suppliers	Sustainable Development Committee	2.2 Climate change risk management
	GHG management		●	●	●	●	Employees, customers, and suppliers	Sustainable Development Committee	2.2 Climate change risk management
	Hazardous substance management		●	●	●		Customers and suppliers	Manufacturing & Quality Center	3.1 Sustainable management of suppliers
Social	Talent cultivation	▲		▲	▲		Employees	Administration Management Division	4.4 Talent cultivation and remuneration system
	Talent attraction and retention	▲		▲	▲		Employees	Administration Management Division	4.3 Employee welfare and communication
	Occupational health and safety	▲		▲	▲		Employees	Administration Management Division	4.2 Employee safety and health
	Customer relationship management	■		■	●	■	Customers	Sales & Marketing Center	3.2 Customer relationship management

# Apacer's major events in 2022



## ● Expanding the group's overall operating synergy with UD Info

In June 2022, after being approved by the Board of Directors' meeting, a strategic alliance with UD INFO CORP (hereinafter referred to as UD Info), a leading brand of industrial control storage devices was formed to enhance market competitiveness and expand the overall operational synergy of the group.

In this strategic alliance, Apacer incorporated UD Info as its subsidiary through a stock-for-stock approach. It consisted of Apacer's new issuance of 9,863,920 new shares (accounting for 8.83% of Apacer's 111,688,266 issued shares after the new share issuance) for the 4,931,960 shares (accounting for 68.54% of UD Info's 7,196,180 issued shares) of UD Info's main operation team and its major shareholder, Phison Electronics Corporation (8299). The stock-for-stock ratio is 1:UD Info's common stock to 2:Apacer's common stocks.

Both enterprises have their strengths in the applications for customer end. This will benefit the development of memory sales operations, fortifying the expansion to overseas niche markets, and cultivating the existing application field, fueling up sustainable operation forces.

## ● Building a strategic alliance - Acer

Apacer announced the launching of a strategic alliance with Acer Incorporated (2353) through private placement. Acer subscribed for 11,000,000 private placement shares of Apacer at NT\$33 per share. Both parties agreed to use November 3rd as the base date for pricing. Acer shall obtain 8.97% of the shares after the capital increase and must hold them in possession for three years. Chia-Kun Chang, General Manager of Apacer, indicated that in the face of an industrial environment with rapid changes, the strategic alliance would integrate the resources of both parties, allowing them to obtain advantages in purchase scale and focus on the global sales channels. This would facilitate both companies to achieve international expansion in niche markets and enhance both competitive advantages, which would further fortify Apacer's market share in the business channels.

Apart from the three major business momentums of Apacer - focusing on key areas, laying out for future technologies, and the digital transition of operations, Apacer hopes to extend the industrial value chain through investments and alliances, transforming it into the fourth business momentum of growth - strategic partnership alliance.

## ● Apacer's responses to the post-pandemic era

Taiwan suffered from a violent COVID-19 outbreak in 2022. The explosive transmission led to a peak in the number of positive cases, yet most patients had mild symptoms. Thus, Apacer made continuous adjustments in operation alongside the government's policies. The pandemic made zero impact on Apacer's operations, as businesses with suppliers and customers remained normal.

- Apacer HQ implemented the following measures: mandated indoor facial mask usage, travel history management, office space management visitor management, etc. Apacer's overseas subsidiaries also followed their local governments' regulations and stayed in line with the pandemic prevention policies.
- COVID-positive employees: pandemic insurance was provided for the employees, and were employees strictly requested to report their positive diagnoses at once. Irregular caring sessions were conducted during the quarantine period for COVID-positive employees.
- Employees were encouraged to take self-health management practices.

## Chapter I

# A Better Partner for Navigating Innovation

### Vision

With the vision “Pioneering the technicalized information services integration based on digital storage as the core”, Apacer intends to build a rapid, stable, and reliable smart storage application environment, hoping to become a trustworthy integrator of value-added services and offer excellent product/service usage experiences.

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### Policies and promises

With the brand promise of “Access the best”, Apacer keeps doing innovation and research to step in the field of diversified products , positioning itself as the technicalized information service integrator and drawing up the blueprint of future development. We promise to pursue growth and breakthrough while, on the basis of integrity management, deeming sustainable development as the core objective of business operations, in order to create further values for stakeholders.

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Major topics				
Corporate governance				
Impact description	Compliance with laws and regulations; assuredness of open and transparent information; enterprise with integrity management; responsible for all stakeholders. . Potential negative aspects: As the Russia-Ukraine war remains locked in stalemate, while international financial sanctions still continue, the risks in international remittance keeps increasing, which causes impact on daily operations to a certain extend.			
Policy promises	From the perspective of sustainable business operation, to review and inspect potential internal and external risks prudently, implement risk management mechanisms, and enhance the efficiency of division of labor in risk management , in order to reasonably ensure the achievement of the enterprise's strategic goals.			
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	To set the position of the Head of corporate governance, taking charge of matters related to corporate governance	. Set the Head of corporate governance	in October 2022, the Board of Directors approved the position of the Head of corporate governance who will be in charge of performing corporate governance related matters in October 2022	Things accomplished
	Increasing the transparency of the information about the company, for promoting sustainable operations	. Disclosing correct information related to finance, operations and corporate governance in both Mandarin and English on the official website. . Regular communications with the investors, explain the operating status and market prospect	. Construction of new official website . The enterprise held investor conferences in February and August, 2022, respectively.	Things accomplished
Stakeholder Engagement	Stakeholders	Communication methods	Frequency	Complaint mechanisms and response methods
	Employees	Ethics and legal compliance	Annually	Propaganda of legal compliance
		Occupational health and safety	Annually	Annual education training
		Performance assessment	Twice per year	Performance assessment and communication
	Investors	Convention of investor conference	Biannually	Description of operation performance and market prospects
		Shareholders' meeting	Annually	Reporting and discussion of the enterprise's operations
		Risk management	Non-periodic	Assigning a specific contact person along with an e-mail Contact person: Mei Lin, Project Manager mei_lin@apacer.com
		ESG review meeting	Annually	Publication of sustainability repor
	Customers	Customer relationship management	Annually	Survey of customers' overall satisfaction
			Non-periodic	Providing a customer service hot-line and on-line contact information 0800-668-699 https://www.apacer.com/en
Sustainability goals		評估方式		
Short-term goals (2023)	. To maintain the ranking of top 6%~20% in Corporate Governance Evaluation		. To periodically review the e performance of corporate governance evaluation indicators which will be helpful to the adjustment and/or improvement for the enterprise in terms of sustainability development topics . To report the execution progress of corporate governance to the Sustainable Development Committee on a quarterly basis	
Mid-term goals (2023-2025)	. Based on the blueprint of Corporate Governance 3.0, to build up a comprehensive corporate risk control, and management, while enhancing corporate information transparency in order to maintain the ranking of top 6%~20% in Corporate Governance Evaluation			
Long-term goals (2026)	. To continue reinforcing corporate governance performance, conduct regular self-review of the corporate governance system, and enhance information transparency while protecting the rights and benefits of shareholders and stakeholders			
Sustainable Development Goals of the United Nations				
8.2 Th enhance the productivity of economies through diversification, technological upgrading and innovation, including through a focus on high value added and labor-intensive sectors. 16.5 Substantially reduce corruption and bribery. 16.6 Develop effective, accountable and transparent i systems at all levels.				

Major Topics				
Operational Risk Management				
Impact description	To review potential internal and external risks, implementrisk management mechanisms, enhance the division of labor in risk management, and seek for solving orreducing the impact on operational risks. Potential negative aspects: In 2022, due to factors such as international and regional tensions affecting customer operations and credit issues, frequent hacking, and internal inventory management,the enterprise's operational goal achievement had been affected.			
Policy promises	From the perspective of sustainable business operations to review and inspect potential internal and external risks prudently, implement risk management mechanisms, and enhance the efficiency of the division of labor in risk management,in order to reasonably ensure the achievement of the enterprise's strategic goals.			
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	Risk item management			
	There was a total of 20 risk items this year 3 high-level risk items 15 moderate-level risk items 2 low-level risk items	High-level risks < 20%	High-level risk ratio 15%	Things accomplished
	Inventory management			
	. Reducing the materials that have been unnecessary for a long time: Purchasing, reselling or turning into substitute materials, in order to enhance shareability . Canceling the purchase orders/amounts: Tracking and updating the sales forecasts on a monthly basis. Adjusting the placement of purchase orders according to demand or postponing the schedules of purchases .	Reducing the inventory risk of idled materials and reducing the inventory of PCB & electronics materials to be less than 50%	Negotiating for reducing the inventory of PCB & electronics materials successively every quarter; the inventory was reduced to be around 70%	Things accomplished
	Information security			
	. Fortifying the Company's information security control technology and management: - Fortification of Endpoint MDR (Managed Detection and Response) - Continuing on providing information security education trainings for IT personnel - Formulating and declaring information security management measures/regulations, and conducting regular propaganda of information security awareness and knowledge to every unit	. Fortifying the Company's information security control technology and management: - Deploying the Endpoint MDR (Managed Detection and Response) - Providing certification for the IT personnel receiving the information security education trainings - -Updating the information security management measures/ regulations	Negotiating for reducing the inventory of PCB & electronics materials successively every quarter; the inventory was reduced to be around 70%	Things accomplished
	. Establishment of information security back-up mechanisms: - Establishing a complete D-D-T (DISK TO DISK TO TAPE) and remote back-up system	. Establishing information security back-up mechanisms: - Performing server network performance enhancement projects - Performing the project of back-up space expansion	. Establishment of information security back-up mechanisms: - Server network performance enhancement were completed in 2022-Q3. - Back-up space expansion and backbone network speed-up were completed in 2022-Q4.	
	Transaction risks			
	Fortifying unsecured credit risk management	Reducing the risks in customer accounts, making the percentage of bad debts of unsecured credit customers to be less than 5%	The bad debts of unsecured credit customers accounted for 1.23%	Things Accomplished
Stakeholder Engagement	Major communication items in 2022: Control and management regarding information security, inventory management, and transaction risks			
	Stakeholders	Communication methods	Frequency	Complaint mechanismsand response methods
	Investors	Disclosure on the official website/annual report Risk management reports	Annually	To describe the assessment status of risk management
		Disclosure of sustainability report	Annually	Establishment of an exclusive contact window and e-mail Contact window: Mei Lin, Project Manager mei_lin@apacer.com Publication of sustainability report
Sustainability goals		Assessment methods		
Short-term goals (2023)	To continuously supervise and review the existing risk issues To have the risks within the scope of control	To review the changes in incidence rate and impact degree of the risks on a quarterly basis and to introduce improvements at any time		
Mid-term goals (2023-2025)	To gradually enhance moderate and high-level risks			
Long-term goals (2026)	To eliminate major risks			
Sustainable Development Goals of the United Nations				
8.2 Achieve higher levels of productivity of economies through diversification, technological upgrading and innovation, including through a focus on high value added and labor-intensive sectors. 16.5 Substantially reduce corruption and bribery. 16.6 Develop effective, accountable and transparent institutions at all levels.				



Major Topics				
Information Security				
Impact description	If there is any information security leakage, it will not only affect have impact on business operation but also affect customers and suppliers, and even impair shareholders' rights and benefits, which may result in significant loss in finance and goodwill. Potential negative aspects: Due to the increase of cyber attacks arising from the Russia-Ukraine War in 2022 as well as the interruption of the Company's information service cause by power outage because of energy shortage, the risks of information security management had elevated accordingly.			
Policy promises	Information security defense and system regulation processes should be strengthened continuously,in order to maintain stable business operation, uninterrupted information service, and information protection. The information security systems and management strategies should be enhanced and refined periodically. By integrating the international information security standards ISO27001 and NIST SP800-171, we set up information security management frameworks.			
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	To establish a smart real-time threat detection and prevention system, in order to hunt for high-risk threats within time limit and launch emergency responses	<ul style="list-style-type: none"><li>To establish an information security early-warning mechanism in order to capture threats within 60 minutes</li><li>To integrate multiple report channels for emergency response that should be completed within 30 minutes</li></ul>	<ul style="list-style-type: none"><li>It is verified to be able to capture threats within 60 minutes and interrupt attack paths</li><li>Emergency response report channels can send out the reports within 30 minutes</li></ul>	Things Accomplished
	Establishing the back-up power supply in the IT room, to fortify IT infrastructure	<ul style="list-style-type: none"><li>The storage of back-up power supply in the IT room was extended by 3 times</li><li>Fortifying the accountability of IT infrastructure,i to guarantee data availability</li></ul>	<ul style="list-style-type: none"><li>The storage of back-up power supply in the IT room was extended by 3 times</li><li>Data will not be lost if power outage occurs in the IT infrastructure encounter for a duration of three hours</li></ul>	Things Accomplished
	Enacting Apacer's information security control frameworks that cover four major international information security standards	<ul style="list-style-type: none"><li>T Dealing with the renewal of governance systems that comply with international information security management</li><li>Maximizing the scope of information security protection, extended from IT infrastructure to the fird of application development</li></ul>	<ul style="list-style-type: none"><li>Completing the self-assessment of international information security management system</li><li>Developing 8 major fields of information security defense and implementing controls in 20 sub-fields</li></ul>	Things Accomplished
	Continuing the information security education trainings for IT personnel	<ul style="list-style-type: none"><li>CEH Information Security Certificate Course - EC-Council CEH (Certified Ethical Hacker) Training: 1 participant</li><li>ISC Information Security Certificate Course - SSCP (System Security Certified Practitioner) Training: 1 participant</li></ul>	<ul style="list-style-type: none"><li>CEH Information Security Certificate Course - EC-Council CEH (Certified Ethical Hacker) Training: 1 participant; passing rate of 100%</li><li>ISC Information Security Certificate Course - SSCP (System Security Certified Practitioner) Training: 1 participant; passing rate of 100%</li></ul>	Things Accomplished
Stakeholder Engagement	Major communication items in 2022: Project-based major risk control and implementation, as well as the reports of efficiency tracking, information security defense results and emergency responses results.			
	Stakeholders	Communication methods	Frequency	Complaint mechanisms and response methods
	Employees	Annual achievement report	Annually	Internal hotline 5300
		Project communication and review	Quarterly	
		E-mail	Non-periodic	
	Customers	Customer	Annually	Survey of customers' overall satisfaction
			Non-periodic	Customer service hot-line and on-line contact information 0800-668-699 <a href="https://www.apacer.com/en/form/contact-us">https://www.apacer.com/en/form/contact-us</a>
Suppliers	relationship	Periodic	Survey on suppliers' satisfaction	
	management	Once per year		
Sustainability goals		Assessment methods		
Short-term goals (2023)	<ul style="list-style-type: none"><li>To strengthen the Company's operational resilience and implement the upgrade of of the back-up mechanisms and conduct disaster drills</li></ul>	<ul style="list-style-type: none"><li>To obtain international information security certification and accredit asset protection levels</li></ul>		
Mid-term goals (2023-2025)	<ul style="list-style-type: none"><li>To defense the Company's information assets comprehensively and comply with international information security protection frameworks</li></ul>			
Long-term goals (2026)	<ul style="list-style-type: none"><li>To continuously and periodically improve the Company's information security defense, for expanding the the Company's defense mechanisms</li></ul>			
Sustainable Development Goals of the United Nations				
8.2 To enhance the productivity of economies through diversification, technological upgrading and innovation, including through the focus on high value-added and labor-intensive sectors.				



Major Topic					
Economic performance					
Impact description	Being a memory module house in such a fast-changing industry, the major cause affecting economic performance lies in how to grasp international trends instantly so as to adjust operational strategies immediately. In addition, the fulfillment of corporate social responsibility (CSR) and implementation of corporate governance will also have impact on economic performance. . Actual positive aspects: To have continuous growth in economic performance, we grasp information by developing diversified channels or instruments, to fortify operational efficiency in various aspects, while keeping the positive image of our brand. We will repay all the stakeholders through our excellent economic performance.				
Policy promises	To formulate better operational strategies and business plans through effective risk management mechanisms, for achieving operational objectives and creating sustainable operations that increase the Company's economic value				
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022		Effectiveness tracking
	1.To periodically convene operational management meetings 2.To develop relevant internal information platforms that can enhance decision-making benefits 3.To periodically convene risk management meetings,for ensuring risk control or elimination 4.To periodically convene ESG Review meetings in order to promote sustainability affairs further	. No significant events that may affect economic performance had happened . Continuous profitability	. No significant events that may affect economic performance had happened . ESP reached historic peak of \$5.3		Things Accomplished
Stakeholder Engagement	Stakeholders	Communication methods	Frequency	Complaint mechanisms and response methods	
	Employees	Annual achievement report	Annually	Annual report	
		Project communication and review	Annually		
		E-mail	Non-periodic		
	Investor/juridical person	Convention of juridical person conference	Twice a year	Description of business performance and market prospects	
		Shareholders' meetings	Annually	Reporting and discussing the Company's business operation	
		Risk management	Non-periodic	Providing the position of a specific contact person with e-mail Contact window: Mei Lin, Project Manager mei_lin@apacer.com Publication of sustainability reports	
	Customers	Customer relationship management	Annually	Survey of customers' overall satisfaction	
			Non-periodic	Providing a customer service hot-line and on-line contact information 0800-668-699 https://www.apacer.com/en/form/contact-us	
Sustainability goals			Assessment methods		
Short-term goals (2023)	. To develop three major kinds of operational momentum in order to increase operating benefits		. Various financial performance in the annual financial report		
Mid-term goals (2023-2025)	. To become the leading brand that offers integrated services and innovative value				
Long-term goals (2026)	. To become the leading brand that integrates the value ecosystem				
Sustainable Development Goals of the United Nations					
8.2 The enhance the productivity of economies through diversification, technological upgrading and innovation, including through the focus on high value-added and labor-intensive sectors.					

Material topics				
R&D Innovation				
Impact description	To create excellent products and value-added technologies through R&D and innovations to enhance the Company's competitiveness so as to expand our market share. · Actual positive aspects: To create differentiated advantages by means of brand product innovations as well as vertical and horizontal industrial cooperation · Potential positive aspects: To conduct innovative solutions with 10 products through vertical and horizontal industrial cooperation			
Policy promises	To accumulate the quality and quantity of patents and expand new depth of innovation To set up Patent Development Committee and Patent Review Team that will conduct internal invention patent reviews and business opportunity planning.			
Management actions/Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	Patent innovations based on the five major patent themes	Cases of patent applications/8 certificates	Cases of patent applications/8 certificates	Things Accomplished
	R&D and innovations for products and technologies	10 solutions and products	16 solutions and products	Things Accomplished
Stakeholder Engagement	Stakeholders	Communication methods	Frequency	Complaint mechanisms
	Employees	R&D meetings and project meetings	Periodic	Project discussions
	Customers	Seminars and the Company's website	Non-periodic	Field- isits, telephone calls, and e-mail satisfaction survey
Sustainability goals			Assessment methods	
Short-term goals (2023)	· To research and develop innovative products, by cultivating technology development, and keep innovating and conducting R&D, so as to provide customized services		· Patent goal: 8 patent applications · Project goal: 10 innovative solutions and products	
Mid-term goals (2023-2025)	· To convert the patented innovative technologies into actual operational benefits			
Long-term goals (2026)	· To drive the momentum of R&D growth and keep the sustainable business operations			
Sustainable Development Goals of the United Nations				
8.2 To enhance the productivity of economies through diversification, technological upgrading and innovation, including through he focus on high value added and labor-intensive sectors.				

1.1

# About Apacer

Established in 1997, Apacer was listed on the Taiwan Stock Exchange in 2010 (stock code: 8271). In addition to industrial -controlled memory modules and digital storage value-added technologies, our service scopes also include consumer-based memory products, gaming memory modules, and other peripherals. Besides, Smart Application Division was set up to integrate ICT and OT, for promoting IIoT active disaster prevention system and AI+AOI general solutions.

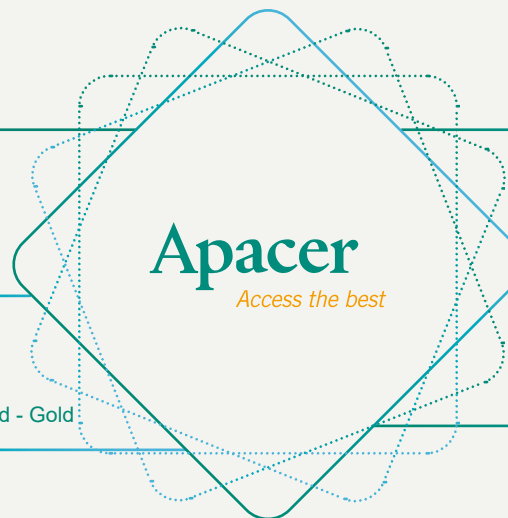


Winner of the 31st Taiwan Excellence Award



Winner of TCSA Taiwan Sustainability Report Award  
- Silver Award in 2022

2023 Harvard Business Review - Elite Manufacturer Award - Gold



Being nominated as the Emerging Brand in Best  
Taiwan Global Brands - for 5 years in a row



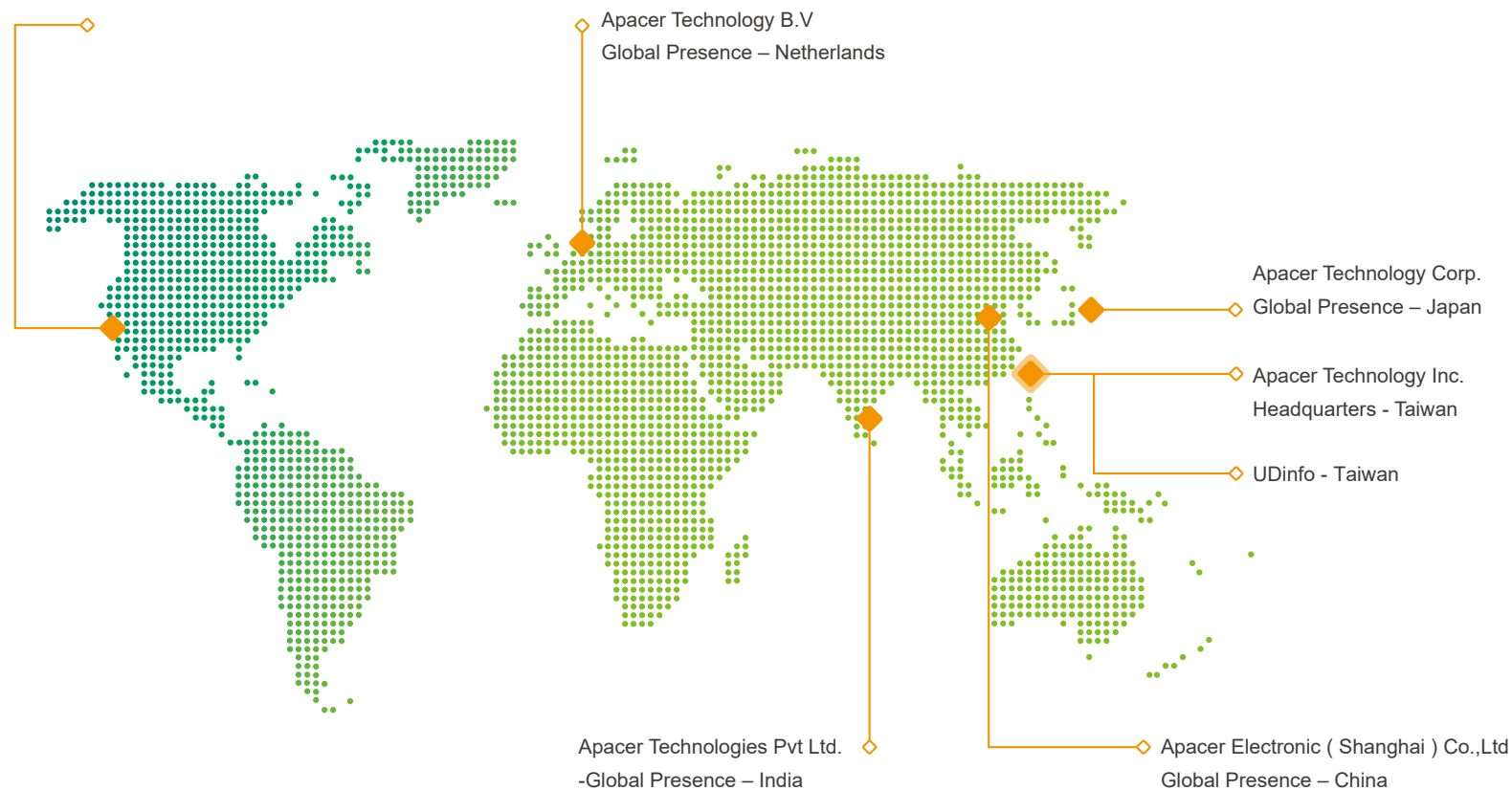
Ranked 10th  
in global DRAM module plant revenue



HR Asia  
Best Companies To Work For In Asia Award

For more information about award winning: <https://www.apacer.com/en/awards/awards>

Apacer is equipped with the abilities of integration, R&D, design, manufacturing and marketing . With its global operation headquarter in New Taipei City, Taiwan, it has also set up subsidiaries in China, USA, the Netherlands, Japan, and India. In 2022, UDinfo (located in Sanchong District, New Taipei City) has become the sixth subsidiary through stock-for-stock approach. Its business scopes spread all over the world. Its customer groups include iconic distributors, equipment manufacturers, system integrators, retailers, etc.



Company Name	Apacer Technology, Inc.
Company Address	1F., No. 32, Zhongcheng Rd., Tucheng Dist., New Taipei City
Date of Establishment	April 16, 1997
Listing Information	Taiwan Stock Exchange, Stock Code: 8271
Capital amount	NTD1.23 billion

Main Products	-Industrial SSD	-Pen drive/external hard drive
	-Memory modules	-Smart IoT integration solutions
	-Consumer digital products	-Optical detection application

Total Employees<sup>1</sup> 574

Note 1: The total number of employees means the ones in our business locations around the world as of Dec. 31, 2022

## Brand promise, core value, and mascot

Apacer's development vision consists of "Pioneering the technicalized information service integration based on digital storage as the core". With solid digital storage technologies, Apacer upholds the brand promise of "Access the best" in order to provide outstanding products and services for customers. Through the words "Becoming a Better Partner" that has been internalized to be the basis of business culture, our brand core value -- "Keep Our Promise; Insist on Making Improvements; Cooperate with Partners" ---- has become the core momentum for promoting sustainable business operations.

To show the diversity of our core value, we have an annual event called "Apacer Thank You Day" which was even expanded into our overseas subsidiaries this year. In addition to showcasing the group photo of a

subsidiary in its hall on the first floor, we also set up a mailbox so that the colleagues can submit thank-you cards to overseas personnel. The staff in the headquarter can also hang their personally-written thank-you cards on the Christmas tree which become the warmest decoration in the cold winter time.

The year of 2022 was Apacer's 25th anniversary. Based on our vision and core value, we have launched Apacer mascot "APA". Its name originates from the similar pronunciation of Apacer. The image intends to transmit a sense of reliability of "Becoming a Better Partner" through its stable but versatile configuration. At the same time, in order to promote APA, we entrusted an animation company to produce a piece of image animation. What's more, relevant POSM (Point of Sale Materials) were made and distributed to our employees, customers and suppliers. We hope to earn further brand sustainability value by promoting our brand image.

### Brand promise

**Apacer**  
Access the best

### Brand Core Values

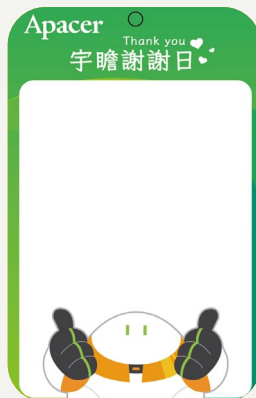
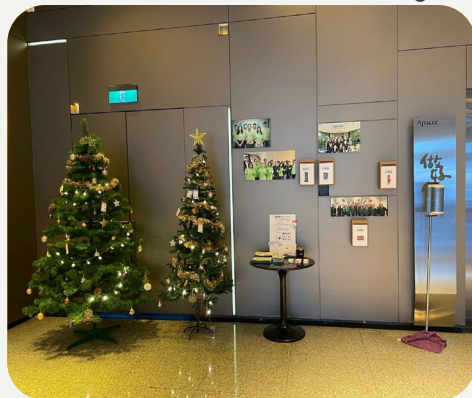
**做好人**  
說到做到 • 堅持更好 • 夥伴共進

### Brand mascot APA

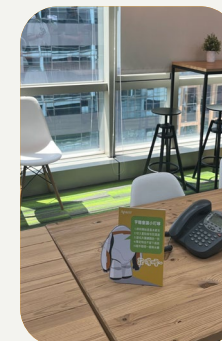


## Apacer Thank You Day

### Christmas cards with warm messages



### Meeting reminder



### Floor design and decoration



### Line stickers

### APA red envelope + Spring couplets



### Promotion of Family Day



### APA animation



<https://youtu.be/al748ilrE30>

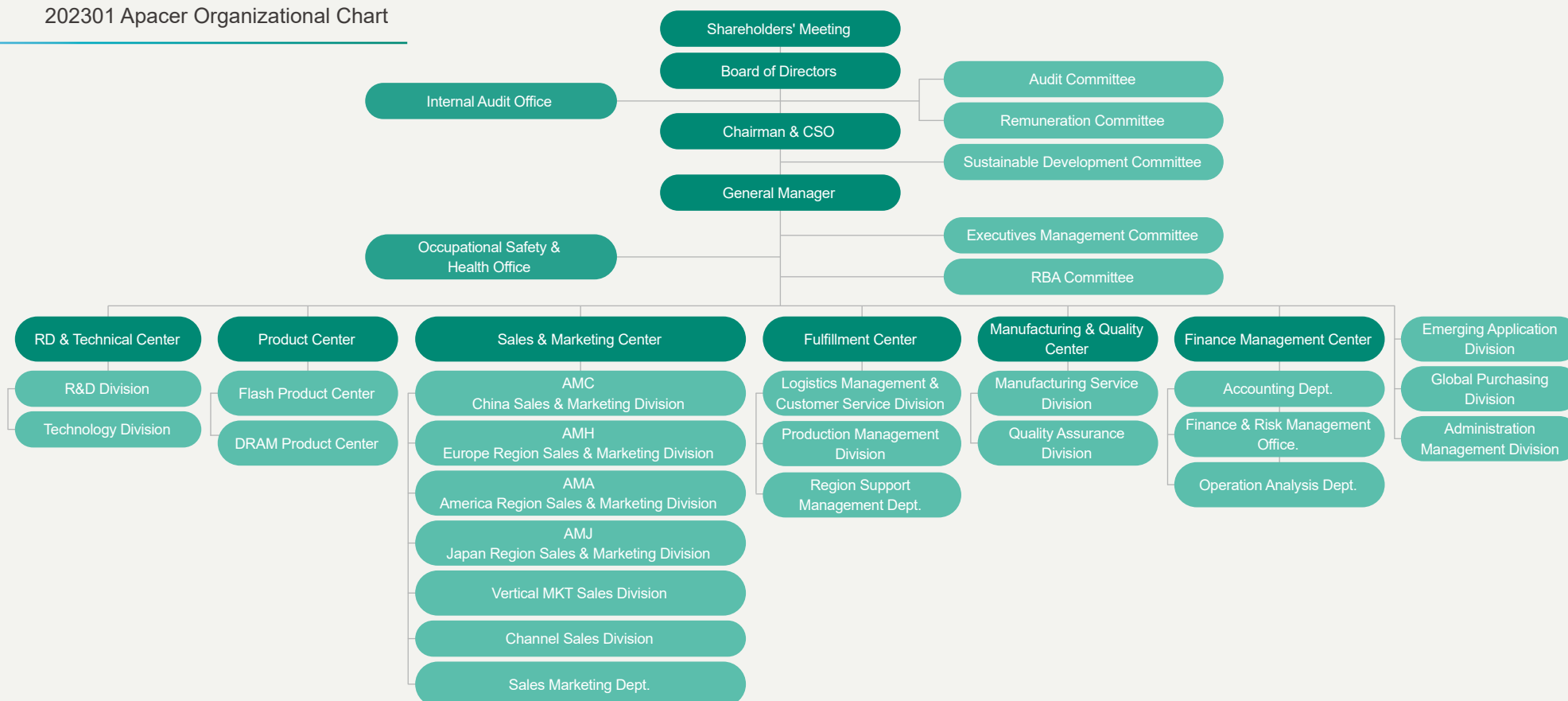


APA bag and umbrella

## ● Corporate organization and culture - To build a friendly, healthy and people-oriented workplace

To embrace the era of speed economy, Apacer, in pursue of business growth, can master various business innovation models and maximize operational synergy. Currently, under the management from General Manager, 6 functional centers and 3 major new business/support divisions have been set up.

202301 Apacer Organizational Chart





## ● “Apacer” brand - Key of development

Apacer's own brands account for 90% of the main business areas in our total revenue percentage. During the past 25 years, the Company has accumulated rich experiences in the digital storage field and offered innovative products based on its solid R&D capabilities. To expand further diversified business operations and set up a long-term operational blueprint, we also provide gaming-related applications and products, in addition to consumer-based digital storage products. Meanwhile, we continue cultivating in the vertical application market. In terms of the smart IoT field, we've already had the foresight of future technological trends; that's why we set up a relevant division as early as 2017. Currently, we focus on AOI equipment and IoT integrations in order to accomplish our long-term vision of sustainable innovation.



### Vertical market application

A series of stable and durable digital storage solutions have been designed exclusively for vertical application markets, such as industrial matters and cloud data centers, vehicle-use, military spec, gambling, health care, etc.



### Consumer product and high-end gaming applications

We have designed a series of digital storage and mobile peripherals based on consumers' life experiences, including a full range of gaming-exclusive SSD and memory modules, mobile hard drives, USB, memory cards, etc. Gaming applications include high-end customized water cooling cases, gaming memory RAMs and SSD, allowing consumers to build their dream computers and enjoy endless fun.



### Smart IoT applications

With the integration of ICT and OT, we offer basic AIoT planning and smart automation construction services through the business models of overall solutions. In addition to the active promotion of IIoT proactive disaster prevention system, we also have in-depth development of AI+AOI overall solutions. The one-stop service allows clients to shorten their development time for smart IoT.

major  
topic  
1.2

# Integrity management and corporate governance

“Fortification of corporate governance” is the core value of corporate governance in Apacer, who is in pursue of ranking improvement in the corporate governance evaluation by taking practical actions. From the ranking of top 36%~50% in the third evaluation in 2016 to the ranking of top 21%~35% in the fourth evaluation in 2017, we achieved an outstanding performance of the top 5% in the following two consecutive years. During 2020 - 2021, our ranking still outperformed our competitors, keeping ourselves in top 6%~20%.

## Apacer's corporate governance execution matters in 2022

- Apacer has set up the position of the Head of Corporate Governance, while assigning Lai Tzu-Wen to serve as CFO and Spokesperson.
- GHG inventory plan and progress status will be reported to the Board of Directors on a quarterly basis.
- The “Sustainable Development Committee” is responsible for reporting to the Board of Directors on the performance results of the sustainable development practice code of that year, the communication situation with stakeholders, and work plans for the following year, so as to ensure the implementation of CSR practice code.
- The “Integrity Management Execution Unit” is responsible for reporting to the Board of Directors on the performance results of and the plans for the promotion of integrity management of that year, so as to ensure the implementation of integrity management code, so that the value of integrity management can be integrated into the Company's operational strategies.



## ● Corporate governance structure

### Board of Directors

#### Election and nomination

Apacer's Board of Directors has adopted a nomination system in consideration of the member's diversity and independence according to Section 1 "Board of Directors' Structure", Chapter III "Fortification of Directors' Functions" in the "Corporate Governance Practice Code". In the future, the candidates' ESG impact management abilities will be included in the selection criteria. The Board of Directors is composed of 9 directors who have rich experiences in their professional fields respectively, along with 3 independent directors (accounting for 33.33%), an seat number better than that of the existing regulations. Also, one seat should be a female independent director. The director's term of office is three years, and the re-election is conducted in the shareholders' general meetings. The current term was re-elected and entered into operations on July 14th, 2021, and will terminate on July 14th, 2024. For further details, please refer to: [Corporate Governance Practice Code](#)

#### Board's self assessment

Apacer conducts a Board's self-assessment every year based on the "Board Performance Assessment Criteria". Currently, there is no third-party independent evaluation. The self-assessment includes assessment scopes measures and indicators. The Board of Directors, board members' (self or peer), and Apacer Functional Committee' will conduct the assessments of various aspects. To enhance the Company's resilience in sustainable operations, ESG impact management abilities will be included. Please refer to Article 8 of "Board Performance Assessment Criteria". The results of the performance assessments are divided into three levels: beyond standard, standard, and to-be-improved.. For details of accomplishments, please refer to the 2022 Accomplishment Report of Board Performance Assessment Criteria.

Download: <https://www.apacer.com/en/html/board-of-directors>

Assessment items	Assessment results
Performance assessment (overall) of the Board	Beyond standard
Board members' (self) assessment of performance	Beyond standard
Performance assessment of Apacer Functional Committee	Beyond standard

#### Diverse backgrounds

Board members have their own professional knowledge respectively in business management, accounting and finance, engineering technology, and so on. Based on their different professional backgrounds, each of them is equipped with the abilities of accounting and financial analysis, business management, entrepreneurship and investment, engineering technology, leadership and decision-making, so that they can contribute to complementary and supplementary effects based on their diverse abilities. Thanks to the directors' professional backgrounds and industrial experiences, Apacer can truly implement operations and future development strategies. In 2022, the directors participated in a 75-hour ESG-related continuing education in order to enhance the Board's sustainability intelligence and knowledge, so that our corporate governance policies and planning can be in line with the times.

#### Principle of interest avoidance

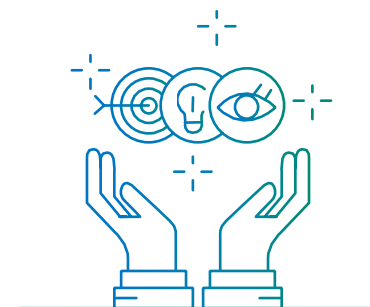
In 2022, a total of seven Board meetings by the current Board of Directors were held, and the average attendance rate was 98%. Apacer gives great importance to the transparency, professionalism, and high efficiency of the Board's operations in order to strengthen the effectiveness of corporate governance. The Board supervises the Company's major decision-making based on international affairs, market observations, and financial assessments. We kept fortifying the Board's ESG awareness and abilities, for safeguarding shareholders' interests, enhancing operational performance, allowing independent directors to play their roles, fortifying risk management, and ensuring information transparency. Thus, the interests of all stakeholders of the company can be guaranteed.

#### Board functions

In addition to supervising the Company's operation status and providing operational suggestions, the Board also conducts discussions regarding business sustainability-related matters, which are then entrusted to the Secretariat of Sustainable Development Committee, for further implementation. Please refer to Page 37-38 of the Annual Report for the Board's group intelligence education training.

Title	Name	Organizer	Course name	Hours	ESG correspondence
Chairman	Austin Chen	Taiwan Corporate Governance Association	ESG Report Trends and the Business Implications of the Information Disclosure	3	ESG
			On the Assessment and Execution of Mergers and Acquisitions in Investments from a Legal Standpoint	3	G
Director	Chia-Kun Chang	Securities and Futures Institute	Blockchain Technology Development and Business Models	3	G
		Taiwan Corporate Governance Association	Case Analysis of Disputes on Corporate Management Rights	3	G
Director	Li-Da Lu	Taiwan Corporate Governance Association	How Should Directors and Supervisors Oversee Enterprise Risk Management and Crisis Management	3	EG
			Opportunities and Challenges in the Next Decade	3	G
Representative of corporate director	Wen-Chieh Weng	Securities and Futures Institute	How Should Directors and Supervisors Oversee Enterprise Risk Management and Crisis Management	3	G
			Opportunities and Challenges in the Next Decade	3	ESG
Director	Shao-Hua Huang	Taiwan Corporate Governance Association	Safeguarding Business Operations with Financial Reports	3	G
		Securities and Futures Institute	Introduction and Case Analysis of Swing Trades by Insiders	3	G

Title	Name	Organizer	Course name	Hours	ESG correspondence
Director	Hung-Po Hsieh	Taiwan Corporate Governance Association	ESG Report Trends and the Business Implications of the Information Disclosure	3	ESG
			2030/2050 Green Industrial Revolution	3	EG
			Public Relations Fundamentals for Handling Legal Incidents	3	G
Independent director	Kuang-Yi Wu	Taiwan Corporate Governance Association	ESG Report Content Description	3	ESG
			Carbon Issues and Strategies in an Enterprise	3	EG
			Under the Supervision of Independent Directors and Board of Directors from an International Standpoint	1	G
Independent director	Chin-Pin Peng	Quantum International Corp (QIC) , Georgeson and Taiwan Stock Exchange	Online forums of International Twin Summit	2	G
		Taiwan Stock Exchange, Alliance Advisors, and Taiwan Corporate Governance Association	On the Directors' Legal Responsibilities from the Perspective of Intellectual Property Management	3	G
			2030/2050 Green Industrial Revolution	3	EG
			Public Relations Fundamentals for Handling Legal Incidents	3	G
			Corporate Governance in the Group	3	G
			2030/2050 Green Industrial Revolution	3	EG
			Public Relations Fundamentals for Handling Legal Incidents	3	G
Independent director	Jing-Shih Han	Taiwan Corporate Governance Association	Trends and Challenges of Information Security Governance	3	G
			Trends and Management of Digital Technologies and AI	3	G
			Corporate Governance in the Group	3	G



Title	Name	Gender	Professional background	Industrial experiences							Board of Directors Attendance number	Attendance rate
				Accounting and financial analysis	Business management	Entrepreneurship and investments	Engineering technology	Leadership and decision-making abilities	Net-zero pathway	Social and human-right impact		
				G	ESG	G	EG	G	EG	SG		
Chairman	Austin Chen	Male	Management		V		V	V		V	7	100%
Director	Li-Da Lu	Male	Management and engineering		V	V	V	V		V	7	100%
Director	Chia-Kun Chang	Male	Management and engineering		V		V	V	V		7	100%
Director	Hung-Po Hsieh	Male	Management and engineering		V		V	V	V		7	100%
Director	Shao-Hua Huang	Male	Engineering and finance	V	V		V	V		V	7	100%
Director	Representative of Phison Electronics Corp. - Wen-Chieh Weng	Male	Accounting	V			V	V		V	6	86%
Independent director	Kuang-Yi Wu	Male	Engineering		V	V	V	V	V		7	100%
Independent director	Chin-Pin Peng	Male	Management and finance	V	V	V	V	V		V	7	100%
Independent director	Jing-Shih Han	Female	Finance	V	V		V	V		V	7	100%

#### Notes:

- Please refer to p.10-11 of the Annual Report for the part-time employment status of relevant Board members as well as the existence of shareholders who have controlling powers (shareholdings of directors).
- Please refer to p.61 for the intersect holdings of suppliers or other stakeholders.
- Please refer to p.199-201 for the lists of stakeholder groups as well as relevant parties, transactions, and outstanding balances.
- Download: <https://www.apacer.com/en/normaldownload/shareholders-meeting>

#### Remuneration policy

In terms of the remuneration policy for the relevant highest governance unit and high management, including the fixed salary, floating rewards, signing bonus, etc., the remuneration policy of the remuneration policy for the relevant highest governance unit and high management is currently not related to the organization's goals and performance regarding economic, environmental and population-related impact.

## ● Apacer Functional Committee

### Remuneration Committee

Establishment / August 2011

**Function /** The main responsibilities for the Remuneration Committee is to faithfully fulfill the following duties and power with due care of a good administrator, and submit the proposed suggestions to the Board of Directors for further discussions.

- To enact and periodically review the organizational procedures of the Remuneration Committee, and propose suggestions for modifications.
- To set up and periodically review the annual and long-term performance goals required by the directors and managers, as well as the policies, systems, standards, and structures of the remuneration on a yearly basis.
- To periodically assess the performance and goal achievement status of the directors and managers, and to set the content and amount of individual remuneration.

#### Attendance ratio for committee meetings /

Title	Name	Actual number of attendance	Attendance ratio(%)
Convener	Kuang-Yi Wu	6	100%
Committee member	Chin-Pin Peng	6	100%
Committee member	Jing-Shih Han	6	100%

Note 1: The term of office of the current committee is from July 14th, 2021, to July 13th, 2024.

Note 2: Attendance rate = Actual number of attendance / Number of meetings.

### Audit Committee

Establishment time / May 2018

**Function /** To audit and supervise the following matters.

- Proper expression of the Company's financial reports
- Election (dismiss) and remuneration of the certified accountants
- Independence of certified accountants
- Effective implementation of the Company's internal control
- Compliance with relevant laws and regulations and controls over the Company's existing or potential risks

#### Attendance at committee meetings /

Title	Name	Actual number of attendance	Attendance ratio(%)
Convener	Kuang-Yi Wu	6	100%
Committee member	Chin-Pin Peng	6	100%
Committee member	Jing-Shih Han	6	100%

Note 1: The term of office of the current committee consists of July 14th, 2021, to July 13th, 2024.

Note 2: Attendance rate = Actual number of attendance / Number of meetings.

## ● Enterprise's sustainability cornerstone - integrity management

### Apacer's integrity management policy

Implementation of integrity management; prohibition on inappropriate benefits; information openness and transparency; respect to intellectual property rights; fair trade and competitions; identity confidentiality and anti-retaliation

Apacer deems legal compliance as the basic premise of integrity management. All global operating bases comply with the laws and regulations of their corresponding regions. To ensure the implementation of legal compliance and interest avoidance, the integrity management policies as well as relevant solutions, such as the "Ethics Operation Code" and "Ethical Operation Procedures and Conduct Guidelines", have been formulated and approved by the Board. To avoid conflicts of interest, the employees are strictly forbidden to have their personal interests interfered with or possibly interfered with the overall interest of the Company; the integrity management operations and status are also reported to the Board every year. Also, the Company

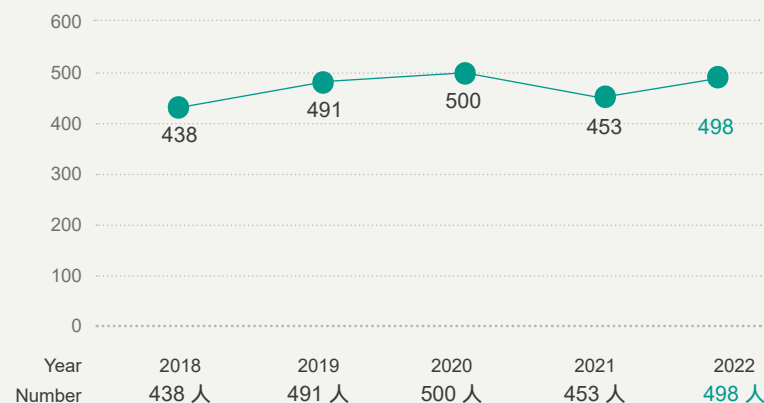
assigns Human Resources & Administration Management Department to manage integrity management, ensuring the effectiveness and rationality of the internal control system compliance. To proactively prevent any misconduct in business operations, Apacer has set up a reporting system to report any matters related to any violation of the company's finance, regulations policies, and ethical standards, as well as any other form of fraudulent behavior. For details, please refer to the <https://www.apacer.com/en/normaldownload/major-internal-policies> in Ethics Operation Code in Apacer's website.

## ● Operational Integrity Code

### Integrity operation education and training

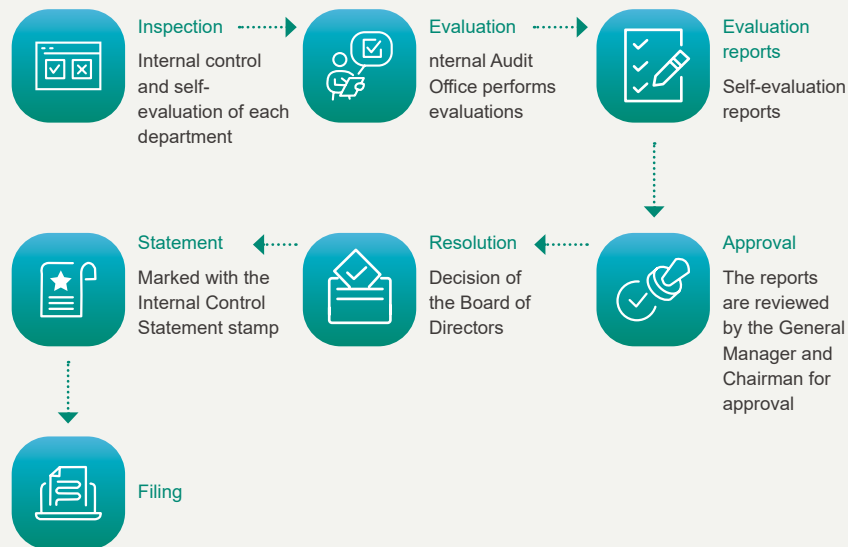
The conduct code related to integrity management has been announced on the intranet of the Company, for promotion and publication purposes. In 2022, annual integrity management education trainings were held, which were related to RBA issues, including labor, health and safety, environment and sanitation, ethics, and management system. A total of 498 employees joined the trainings. The employee training rate reached 100%.

Employees Passing Integrity Operation Training



## Internal audits

Apacer established an internal audit system under laws and regulations, and an Internal Audit Office subordinate to the Board of Directors was established with two designated personnel to perform internal audit operations. The internal auditors formulate an annual audit plan (including self-evaluation) according to the risk evaluation results and regulations, to perform constant audits on the risk items through the implementation of the audit plan and self-inspections, while the results will be regularly submitted to the Audit Committee and the Board of Directors. Apacer conducts internal control through 7 procedures to comply with provisions of laws and strengthen internal risk control:



Note: Internal audit organization and operation [Click for further details](#)

## Reporting system

Apacer puts significant emphasis on matters related to corruption, fraud, and breaches in the Company's integrity management. Thus, we enacted the "Reporting System" procedures. In the event of any suspicious behavior, the misconduct can be reported through a dedicated channel, and then handed to specific personnel who should conduct an investigation for further management.

The company shall keep the whistleblower's identity and the report content confidential, and protect the whistleblower and the relevant personnel during the investigation in order to prevent any retaliation or unfair treatment. The contact channel for the report is "Reporting Committee". In 2022 when this report was disclosed, none of such matters had occurred.

### Contact information for reporting violations of professional ethics



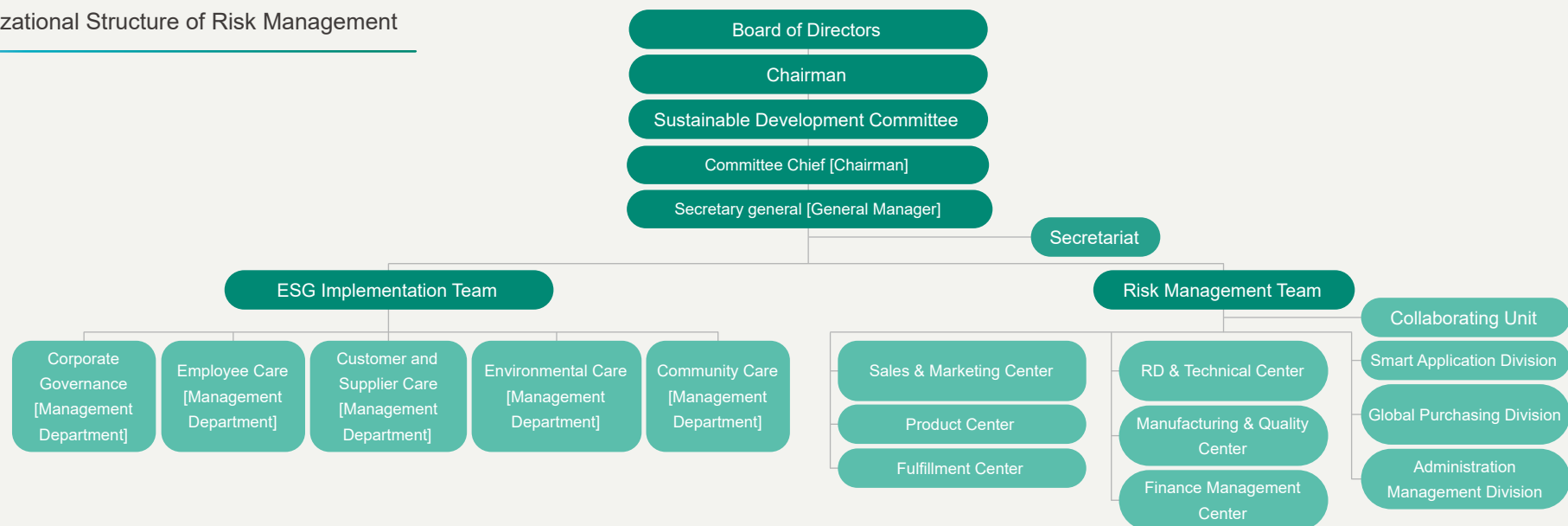
- Reporting contact window / Ms. Hsu
- Reporting hotline / (02)2267-8000#5980
- Reporting e-mail / [whistleblower@apacer.com](mailto:whistleblower@apacer.com)
- Reporting address / No. 32, Zhongcheng Rd., Tucheng Dist., New Taipei City 236, to the Reporting Committee

Note: Reporting system [Click for further details](#)

## Major Topic Operational Risk Management

In order to promote the Company's well-organized operations and sustainable development, Apacer has enacted the "Risk Management Policies and Procedures". During the operating activities, the potential risks inside and outside of the Company should be reviewed from a corporate sustainable management standpoint, in order to fully implement risk management mechanism operation and enhance the efficiency of the division of labor in risk management. In this way, we can reasonably ensure the achievement of the Company's strategic goals.

### Organizational Structure of Risk Management



#### Board of Directors:

Apacer's Board of Directors is the highest decision-making unit for the Company's risk management. It is in charge of the approval of risk management policies and relevant measures, to supervise the implementation of various risk management systems, and make sure that the management mechanism works effectively.

#### Sustainable Development Committee:

The Company has set up a Sustainable Development Committee under the leadership of our Chairman. The Sustainable Development Committee is an implementation and management unit of risk management policies, responsible for the Company's risk management operations:

- To formulate risk management policies and relevant measures.
- To implement risk management policies approved by the Board of Directors.
- To review the Company's issues related to risk management.
- To supervise the overall implementation and coordination.
- To identify, analyze, prevent, control and monitor overall risks or major risk issues.
- To report to the Board of Directors at least once per year.

#### Risk Management Team:

Affiliated to the Sustainable Development Committee, it is a team composed of personnel from various centers and divisions in the Company, mainly responsible for implementing risk management operations. Their duties include basic risk identification of various operational dimensions in the Company's business operations, providing the proposals of countermeasures along with control management plans for further improvement, and the implementation of daily risk management tasks.

## ESG achievements

Apacer has been very successful in the promotion of ESG. In 2022, the CFO Lai Tzu-Wen participated in the "ESG Sustainability Initiative" invited by E.Sun Bank. On the day of the event, E.Sun Bank invited President Ing-wen Tsai; she lit the lantern together with industry partners on the stage and took a group photo with them, proclaiming their determination toward sustainability.



Image: All walks of life should echo with the ESG Sustainability Initiative, for lightening up Taiwan to create a sustainable future.

## ESG internal training

To implement ESG, Apacer believes that employees' level of recognition is a key indicator. Thus, since 2020, the Secretariat of CSR Committee has started opening CSR-related courses. The middle and high level management executives were the first ones to join the courses so that they can pass down the knowledge to the subordinated colleagues through the conceptual education at the first stage. In 2021, as the CSR Committee was changed to be "Sustainable Development Committee", the courses also changed to the introduction of ESG. The middle and high level management executives were invited for further discussions and proposals. This led to the proposals of 29 ESG solutions. After their feasibilities being assessed by relevant units, a total of 15 solutions have been under implementation or completed by the end of 2022.

Considering that product design is the source of sustainable and circular design, we provided the specific course "Sustainable and Circular Design" in 2022 Q4 which was exclusive for PM and RD. Through theories and practices, our staff was guided to contemplate how to echo with sustainable actions starting from the stage of product design.

The staff of PM and RD participated in ESG courses



## Scope of risk management

According to the following risk types, the Company would conduct the operations of corresponding risk management measures:

Members of the Risk Management Team should identify, measure and respond to the risks that are present in the internal and external units of the company, and take follow-up measures in order to track the improvements of the actions taken to target the identified risks in order in the pursuance of effective controls over the risks to be within a manageable scope.

ESG Type	Risk type	Definition
G	Operational risks	Also known as "business risk". It refers to the impact caused by uncertain factors in various links of supply, production, and marketing during the entire process of production and operation in the Company.
G	Market risks	Market risks can be divided into interest rate risk, exchange rate risk, stock price risk, raw material price risk, etc.
E and S	Risks in environmental safety and hygiene	Risks related to occupational disasters/environments and self-pollution/public health incidents (e.g.the pandemic).
G	Financial risks	An enterprise is insolvent to pay the interest or principal of debt financing, leading to the possibility of bankruptcy; thus, this is also known as "default risk".
S	Human resources risks	Risks related to labor force, including risks in the different procedures in terms of recruitment, work analysis, employment plan, performance evaluation, salary management, benefits/incentives, employee training,and employee management.
G	Information security risks	The Company's information assets are under various internal or external threats of attacks, resulting in loss due to the inability of operations.
E and S	Emerging risks	Emerging risks refer to new types of business or risks that may cause adverse impact on future operations because risk identification and assessment have not been conducted, e.g. climate change risks.

## Risk management operations

Content	Description
Confirming goals	Annual goals confirmed by each unit
Risk identification	To review any risks of non-achievable goals; to categorize and describe the risk sources; to confirm their impacts.
Risk measurement	To establish risk evaluation standard: percentage and level of impact. To establish risk baseline: according to the percentage (x-axis) and level of impact (y-axis); to make risk layout diagram.
Risk response	Regarding the extremely serious and confirmed risks: to understand whether the existing mechanism of control can control the risks; to formulate countermeasure that can avoid the risks (transfer/accept/rule out).
Tracking and improvement	To track whether the aforementioned measures have effectively reduce the risks.



## Risk management execution

Apacer upholds a proactive attitude toward the promotion and implementation of risk management mechanism. On August 4th, 2021, "Risk Management Policies and Procedures" was set up and approved by the Board of Directors. In October 2021, the originally "Corporate Social Responsibility Committee" was changed to "Sustainable Development Committee"; apart from the existing ESG Implementation Team, a "Risk Management Team" which is in charge of risk assessment, response, and other operational risk management matter was added.

### The following are the operations of Apacer Risk Management Team in 2022: Convention of regular meetings

Risk Management Team meetings are convened on a quarterly basis:

Apacer has conducted risk identification, measurement, response, enhancement and tracking over the overall risks of the company on a quarterly basis.

Identification, measurement, response, enhancement, and tracking of the risks within the internal operations of the company were conducted by the senior executives and members of the Risk Management Team. The potential risks that might lead to the impossibility of goal achievement, loss, or negative impacts were identified. Based on the company's strategic goals, viewpoints of internal and external stakeholders, risk impact tolerability, and available resources, risk countermeasures were selected or risk mitigation plans were implemented first. Then, members of the Risk Management Team would continue monitoring the situation together with the relevant personnel of the operating unit. The Risk Management Team was timely reported, and relevant records were made.

The company's risk identification included but was not limited to operation risks, market risks, environmental safety and hygiene risks, financial risks, human resource risks, information security risks, environmental risks, emerging risks (such as climate change risks), and other operation related risks.

### 2022 Material topic countermeasures

Based on the risks identified in 2022 in consideration of the aforementioned table, Apacer took the top three risks of the highest incident rate/impact level and provided the following countermeasures:

ESG type	Risk type	Key issue	Problem/background description	Possible influences	Response	Countermeasure
E	Operational risk	Supply chain risk Excessive and obsolete inventor	High uncertainty in the order, resulting in high inventory and low demand, and thus, slow turnover speed.	1. Influences on capital usage. 2. Stock value loss. 3. Influences on the company's financial report.	Risk reduction	- In terms of materials with no long-term demand, the compatibility was increased through procurement re-selling or provision as alternative materials. - Orders were updated at anytime; procurement orders/amounts were canceled or delayed based on the stock status in order to reduce inventory.
E	Operational risk	Information security	Major information security incidents might severely impact on the company's operations.	1. Impacts over the company's operations. 2. Confidential information leakage and reputation damage. 3. Interruption of operations	Risk reduction	- Information security technology and management: Strengthen information security control with the PDCA cycle. IT personnel's continuing education and training regarding information security relevant skills and knowledge. Formulation and announcement of information security management measures/approaches; regular promotion of information security awareness and knowledge. - Information security back-up mechanism: Establishment and fortification of a complete D-D-T and remote back-up mechanism.
E	Operational risk	Customer credit risk	Payment could not be recovered due to customers' credit default risks.	Bad debt loss	Risk reduction	Fortification of unsecured credit risk management

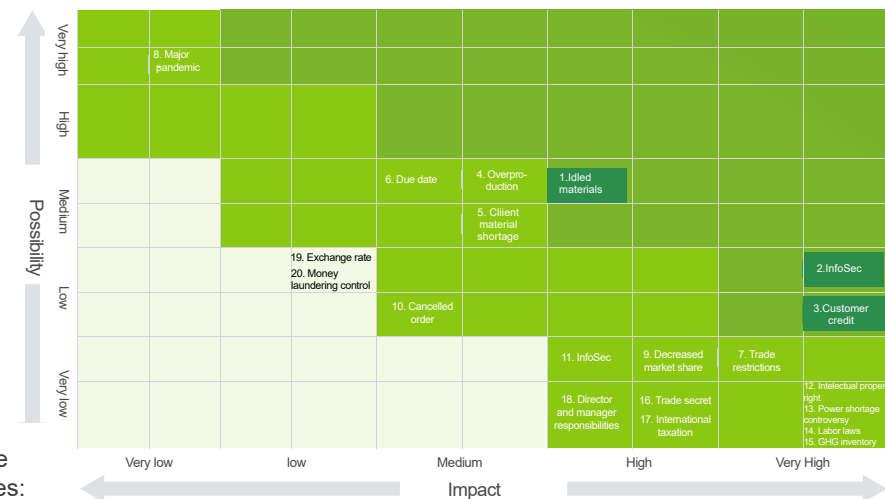
## Report to the Board of Directors regularly

Every quarter, the Risk Management Team would compile the risk management executions and assessment reports which contained the assessments of risks in various aspects as well as the description of the control and monitoring procedures of aspects with higher risks. The data would be submitted to the Sustainable Development Committee for further compilation and then, the Board would be reported with the risk management execution results.

The most recent verbal report was made by the Sustainable Development Committee to the Board of Directors on December 14th, 2022.

### 2022 Corporate risk matrix

Based on the materiality principle and risk categories, the various senior executives and Risk Management Team members conducted the company's internal risk identification and measurement which are compiled in the following risk matrix.





## Information security (major topic)

### Apacer's information security policy

In terms of information security, the Company has conducted various kinds of control measures for information assets. The category of the content include: information security management systems, employee information security management, asset categorization management, system development and maintenance, system safety management, communication network management, access safety control, weakness detection management, incident response management, continuous management of operations, and others. Modifications are made in response to new risks as well as the requirements for information security frameworks. Relevant policies would be consistent with the information disclosed on the official website. Based on these major categories, the operations of PDCA cycles are conducted, which include:

**1.Planning stage:** information asset classification and categorization; risk evaluation; risk treatment plans

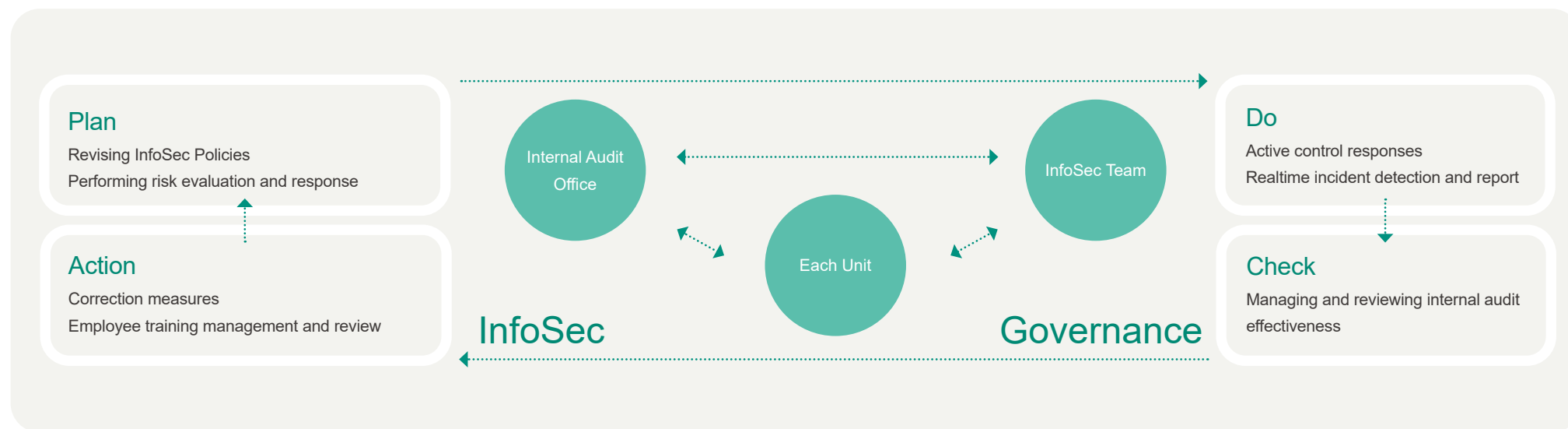
**2.Doing stage:** Operation Stage: in-depth defense, including physical entity security implementation, system/equipment security implementation, account access management; information security supervision, monitoring, maintenance and operation.

**3.Audit stage:** internal audit; information asset sampling and audit; technological defense and effective measurement.

**4.Improvement stage:** Enhancement Stage: correction and enhancement measures; management review meetings.

**5.Information security awareness:** Information Security Awareness: announcement and propaganda; information security educational trainings for new employees.

In addition, we will review the content of the information security policies annually, continue enhancing our employees' awareness of information security. By providing information security education trainings and propaganda to our employees, we intend to enhance our employees' proper understanding and knowledge, in order to achieve the purpose of safeguarding information security. For further details, please refer to Apacer's website "[Information Security Management](#)".



#### Information security goals

To ensure the correctness, integrity, and availability of the continuous operations of information security.

#### Information security management unit

To establish an Information Security Team for ensuring effective operations of information security management.

#### Information security control measures

##### Authority management

Personnel account management and verification

##### Access control

Personnel access control and management, data leakage management, personnel remote access limitation, external storage device control

##### External threats

Regular scanning and detection of malware, establishment of network firewall

##### Operation maintenance

Abnormality warning in the system operation monitoring, regular data back-up and tape off-site storage, off-site computer room back-up, regular disaster recovery drills

##### Information security propaganda

Training courses for recruits and irregular promotions of information security-related information

#### Information security management achievements in 2022

- Annual inventory of information security incidents and risk evaluation: In 2022, no significant information security incidents occurred.
- Prior planning of risk management: in response to domestic significant information security incidents, we conducted internal inventory and figure out risk countermeasures.
- Apacer continued enhancing any measures that may be beneficial for the reduction of external threat risks.

#### Information security implementation results in 2022

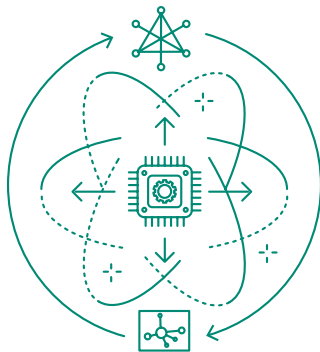
- Information security policies: Newly-added revisions of six control management documents which were then declared.
- Education trainings and announcements: Completing 4 copies of information security propaganda announcements were completed; all new employees had completed information security education trainings, achieving an accomplishment rate of 100%.
- Internal audit: Passing the audits related to information security, there was neither significant information security incidents, nor any occurrence of significant information security incidents such as violations of information security, clients' data leakage or penalties.
- Senior executives' annual report: Reporting the current situation of implementation to the Board on December 14th, 2022.

1.3

# Diversified products and operational performance

## Business strategy planning

Apacer's main business consists of memory module factories. The production lines are divided into industrial control and consumer products. Such a parallel mode is due to the violent price fluctuation of the memory industry as it is easily affected by the environment. To keep a balance, the industrial control products that are more resilient to price dropping are combined with consumer products that can rapidly reflect price differences, which can timely adjust prices and keep stable profitability. In addition, through direct communication with consumers by using consumer products, we can facilitate the accumulation of brand value and create further collaboration opportunities. To build the basis for sustainability, we started promoting top three business momentum in 2021. To improve business performance, in 2022, we conducted a stock-for-stock acquisition of UDinfo which was also an industrial control memory module factory, to have private equity placement with the strategic investor "Acer" company. This was aimed at building the fourth momentum - the strategic partnership alliance. We expect to continue firing up these four major momentum in 2023.



### Short-term business strategies



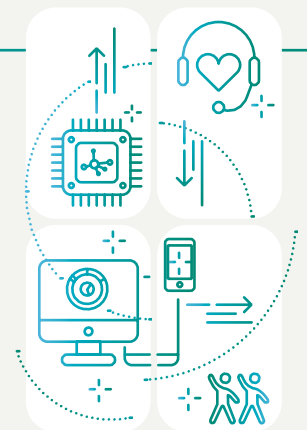
Focus on our core business - develop smart IoT market proactively

Apacer continues focusing on its main business - the development of digital storage. By deepening the core products and R&D technologies, we keep cultivating focal markets. At the same time, we continue developing the field of smart IoT applications so that we can be in line with the trends. In this way, we can further provide value-added benefits for our customers and collaborative partners, to j enhance business performance together.

### Long-term business strategies

With the vision "pioneering the technicalized information services integration based on digital storage as the core", in addition to the continuous investments on ESG to fulfill our corporate social responsibilities, we are also very proactive in the layout of the four business growth synergies.

- Focusing on key fields: The focus is placed on particular applications in the markets that have high value and high customization demand.
- Deploying future technologies: Value-added services, 5G, cloud applications, and remote smart management are integrated.
- Operational digital transformation: Decision-making effectiveness are enhanced, in order to optimize production capabilities and create further competitive advantages.
- Strategic partnership alliance: Seeking for excellent partners to form an alliance and expand business benefits.



## ● Products and services

Apacer's products and services encompass three major categories, namely "B2B industrial control products", "B2C consumer products", and "smart IoT applications".

### B2B industrial control products

A series of stable and durable digital storage solutions exclusive for vertical application market design, such as industrial and cloud data centers, vehicle-use, military spec, gambling, health care, etc.

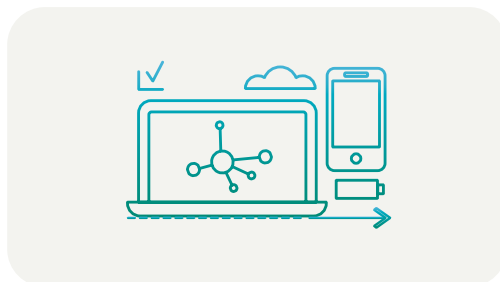


#### To provide integrated solutions to solve problems

Apacer provides services to more than thousands of customers around the world, which is why we are equipped with rich experience in industrial control products and R&D. We assist customers in solving their problems by means of our abilities in integrations and technologies, and further provide them with trustworthy products and services. Together with our partners, we offer integrated solutions and establish profound partnership relations with customers. We have been ranking the top 1 among global industrial SSD suppliers for five years in a row.

### B2C consumer products

In consideration of consumers' life experiences, we have designed a whole series of digital storage products and mobile peripherals, such as SSD and memory modules. We also provide high-end gaming product lines in order to satisfy information storage and protection needs.



#### Satisfying consumers' needs

Apacer has many years of R&D experience in digital storage products, including memory modules suitable for computers, flash drives or memory cards, SSDs, or military-grade external storage devices. In addition, we offer ZADAK which is suitable for high-end gaming players. With its highly recognizable gaming products, machines, and components, etc., we build a high-end brand image so that we can satisfy our consumers' needs for digital storage with diversified products and designs.

### Smart IoT applications

We offer services such as IoT environmental control systems and design, integration and implementation, optical instruments selling, OEM and more, so that we can be by your side on the first mile of smart IoT innovation.



#### Smart IoT landing partner

With the integration of ICT and OT, we offer basic AIoT planning and smart automation construction services through the business model of overall solutions. In addition to the active promotion of IIoT proactive disaster prevention system, we also offer in-depth development of overall solutions for AI+AOI. Through the one-stop service, our clients can shorten their development time for smart IoT.

## ● Product examples

Example: 360° Multiple Size Bottle Detector



### Market challenge

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During the manufacturing process of plastic pharmaceutical bottles, defects may appear on their external appearance, such as stains, indentations, or impurities on the body, mouth, or bottom of a bottle. Currently, human eye detection is the common method in the industry used for screening and inspecting defects. However, long-time staring may cause an inspector to suffer from visual fatigue or attention loss, which may result in erroneous inspections. This will affect the overall production efficiency and even increase the risk of customer complaint.

### Solutions

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Thus, Apacer planned and manufactured the "360° Multiple Size Bottle Detector" for the pharmaceutical bottle factory. The Inline add-on method is integrated into the production line so that the entire production process will not be interrupted. It can also increase production efficiency as it is fully automated, without the need of manual loading/unloading, so as to reduce manpower for this part.

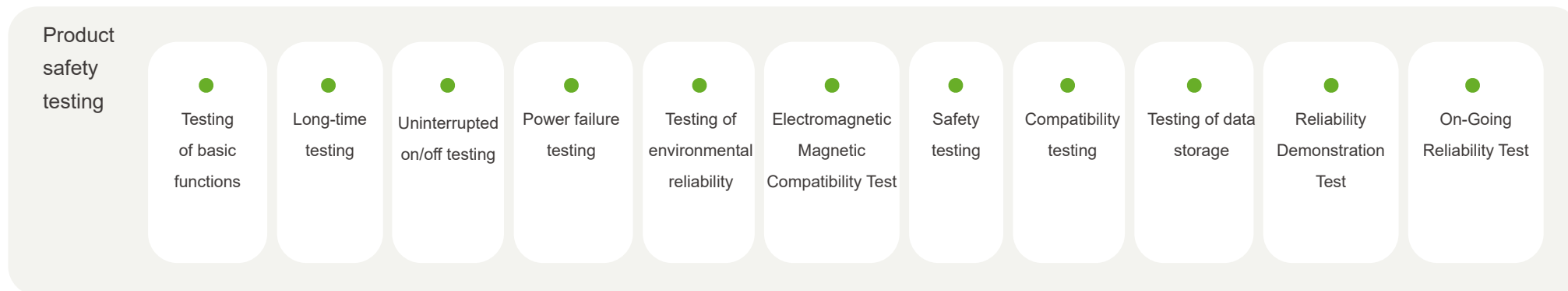
### Results

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It is a high-C/P smart AOI (Automated Optical Inspection) equipment customized for customers to detect any abnormality. It can effectively assist the pharmaceutical bottle manufacturer in increasing overall production efficiency, to reduce manpower and operation costs, which is helpful to them in advance toward the path of building a smart factory.

## ● Product quality guarantee

We believe that quality assurance is the basic promise given to our customers. In terms of product quality, Apacer adopts the highest specifications, from product R&D, design, and service life to after-sales services, all of which have undergone stringent and meticulous planning, inspection, and multiple rounds of safety testing. This aims to guarantee higher efficacy and stability of our products.



All Apacer products are in compliance with EU RoHS, REACH Regulation on the banning/restriction of hazardous substances, and WEE (Waste from Electrical and Electronic Equipment) in order to provide low-hazard and low-toxicity products to our customers. We promise to abide by international conventions, as well as all the laws and regulations related to domestic environmental production and safety and hygiene.



## ● Product label

The products sold by Apacer comply with the laws and regulations of different countries and regions. They come along with conformity labels as well as complete product information, such as manufacturer, contents, use instructions, international certification and labels, and others. We use an open and transparent way to guarantee consumers' rights and benefits.

Depending on the region, Apacer also conducts EMC testing. Only the approved products are allowed to be sold in different countries. This ensures the stability and safety of product use. Such testings including Taiwan BSMI, US FCC, EU CE, New Zealand and Australia RCM, and Japan VCCI. The regulatory symbols and labels are marked on the product body.

EU RoHS Restriction of the use of certain hazardous substances

**RoHS**

EU WEEE label for product recycling



Taiwan  
BSMI



US  
FCC



EU  
CE



Australia &  
New Zealand  
RCM



Japan  
VCCI



UK  
UKCA

## Major Topic Financial performance

Apacer focuses on the key operating fields and promotes digital transformation in operations. In an industrial environment with rapid changes, real-time strategic adjustments allow the company to maximize its benefits. In 2022, the company's operating synergy was elevated through the strategic partnership alliance, resulting in an increase of 1.32% in total operating revenue and 2.46% in gross profit margin compared to the year of 2021.

NTD\$Thousand

	2022	2021	2020	2019
Operating revenue	8,797,035	8,682,393	7,152,222	7,485,821
Operating costs	-7,108,621	-7,229,509	-6,026,320	-6,085,578
Operating margin	1,688,414	1,452,884	1,125,902	1,400,243
Operating profit	694,122	573,060	345,419	483,595
Profit after-tax	576,991	485,781	290,460	376,629
Earnings per share (NT\$)	5.23	4.81	2.88	3.73

Note 1: The financial data originate from the Annual Consolidated Financial Report, which has been reviewed and certified by accountants. Operating income refers to the sales income in the industry.

Note 2: The 2022 data include the data from UDInfo.

NTD\$Thousand

Item	2022
Operating revenue (A)	8,863,411
Distributed economic value (B)	8,244,778
Operating cost	6,946,973
Employee wages and benefits	859,203
Accounts payable to investors	301,124
Accounts payable to governments by country	137,379
Social investment	99
Retained economic value (A) - (B)	618,633

The operating revenue in this table includes sales revenue and non-operating revenue according to the GRI standard, which presents a slight difference with the definitions of the above-mentioned table.

## Overlooking the world from Taiwan

Apacer's customers range from global distributors, information equipment manufacturers, system integrators, and retailers. Our sales networks cover five continents throughout the world. Through a comprehensive distributor system and collaboration partners, we cultivate markets in different areas, providing digital storage application products and integration services that have high-efficiency, high-stability, and high-value. In pursuit of perfection, we share memory with the world.

### Sales area ratio of main products

Sales area	2022
Domestic sales	20.76%
America	14.06%
Europe	19.53%
Asia	44.61%
Other	1.04%
Total	100.00%

Notes: The above-mentioned data include the data from all the subsidiaries.

# major topic R&D innovation

With the advantage of innovative leadership, Apacer recruits excellent talents in the industry. We carry out proactive planning of on-the-job trainings, enable team members to cultivate their ability of innovative thinking, to demonstrate their potentials and value. Our R&D Technical Center takes the lead for the innovation of brand value projects, as well as other projects conducted with the strategic partners. We create win-win performance with diversified thinking, achieving the goal of making advancement together with our partners.

“Pioneering the technicalized information services integration based on digital storage as the core” is Apacer’s business vision, as well as the basis for the development of digital storage. We continue accumulating synergies for product and technology R&D, piling up our business competitive advantages.

## ● Accumulating sustainability synergy with R&D

Apacer is committed to carrying out our brand’s core value “Becoming a Better Partner” through “Delivering on Our Promise, Constant Improvement, Mutually Beneficial”. We continue developing and innovating comprehensive storage solutions as well as the integration services for the software, hardware, firmware, design, and technical research in various fields, hoping to become the best alliance partner in the industry’s ecosystem, to mutually create value-added benefits for all services.

The R&D Technical Center has holistic R&D development technology units, including Firmware R&D, Hardware R&D, Software R&D, Engineering R&D, Testing R&D, Industrial Design, Mechanism Design, Technical Support, Application Engineering, Product Verification, etc., all of which enable us to create much more competitive products and services, through our many years of successful experience accumulated in digital storage patent technologies and R&D. In addition to satisfying the diversity and enrichment of our production lines, the R&D team can also fulfill customers’ developments and demands for customization, including the solutions for memory modules, industrial SSDs, consumer-based digital storage products, IoT-integrated applications, etc.

Based on the planning for sustainable development, Apacer reviews and decides annual budget allocation depending on R&D technique needs. The investments in R&D are obvious through the trends of R&D budgets. As shown in the analyses in the following diagram, we can see that the input investments of R&D expense of 2022 increased by 19%, if being compared with that of 2021. Such a ratio would even increase by 41% if being compared with that of 2019. As for the percentage of R&D expenses in operating income, it increased by 1.57% in 2019 to 1.88% in 2022, which, compared with that of 1.60% in 2021, reflects an increase of 0.28%. Our R&D capability has surged after successful cultivations, reaching 235 patent applications and certifications, including 186 accredited patents and 49 pending applications. With this successful mode, Apacer will continue investing further resources in R&D development and innovative design, making it a stable cornerstone for sustainable operations.

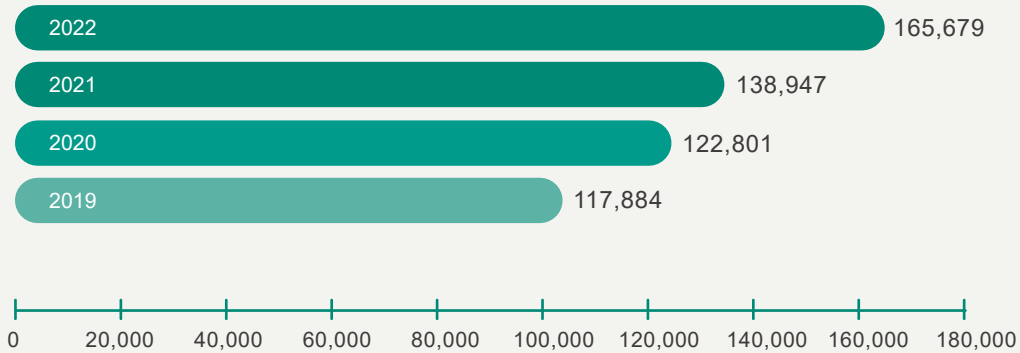
## ● Competitiveness of innovative value

Apacer’s R&D Technical Center is a R&D development technology unit with comprehensive functions. Our cultivation in patented technologies will contribute to value-added technologies and services, so as to create highly competitive products. Aiming at the gradual growth in market share, the differentiation advantage of value-added innovative products is also the best backup force for the Company’s strong competitiveness.

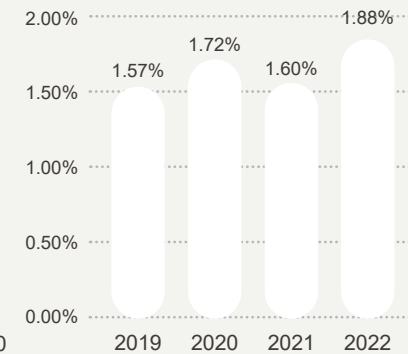




Historical R&D expenses ( Unit: NT\$/Thousand )



Historical percentage of R&D expenses



Year	2019	2020	2021	2022
R&D expenses (NT\$/Thousand)	117,884	122,801	138,947	165,679
Operating revenue (NT\$/Thousand)	7,485,821	7,152,222	8,682,393	8,797,035
R&D ratio (%)	1.57%	1.72%	1.60%	1.88%

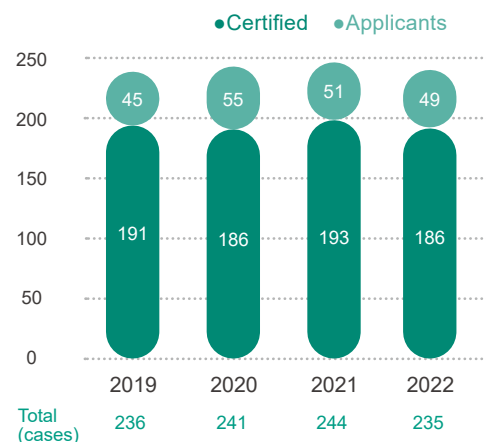
Note: The 2022 data does not include the data from UDInfo.

## ● Deploying future technology through patents

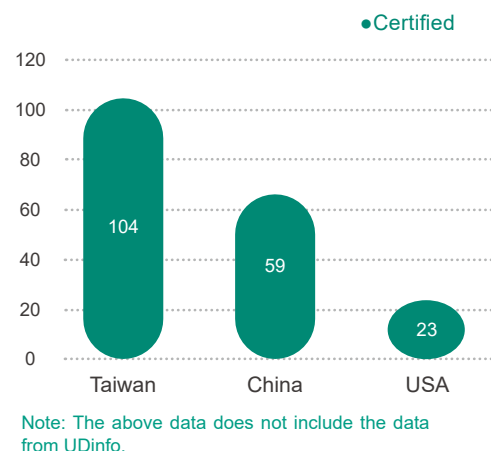
To fortify the R&D synergy, Apacer officially set up a Patent Development Committee in 2017, with the General Manager as the Chairman. It includes a Patent Review Team that conducts internal invention patent review. In addition to including performance evaluation based on the number of patented R&D, we also provide incentives for patent outputs in order to encourage colleagues to focus on patent commercialization. In Apacer, patent engineers are employed for patent management, application, and maintenance. In terms of the products under development, they also provide advice regarding infringement or enact the strategies for avoidance design at the same time, a patent map is created and offered to competitors for patent application information. This allows us to learn about competitors' development domains or patent application status.

## ● R&D achievements

Historical statistics of patent applications and certification



Statistics of patent certification classification in 2022



Patent innovation achievements

- SSD with Knob Structure - Storage device with switching sector function (Taiwan and China)
- SMART Update Firmware - SSD system (Taiwan and China)
- Storage Device integrated with Heat Dissipation Module equipped with Storage Unit - Data storage device with double-layer circuit board (Taiwan and China)
- Smart Detector - Visual detection system for continuous objects (Taiwan and China)
- Ball Bearing Retractable Structure - Clamping device for parallel objects (Taiwan and China)
- Sensing Panel Display Device - E-paper device and its extension (Taiwan)
- Storage Device with Multiple Backup Mechanism - Backup restoration and the device (Taiwan and China)
- Storage Device with Circular Backup Mechanism - Circular backup method and relevant solid-stage hard disk (Taiwan, China and USA)

Until the end of December 2022, the total number of Apacer's patents has reached 235, of which 49 are pending applications and 186 are certified and under effective maintenance. During recent years, the overall trend of patent certification has become more stable. Compared to the previous year, in 2022, some Chinese patents were transferred to third parties due to the discontinuation of maintenance. Thus, the total number is slightly lower than the figure in 2021. On the other hand, in terms of Apacer patents categorized by country in 2022, Taiwan has obtained a relatively large amount of patent certification, followed by China and the USA. Compared to the previous year, the situation was almost the same.

Product and technology R&D innovation achievements

- |   |  |
|---|--|
| 1.100K Rewritable 3D NAND SSD                             | 9.CoreAnalyzer2 Rugged Level Edge Computing                  |
| 2.DataDefender™ PCIe Gen4 x4 SSD                          | 10.PANTHER RGB DDR5  |
| 3.Care/Environmental Safety Dual-field Smart Upgrade      | 11.Rugged Industrial SSD                                     |
| 4.ZADAK SPARK RGB DDR5                                    | 12.FIPS140-2 Data Encryption Certified SSD                   |
| 5.JEDEC Raw Card Revision 1.0                             | 13.Rugged National Defense Series SSD                        |
| 6..Audiovisual/Game M.2 PCIe SSD                          | 14.iKeep -QuizeSlide   |
| 7.Apacer-ASUS Cloud for Building IPC Information Security | 15.4TB Gen4 x 4 SSD  |
| 8.Smart IoT Care Site Solution                            | 16Automatic Detection System with Optical Detection Solution |

## ● Industry-related associations

To fortify our sensitivity towards market context and trends, Apacer has joined different industry-related associations, which are listed in the below table. In this way, we can be in line with industrial relevance and expand further business opportunities.

Participating association	Participation mode
Taiwan Stock Affairs Association	Member, attending the meetings and seminars of the association irregularly
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 (Compact Flash 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.com	Member
Intelligent Computer & AIoT Association	Member, attending the meetings and seminars of the association irregularly

## Chapter II

# A Better Partner for Green Environment

### Vision

To fulfill social responsibilities and protect the environment on Earth, Apacer has introduced an environmental management system, set the Supplier Management Code, promoted green product design, and implemented internal environmental protection education, internalizing the environmental protection philosophy into the overall value chain of the Company. From the top-down "policy" and bottom-up "actions", Apacer put the green and sustainable business philosophy into real practice.

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### Policies and promises

Apacer has formulated and complies with the Environmental Safety, Health, and Energy Policy: "regulatory compliance, pollution prevention, participation in consultation, risk control, green design, continuous improvement, and eco-friendliness". By following this policy, we provide on-time delivery of competitive and flawless products and services that do not contain hazardous substances, for satisfying our customers' needs.

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## Major topics of this chapter

Major topic

Environmental regulation compliance

Impact description

The compliance of environmental regulations can reduce negative impact on production processes in the environment. In addition to reducing operating risks, it can also echo with the international appeal for a sustainable Earth.

Potential negative aspects: Violations of laws and regulations may result in fines and relevant sanctions which will lead to the increase of operating costs while jeopardizing corporate reputation; as the company is near the future social residence, the surrounding noises may affect the tranquility of the community.

Policy promises

To comply with the domestic laws and regulations regarding environmental protection and energy management and to effectively control relevant information through the environmental management system in order to achieve “zero tolerance” in regulatory violations.

Actual action plans

Goals of 2022

Effectiveness tracking

Management actions/  
Prevention and remedy measures

Legal and regulatory updates were inquired every quarter in order to be in compliance with domestic laws and regulations regarding environmental protection and energy management.

Noise cancellation engineering in the compressor room, in order to comply with the specification required by the Letter Huan Shu Kon Tzi No. 1060061760.

0 violations	0 violations
Completed in October.	Completed in December.
Things Accomplished	

Stakeholder Engagement

	Communication method	Frequency	Complaint mechanism
	Education trainings and courses	1-2 time(s) per year	Suggestion box for employees Dedicated person for making inquiries Ext. #5660
Customers	ESG Sustainability Report	Once a year	Satisfaction Questionnaire Survey

Assessment methods

Short-term goals (2023)	- No violation of environmental protection laws and regulations	- Sustainable Development Committee's quarterly review meetings - Zero violation of environmental protection laws and regulations
Mid-term goals (2023-2025)	- To implement environmental management policies - No violation of environmental protection laws and regulations	
Long-term goals (2026)	- No violation of environmental protection laws and regulations	

Sustainable Development Goals of the United Nations

6.3 By 2030, improve water quality by reducing pollution, eliminating waste dumps and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and then substantially increasing recycling and safe reuse worldwide by x%.

13.3 In terms of climate change mitigation, adaptation, impact reduction and early warning, improve education, awareness-raising and human and institutional capacity.





## Major topics of this chapter

### Major topic

#### Impact description

Excessive GHG emission leads to global warming and climate change, which will then cause changes in the environment and probably in the supply chain, operation locations, etc.

Real positive aspects: In response to the domestic regulatory requirement of GHG inventory, the scope of disclosure was extended while proactive management strategies were adopted.

#### Policy promises

Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
Management actions/ Prevention and remedy measures	Suppliers were encouraged to conduct independent GHG inventory	Supplier(s)' reply on the willingness 2	Supplier(s)' reply on the willingness 2
	Information checking for ISO 14064-1: 2018 Greenhouse Gas Inventory at Organizational Level - Part 3	Checking completed	Checking completed in Q4
	Self-assessment and inspection of the management system for ISO 14064-1: 2018 Greenhouse Gas Inventory at Organizational Level	System assessment and inspection were completed	System assessment and inspection were completed in Q4
			Things Accomplished

		Frequency	Complaint mechanism
Employees	Environment Team's tracking meetings	Regularly on a monthly basis	Internal official website Hii
Customers		-Annually -Irregularly	Secretariat, Sustainable Development Committee
Suppliers			
Shareholders	Submit to the shareholders' report	Once a year	Shareholders' meetings

#### Sustainability goals

#### Assessment methods

Short-term goals (2023)  
-Internal course of ISO 14064-1: 2018 will be held in Q2  
-In line with regulatory requirements

Mid-term goals (2023-2025)  
-Completion of third-party validation on ISO 14064-1 Greenhouse Gas Inventory at Organizational Level-To assess solar energy panels or green renewable energy  
-In line with regulatory requirements

Long-term goals (2026)  
-In line with the regulatory requirements

To obtain ISO 14064-1 certification reports

#### Sustainable Development Goals of the United Nations

13.3 In terms of climate change mitigation, adaptation, impact reduction and early warning, improve education, awareness-raising and human and institutional capacity.




## Major topics of this chapter

Major topic				
Green product design				
Impact description				
The green concept is implemented on production process, from design to manufacturing, in order to meet the goal of continuous production of eco-friendly products, hoping to create a green industrial chain.		Real positive aspects: The information about environmental impact caused by different substances is collected through existing channels, such as scientific research, suppliers, customer feedback, international agreements and conventions, laws and regulations, as well as non-governmental organizations, resource recycling, and Apacer's internal experimental testings. The components with low-environmental impacts will be selected, to fulfill the goal of producing eco-friendly products. Potential negative aspects: It is not so easy to find the sources of alternative raw materials for product R&D, which may result in increasing manufacturing cost and then decreasing market competitiveness.		
Policy promises				
-To comply with the international regulation RoHS and HF material specifications, electrical reliability is verified by a third-party laboratory, for complying with CE, FCC, UKCA and other international protocols, and then corresponding reports will be provided to customers.		- Products are in compliance with the product specifications regulated by JEDEC Solid State Technology Association. - The plastic package materials in compliance recyclable specifications will be marked with the label "Recycle" I. - Product designs are in compliance with the development procedure P-FLOW; relevant development and manufacturing should also be in compliance with this procedure management.		
Actual action plans		Goals of 2022	Performance of 2022	Effectiveness tracking
Management actions/ Prevention and remedy measures	Introduction of e-Paper products	100 pcs	177 pcs	Things Accomplished
	Carton box recycling and reutilization	3000 pcs	3,144 pcs	Ongoing
	Tray recycling and reutilization	3000 pcs	290,847 pcs	Ongoing
	Halogen-free components are used in all industrial control DDR5 products	100% using halogen-free components in DDR5	100% using halogen-free components in DDR5	Things Accomplished
	Halogen-free housing used in consumer USB products	Halogen-free housing introduced to new models	AH25B	Things Accomplished
Stakeholder Engagement				
	Communication method	Frequency	Complaint mechanism	
Employees	- Customer satisfaction questionnaire - survey Apacer's official website	Once a year	Apacer 's official website Communication via e-mail or telephone	
Suppliers	- Supplier conference Supplier - Supplier satisfaction questionnaire survey	Once a year	APG system Communication via e-mail or telephone	
Sustainability goals			Assessment methods	
Short-term goals (2023)	- Introduction of green packaging design - Introduction and full implementation of PCR (Post-Consumer Recycled material) plastic recycled materials - Introduction of fully lead-free resistance			- Quantity of the products introduced - Ratio of products using green packaging - Ratio of green product design
Mid-term goals (2023-2025)	-To adopt more recycled raw material packaging, to 50% -100% of green product design -To reduce environmental pollution during production progresses			
Long-term goals (2026)	-Green packaging will be introduced to all products -100% of green product design			
Sustainable Development Goals of the United Nations				
6.3 By 2030, improve water quality by reducing pollution, eliminating waste dumps and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally by X%.				
13.3 In terms of climate change mitigation, adaptation, impact reduction and early warning, improve education, awareness-raising and human and institutional capacity.				



## Major topics of this chapter

Major topic					Sustainability goals		Assessment methods			
Raw material management					Short-term goals (2023)		<div>- As the version of APG system has been revised to make optimizations based on the regulatory updates and customers' needs, for fortifying the system's automatic inspections.- Introduction of fully lead-free resistance</div> <div>- To hold the Annual Suppliers' Meeting to implement and promote relevant laws and regulations as well as AGP system operation.</div> <div>- The revised version of AGP is to be launched by the end of 2023.</div> <div>- Satisfaction degree about the Suppliers' Meeting.</div> <div>- Lists with the recovery rate of the complete new material and compositions.</div>			
Impact description					Mid-term goals (2023-2025)					
The ratio of renewable raw materials and the recycle ability of packaging materials are increased,in order to achieve the spirit of circular economy.					80% of recovery rate in the list of new material composition					
Policy promises					Long-term goals (2026)					
The RoHS Directive has been fully introduced to manufacturing process and material management in conformity together with REACH and relevant regulations from the client side. Audits are conducted to the part, and component suppliers are also requested to provide Environmental Protection Commitment Statements, in order to ensure that the source materials are in compliance with the regulations. The information control and management system is established through Apacer Green Product Web System. The management policies and procurement standards are communicated in the Suppliers' Meetings in order to effectively manage the use of raw materials.					100% of recovery rate in the list of new material composition					
Actual action plans					Goals of 2022		Performance of 2022		Effectiveness tracking	
Management actions/		Control with the substance component list in APG system	475 recycled	475 recycled	Things Accomplished					
Prevention and remedy measures		Convening an Annual Suppliers' Meeting, fo communication the management policies	Suppliers' attendance rate: 80%	Suppliers' attendance rate: 80%	Things Accomplished					
Stakeholder Engagement					Communication method		Frequency		Complaint mechanism	
Employees		E-mails and telephone communication	Non-periodic	E-mails and phone call complaints						
Suppliers		Supplier conference	Once a year	Procurement personnel of the company						



Major  
Topic  
2.1

# Environmental commitment and legal compliance

Apacer complies with the environmental safety/hygiene and energy policy of "regulatory compliance, pollution prevention, participation in consultation, risk control, green design, continuous improvement, and eco-friendliness", without using any substances that may jeopardize or damage the environment. Also, through the proper utilization of existing resources through energy saving, carbon reduction, and resource re-utilization, we can reduce resource consumption. It is the Company's operating goal to "become a renowned green enterprise".

## Apacer's promises on environmental protection



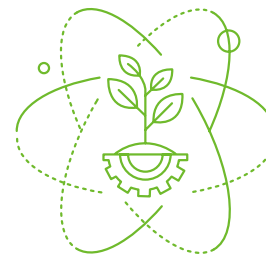
### Legal

To inquiry regulatory updates every quarter and comply with the domestic environmental protection and energy management laws and regulations; in 2022, there were no administrative sanctions regarding environmental protection.



### System

- To systematically manage the negative environmental impacts from the manufacturing process and products through ISO 14001: 2015 Environmental Management System.
- To comply with the international environmental protection standards on electronic products as well as the HSF (Hazardous Substance Free) Policy in the purchases and manufacturing processes; to introduce IECQ QC 080000: 2017 Hazardous Substance Process Management.
- To promote and implement the requirements of RoHS 2.0.
- 100% not using any metals from conflict-affected and high-risk areas.



### R&D

To develop green products, starting reducing resource usage from the stage of product design.



### Actual actions

- Carbon reduction goals are set up and then being reviewed annually.
- In the Headquarter, the air-conditioning systems from 1F~6F have been replaced to be water-cooled systems. which is a reduction of 60% of air-conditioning power consumption compared to 2021.
- To hold educational trainings on employee environmental protection for our employees every year, strengthening employees' awareness of eco-friendliness and energy saving.
- To set up short-term, mid-term, and long-term environmental sustainability goals, in order to keep improving our green and sustainable actions..

## ● Introduction of environmental management systems

Along our way of advancement towards green enterprise, Apacer has introduced ISO 9001:2015 - Quality management systems and ISO 14001 : 2015 - Environmental management system. By following the Plan-Do-Check-Act Cycle (P-D-C-A), we ensure that all stages of the operations and productions conform to the policies and regulations and meet the existing goals. With this systematic management methods, we ensure the quality and the environmental protection guarantee of the products, reducing the negative impacts of the products and their manufacturing processes on the environment.

### Apacer's P-D-C-A cycles in environmental management system

#### Plan

##### Environmental impact inventory and action plan

To conduct environmental impact inventory in all plants and factories; to analyze environmental impact on the work flows; to formulate environmental protection action plans.

#### Do

##### Actual operations

Based on the action plans, different departments and divisions have implemented the environmental protection action plans, including : waste reductions in plants and factory areas, reduction of product packaging, office eco-friendly actions, and others.

#### Check

##### Performance review

To monitor and measure the performance of various kinds of implementation, in order to make sure that the goals of environmental protection have been achieved.

#### Action

##### Continuous improvement and management

Based on the differences between goals and performance, deficiencies were improved and various actions were refined; the goals of the next stage were set



### Management system

ISO 9001 : 2015  
Quality management system

### Main management item

To ensure that all customers obtain products and services of consistent outstanding quality.

### Action and performance

To strictly control and manage product quality and track these aspects through the MES product traceability system.



### Management system

ISO 14001 : 2015  
Environmental management system

### Main management item

Based on the mindset regarding product life cycles we keep a balance between environmental protection and changes in the socio-economic environmental conditions.

### Action and performance

- To establish a risk-oriented mindset in terms of environmental management, as well as the perspectives based on life cycle.
- To ensure that the inclusion of environmental requirements in the different life cycle phases, including product design and manufacturing.



### Management system

IECQC QC 080000 : 2017  
Hazardous Substance Management System

### Main management item

Raw materials are in compliance with EU RoHS and REACH regulations.

### Action and performance

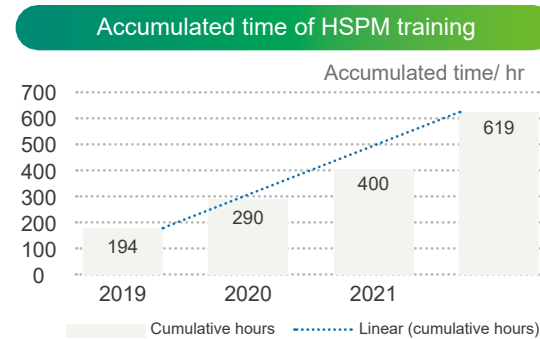
Raw material suppliers should sign the environmental protection commitment statements provide raw material testing reports and fill substance surveys.



## ● Environmental protection education and training for employees

To internalize environmental protection and energy-saving awareness in the staff, apart from the announcements that transmit new knowledge made from time to time, there are also physical courses to strengthen environmental protection and energy-saving knowledge and trends, making sure that all personnel are in line with the professional environmental protection knowledge and accomplish eco-friendly product design.

New employees	Product design relevant personnel
<b>Training</b> General courses on environmental	<b>Training</b> Hazardous Substance Process Management (HSPM) training
<b>protection and energy-saving</b> - 100% of course passing rate - In 2022, every new employee had 45 hours of training	<b>Training results</b> - 100% of annual training passing rate - In 2022, the accumulated training hours consisted of 619 hours



**Environmental protection expenses**

Environmental protection expenses in 2022

Item	Amount (NTD)
Environmental management system validation cost	100,643
Production equipment and facility improvement	6,410,334
General business wastes	322,000
Hazardous commercial wastes processing	274,428
Operation environment testing	101,010
Hygiene inside and outside the office area	2,593,450
Environmental greening	13,943
<b>Total</b>	<b>9,815,808</b>

Note: The above data does not include data from UDinfo.



# Climate Change Risk Management

In response to the possible risks and impacts caused by climate change, Apacer has taken the Financial Stability Board (FSB)'s Task Force on Climate-related Financial Disclosures (TCFD) framework as a reference to conduct the identification and management of climate change risks and opportunities.

## Management strategy and action plan

### Governance

- Sustainable Development Committee: Apacer's highest climate change risk management organization, presided by the Chairman as the Chief of the committee. Climate change-relevant work executions and plans are reviewed on a quarterly basis and reported to the Board of Directors every year.
- Environmental Care Team: Affiliated to the Sustainable Development Committee, responsible for planning and promotion of climate change contingency works.

### Strategy

- The different departments work on climate risk identification and conduct cross-departmental meetings to discuss key climate change risks and opportunities.

### Risk management

- Based on TCFD framework, among the identified climate risks and opportunities, factors that have great impact on Apacer are underlined.
- Based on climate risk identification results, measures like risk prevention and management indicators are set in advance.
- Climate risk identification and assessment are included in the operational risk management

### Target and Goals

- GHG emission inventory performed every year.

## Execution



- Power-saving equipment updates were implemented and monitored; energy-saving efficiency was traced after the equipment updates on a quarterly basis.
- Implemented and monitored the rehabilitation of power-saving equipment, and the power-saving benefits as equipment rehabilitation are tracked quarterly

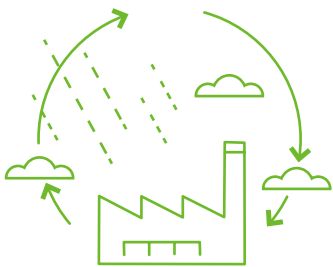
- The Environmental Care Team planned different projects and coordinated cross-department works to promote energy-saving and carbon reduction activities based on the climate change risk assessment.

- Cross-departmental meetings were held to discuss the identified climate-related risks and opportunities and assess the impacts that may have on the company's finances.
- The Sustainable Development Committee was reported with the probable impacts resulted from the climate-related risks and opportunities identifications.
- For further details, please refer to Chapter I "Organizational Risk Management Policy" of this report.

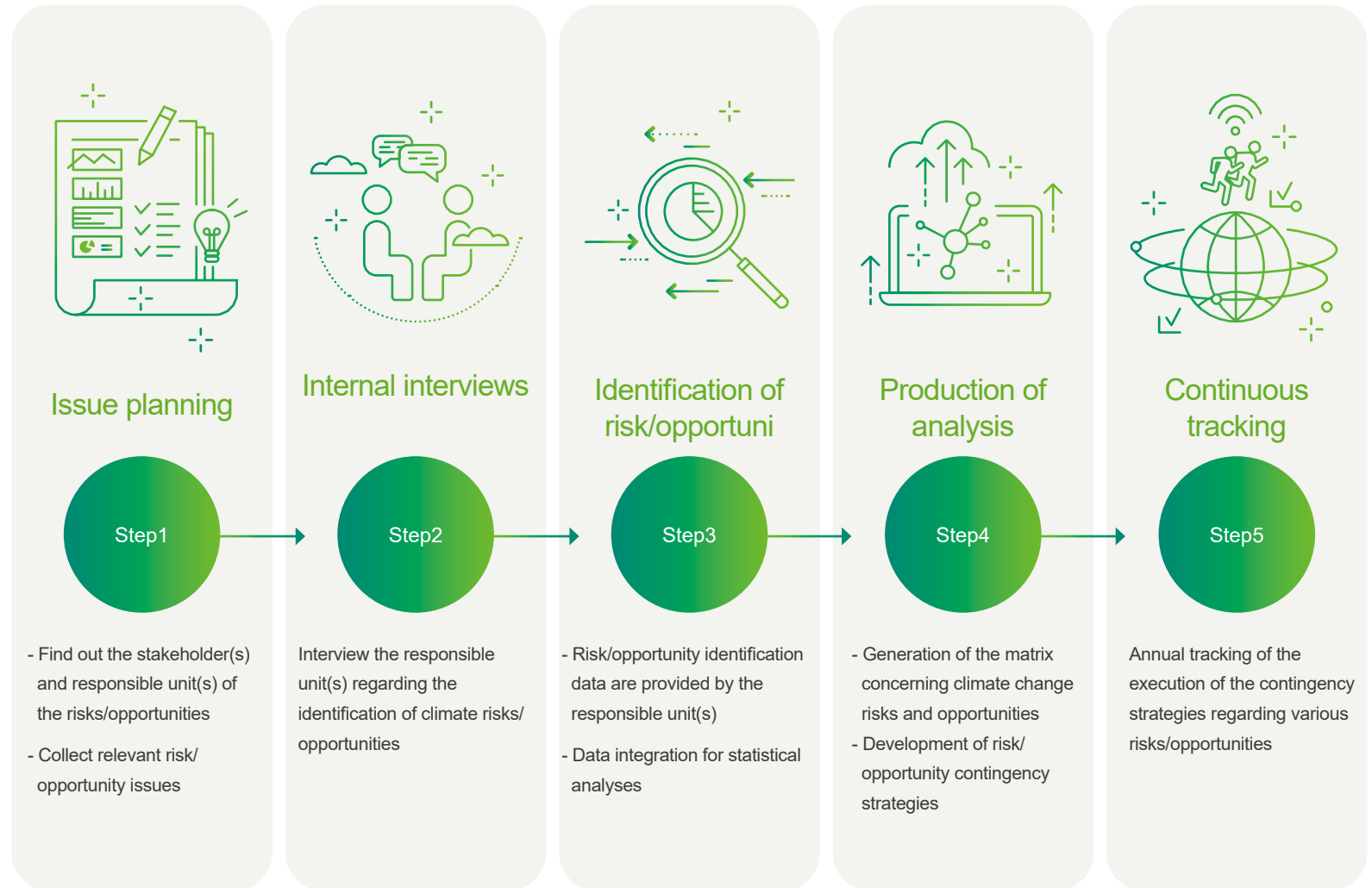
- Energy-saving measures are still in implementation in order to reduce scope-two carbon emission. For further details, please refer to ["2022 Energy saving and improvements"](#).
- Based on the results of GHG inventory, energy saving and carbon reduction measures were planned and presented to the Sustainable Development Committee who should periodically review the performance.

## ● Climate risk matrix

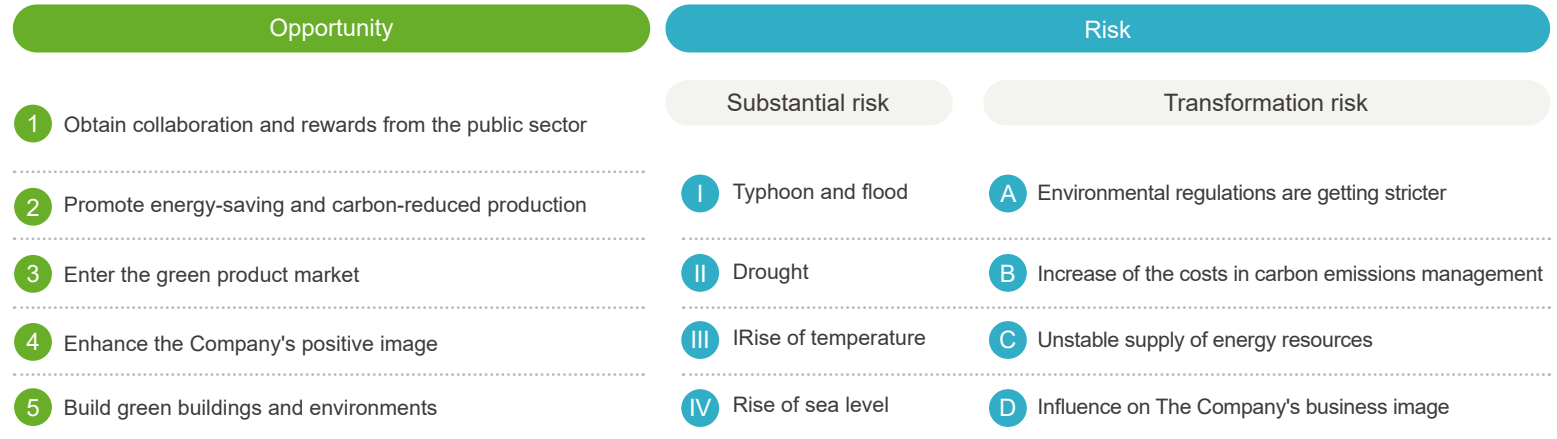
To learn about the possible risks that may result from climate change, Apacer has conducted identification and made priorities for climate-related risks/opportunities based on TCFD, having a better comprehension of the possible impacts of the risks/opportunities. Climate change research reports published by international organizations were taken as reference and then combined with the climate risk and opportunity matrix. The Company's business operation policies include sustainable operation plans in terms of energy-saving, carbon reduction, and water saving. As for risk identification, the significant impacts of relevant risks were identified, through "impact degree" and "possibility of occurrence",



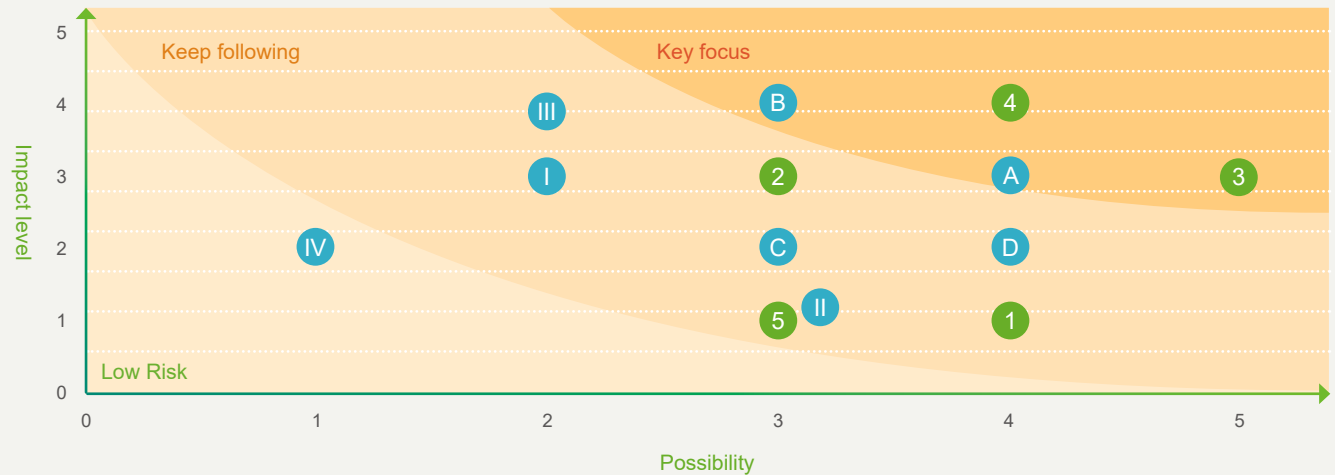
### Risk/opportunity identification process



## ● Climate Change Risk and Opportunity Matrix



Risk type	Risk level (Note 1)	Apacer's management method
Key focus	Below 2 scores	Formulate countermeasures and review the situations of strategy implementation every year
Keep following	Above 9 scores	Collect relevant domestic and international news and international cases actively; review the issue every year
Low risk	3 ~ 8 scores	Keep observing



Note 1: Impact Degree- Very high 5 / High 4 / Moderate 3 / Low 2 / Very low 1; Possibility of occurrence - Very high 5 / High 4 / Moderate 3 / Low 2 / Very low 1.



## Risks and Opportunities

In 2022, as a result of the climate-related risk/opportunity identification, Apacer found 2 major climate risks and 2 major climate opportunities as key focuses. Based on the nature of risks and opportunities, contingency strategies were proposed. Regarding the risks, we tried to have them under control as early as possible, in order to reduce the potential negative impacts in the future. Regarding the opportunities, we have invested resources and made plans in advance, so that we can master the business opportunities that climate change might bring.

Risk/opportunity type	Risk description	Impact degree on finance (direct/indirect)	Major potentials Description of the impact on finance	Contingency strategies
Risk	Risk 1 Statutory policy	Direct	Addition of sustainability-related norms and regulations	In response to regulatory requirements, the cost may increase for the organization, such as green power certificate subscription.
	Risk 2 GHG and carbon emission	Direct	Increase on the cost of GHG emission	In response to the Climate Change Response Act, the Company should purchase energy production equipment or energy-saving facilities, which may increase business operation costs.
Opportunity	Opportunity 1 Promote energy-saving and carbon-reduced production	Direct	In the product manufacturing processes, reduce power usage and paper waste by combining operation stations.	Combine the E-integration system with TEST operation station, to reduce production cost further.
	Opportunity 2 Design of green products	Indirect	in order to minimize paper wastes, design innovative products as environmental protection awareness is on the rise.	Papers printed by users are replaced by e-paper product development in order to reduce deforestation.

## Energy management

Through ISO 14001: 2015 Environmental Protection Management certification, Apacer has established pollution prevention and improvement mechanisms to achieve energy-saving usages in order to reduce environmental impacts on corporate operations. The power consumption in the Headquarters accounts for the predominant source of internal energy consumption within the company, while the externally-acquired electricity used in factory offices are procured from external suppliers (indirect energy,) accounting for over 99% of the overall energy usage. In 2022, water-cooled air-conditioning equipment were fully installed, leading to significant reduction in power usage as well as a slight decrease in energy intensity. The overall trend is declining, and the total electricity consumption has been saved by 9% compared with that of last year.

Historical power usage status									
Year		2019		2020		2021		2022	
Direct energy	Diesel stacker	20L	0.702GJ	0L	0GJ	20L	0.702GJ	0L	0GJ
Indirect energy	Power consumption in factories and offices	3,987,706 kW	14,355.742 GJ	4,112,765 kW	14,805.954 GJ	3,748,997 kW	13,496.389 GJ	3,673,094 kW	13,223.138 GJ
Total energy (GJ)		14,356.444		14,805.954		13,497.091		13,223.138	
Annual operating revenue (million)		7,485.821		7,152.222		8,682.393		8,797.035	
Energy intensity (GJ/million)		1.92		2.07		1.55		1.50	

Note 1: 1L diesel - 8400 kcal; 1 cal = 4.18 joules ([refer to the Calorific table of Energy Product by the Energy Bureau of the Ministry of Economic Affairs](#))

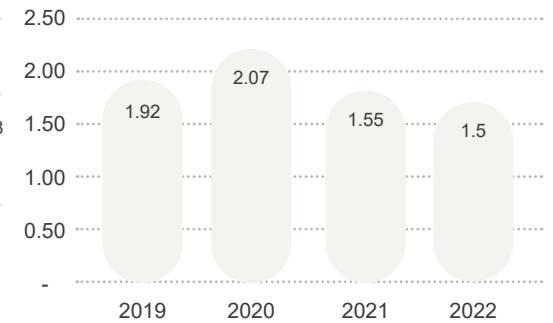
Note 2: 1 kW electricity = 3.6 million joules = 3.6x10<sup>-3</sup> gigajoules

Note 3: Energy intensity (GJ/million) = total energy usage (GJ)/annual revenue (million)

Note 4: The data of 2022 did not include the data from UDInfo.

### Energy intensity

#### Energy intensity in the last four years

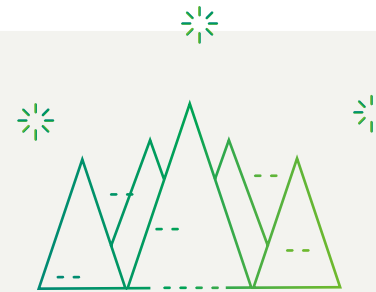


Note: Energy intensity (GJ/million) = total energy usage (GJ)/annual revenue (million)

## 2022 Energy Saving and Improvements

In order to protect the environment, we keep reducing GHG emissions and resource consumption. In 2019, Apacer invested NT\$ 2.5 million to replace the air-cooled air-conditioners with water-cooled air-conditioners on the 7th floor of the factory office. After one year of follow-up assessments, we concluded that the water-cooled air conditioners can save energy by more than 30% compared with that of air-cooled air conditioners. Due to the outstanding energy-saving performance, in 2022, Apacer invested another NT\$15 million to replace all the air-conditioners on the 1F~6F, and the new equipment has entered into service since 2021. In addition to saving power utility costs, it could also realize the concept of environmental protection, playing a role in slowing down climate change. Also, in 2022, the low power-consumption production equipment - the solder paste inspection machines - were replaced in order to save much more energy.

- ✓ Replacing low power consumption production equipment, such as "reflow oven" and "solder paste inspection machine", for saving +0.28% of power usage
- ✓ Complete replacement of water-cooled air-conditioners, for saving more than 60% of power usage
- ✓ Banning the use of disposable chopsticks



- ✓ Promotion of more walking than taking the elevators
- ✓ Removal of low power consumption LED light fixture
- ✓ Turning off air-conditioning systems one hour in advance
- ✓ Adjusting the number of lamps in public areas

Green factory and office  
Energy-saving improvement

Overall, 363,774 kWh of electricity and 1,309.6 GJ of energy was saved  
GHG emissions reduced by 185.2 tons of CO<sub>2</sub>e

### Historical energy-saving actions and benefits

2022	Optimization of test mode and reduction of manufacturing process and power consumption	Optimization of DRAM test mode, saving power consumption in the manufacturing process for about 7000 kWh/year (25.2 GJ/year).	Tracking the performance on the changes in air-conditioning system from air-cooled to water-cooled.  Assessment of LED lightning	According to the tracking in 2022, power consumption was reduced by 60% by using water-cooled air conditioners based, and the Company's total power consumption was reduced by 364K kWh compared with that of 2021, which was a decrease of 9%.  In 2023, light fixture on 1F~6F of the Company were completely replaced with LED light fixture, which may save the energy consumption of lamps by more than 35% in the future.
2021	Reducing the power consumption in the manufacturing process	Low-power consumption reflow furnances were purchased for production equipment, in order to reduce power consumption.	Activation of water-cooled air-conditioning, saving the power consumption of air-conditioning	In 2021, the water-cooled air-conditioning systems were fully activated, so the air-conditioning power consumption can be saved by more than 30%, while the power consumption of the whole company was saved by 364K kWh if being compared with that of 2020, which was a decrease of 9%.
2020	Refinement of the testing manufacturing process, to reduce power consumption in the manufacturing process	The number of DRAM test stations were reduced from 4 to 2 stations, to save power consumption in the manufacturing process.	Full replacement of air-conditioners to save air-conditioning power consumption	Thanks to the performance of 2019, water-cooled air conditioners were introduced to 1F~6F of the factory office in 2020 and have been entered into service since 2021, hoping to save by more than 30% of air-conditioning power consumption.
2019			Optimization of air conditioners, creating an energy-saving office environment	Apacer introduced water-cooled air-conditioners in the offices on 7F in 2019, which could save more than 30% energy compared with the original air-cooled air-conditioners.
2018	Optimization of testing manufacturing process to reduce power consumption in the manufacturing process	The number of stations was reduced from 52 to 39, saving energy by about 20-37%.	Optimization of SMT equipment, and the use of nitrogen machine to reduce power consumption in the manufacturing process	Refinement of the testing manufacturing mode to reduce power consumption in the manufacturing process
	Installation of leakage prevention tanks, to prevent chemical leakage	Leakage prevention tanks were installed in the shower and eyewash facilities as well as the explosion-proof room, to prevent chemical leakage from flowing into the drainage pipes.	Refinement of the testing manufacturing mode to reduce power consumption in the manufacturing process	1. Energy-saving improvement in the run-in equipment: energy saved by 19.64%, resulting in an annual saving of 6,920.64 million joules. 2. Energy-saving improvement in the compressors: energy saved by 19.35%, resulting in an annual saving of 466.560 million joules.

## Historical energy-saving actions and benefits

2017	Introduction of dust emission monitoring	Dust is generated during the PCB production process and then is recycled. After recycling, the natural gas is released into the air, so the data is monitored before and after the dust emissions, in order to ensure compliance with the air quality laws and regulations, for preventing air hazards.	Introduction of chillers and cloud monitoring of temperature	Data can be retrieved at any time, including power consumption, amount of inflow and back flow, temperature of inflow and back flow, cooling water quality, and others. We can prevent energy waste and set energy-saving goals., by long-term monitoring of power consumption data.
2016	Apacer Energy-Saving Patrol	In 2016, employees voluntarily became the members of Apacer Energy-Saving Patrol who made assessment and carried out the Company's energy-saving action plans, in order to prevent energy wastes.	Room temperature control measures	Air-curtains were installed at the entry and exit doors of the production lines in order to reduce indoor and outdoor temperature changes and to improve the accomplishment rate to meet customers' requirements in terms of temperature and humidity; air-conditioning power consumption was also reduced.
2015	Introduction of water-saving facilities	In 2016, service water water-saving facilities were installed, and the water-saving rate was reduced by 24.8% compared with that of 2015.	Air-conditioning energy-saving measures	Curtains, thermal insulation papers and air-circulation fans were installed inside, to enhance energy usage rate. The indoor AC temperature was set at 26 °C , reducing unnecessary power consumption.

## ● GHG management

To understand the impacts and influences generated by our business operations on the environment, Apacer has voluntarily started conducting GHG inventory since 2013. We set up that the year of 2012 is the inventory base year, in order to have a realistic insight into the Company's GHG emissions. Apacer has been committed to the reduction of GHG emissions and to be in line with the government's carbon reduction policies as well as the international environmental protection trends.

In February 2023, Apacer completed the GHG inventory of Scope 1 and Scope 2. Based on the headquarter in Tucheng District in New Taipei City as the boundary, the sources of emission include equipment within the factories and outsourced power, and we completed the inventory of Scope 3. .

The GHG emission (Scope 1 and Scope 2) in 2022 was reduced by 670.34 metric tons of CO<sub>2</sub>e/year, compared with 2021.

Note 1: Since 2019, Apacer has started replacing the air-conditioners on 7F with more energy-saving water-cooled air-conditioners. We also have personnel keep monitoring and recording energy-saving efficiency, for ensuring to effectively reduce air-conditioning power consumption. Since 2021, the water-cooled air-conditioners have entered into service completely, so the year of 2020 has been set up as the base year for GHG reduction.

Note 2: Apacer has changed the GHG inventory inspection and accreditation standard as ISO 14064-1: 2018 and completed the inventory of Scope 3.

Note 3: Two "water-cooled, machines" and 3 "dehumidifiers" have entered into service since 2021. This led to a significant increase in the refrigerant filling which also resulted in the increase of Scope 1 emission. (Greenhouse Gas Emission Coefficient Management Table v. 6.0.4 - Amount of Procurement or Outsourced Supplementation)

## GHG emission

Scope	2019	2020	2021	2022
Scope 1(CO <sub>2</sub> e)	9.11	9.05	681.39	10.47
Scope 2(CO <sub>2</sub> e)	2,125.45	2,092.49	1,887.39	1,867.97
Subtotal emission (CO <sub>2</sub> e)	2,134.55	2,101.54	2,568.78	1,878.44
Scope 3 (CO <sub>2</sub> e)	-	-	-	429.294
Total emission (CO <sub>2</sub> e)	2,134.55	2,101.54	2,568.78	2,307.734
Annual revenue (million)	7,485.821	7,152.222	8,682.393	8,797.035
Intensity of GHG emission (CO <sub>2</sub> e/million)	0.28	0.29	0.29	0.21

Note 1: Year of GWP reference data: IPCC 2007.

Note 2: Source of carbon emission coefficient: inventory calculated based on the latest Electricity Carbon Emission Factor announced by the Energy Bureau (Carbon emission equivalent coefficient 0.509 kg/kWh)

Note 3: Setting of inventory boundary: Operation Control Method: the headquarter in Tucheng District in New Taipei City is set up as the boundary. The relevant sources of emission include equipment in the factories and outsourced power, which were used to complete Scope 1 to Scope 3 Inventory. The above data does not include the data from UDIInfo.

Note 4: GHG intensity (metric tons CO<sub>2</sub> e/million) = subtotal of emissions (metric tons CO<sub>2</sub> e)/annual revenue (millions)

Note 5: Due to the update of the "Electricity Carbon Emission Coefficient" in 2021, the surveyed data is shown as in the above table.

Note 6: As the "Electricity Carbon Emission Coefficient" has not yet been announced since 2022, so the "Electricity Carbon Emission Coefficient" of 2021 was used for calculating the emission.

※The company's manufacturing process does not contain any substances or equipment that may damage the ODS, nor does it emit NO<sub>x</sub> or SO<sub>x</sub> related gases.

# Waste and water resource management

## ● Waste management

To effectively clean up wastes and prevent environmental pollution caused by wastes, Apacer pays special attention on the reduction of wastes in production. At the same time, we also have proper waste classification, recycling and outsourced treatment. Both general business wastes and hazardous business wastes are outsourced to a third-party qualified supplier for further processing. Apacer has formulated relevant management procedures, ensuring the adequacy and legality of waste processing. Depending on the needs, on-site audits are conducted by the responsible unit at least once a year. If the audit result does not conform to the standard, the operations will be suspended while improvements should be done within a time limit. If the results of the improvement still fail to comply with the requirements, the contract will be terminated, and Apacer will look for other qualified suppliers in order to fulfill its corporate responsibility in waste management. Regarding the waste liquid produced in the production processes, we added the leakage prevention tanks in the shower and eyewash facilities as well as the explosion-proof room, to prevent chemical leakage from flowing into the drainage pipes.

Apacer's total waste in 2022 was 33.4 tons, representing a decrease of 21% compared with that of last year. This also shows an overall downward trend. Waste amount was reduced due to the pandemic.

Waste processing and management in 2022

Item	Hazardous business wastes					General business wastes			
Treatment	Landfill	Incineration	Reutilization	Recycling		Landfill	Incineration	Reutilization	Recycling
Processed amount (ton)	0	0	0	6.2		0	10.3	16.9	0
Subtotal (ton)	6.2						27.2		
Total (ton)	33.4								

Note 1: The wastes generated by Apacer are completely entrusted to qualified suppliers. Based on the legal disposal methods of different business wastes, they are all processed off-site, nothing on-site.

Note 2: Qualified suppliers: Public and private waste clearance and processing institutions that have the permission of the competent authority to clean and process such wastes.

Note 3: Resource Circulation Administration, Ministry of Environment.

Note 4: The above data does not include the data from UDInfo.

Item	Hazardous business wastes		General business wastes	
Treatment	On-site treatment	Off-site treatment	On-site treatment	Off-site treatment
Processed amount (ton)	0	6.2	0	27.2
Subtotal (ton)	6.2		27.2	
Total (ton)	33.4			

Note 1: Qualified suppliers: Public and private waste clearance and processing institutions that have the permission of the competent authority to clean and process such wastes.

Note 2: Data source: Industrial Waste Report and Management System of the Environmental Protection Administration, Executive Yuan

Note 3: The above data does not include the data from UDInfo.

## ● Water resources management

Through the ISO 14001:2015 - Environmental Management Systems certificate, Apacer has set up a pollution prevention and enhancement mechanism and has adopted energy-saving measures to reduce the environmental impacts of business operations. The Company's internal resource usage consists mainly of the service water in the headquarter. The manufacturing process of the production does not require water usage, so there is no business waste water. The Company's water source is Taiwan Water Corporation, and its water source is from Shimen Reservoir. The service wastewater is collected through the sewage pipelines to the sewage treatment plant. Water acquisition and waste water discharge do not cause significant environmental impacts. In 2021, as the water-cooled air-conditioners from 1F~7F had successively entered into service, the total amount of water acquisition had a slight increase.

Note 1: Apacer's source of water is acquired from Shimen Reservoir, which has surface water. Based on the assessments, none are from water-stressed regions.

Note 2: As the manufacturing process of the production does not require water usage, the waste water is all from daily life usage.

Note 3: The water nature discharged in Apacer is service water. After discharged into the sewage pipelines, the water is treated in a sewage treatment plant and then discharged.

Note 4: In 2021, as the water-cooled air-conditioners from 1F~7F had successively entered into service, the total amount of water acquisition had a slight increase.

Note 5: The flow meter was installed in mid-2021, so there is no water discharge and water consumption data dated before 2022.

Note 6: The 2022 data does not include the data from UDInfo.

### Historical water resource management

Year		2019	2020	2021	2022
Water acquisition	Water source	Surface water	Surface water	Surface water	Surface water
	Total water withdrawn(million liter)	5.36	5.8	9.18	9.88
Water discharge	Endpoint of water discharge	Sewage treatment plant	Sewage treatment plant	Sewage treatment plant	Sewage treatment plant
	Total discharge (million liter)	-	-	-	4.19
Water consumption	Type of consumption	Service water	Service water	Service water	Service water
	Total water consumption (million liter)	-	-	-	5.69

## ● Environmental protection actions in office

Apacer emphasizes that energy-saving and eco-friendliness can be integrated into the daily operations of the Company. As we try to reduce environmental impacts, we also encourage employees to show eco-friendly behavior.



### Apacer's environmental protection achievements in offices in 2022

#### Replacement of LED light fixture

- Factory office gradually replaced the T5 light fixture with the energy-saving LED light fixture. In 2022, **140** fixtures were replaced, reducing 10% of power consumption in lighting.

- Each LED light fixture can reduce 35W, which means approximately **14,308**kWh can be saved in one year<sup>note</sup>.

#### Propaganda of energy-saving actions

- Energy-saving marketing materials are posted, to encourage employees to save energy resources.

- We hold **"Workout Day"**, an activity that allows the calculation of accumulated walking steps, encouraging our employees to walk more, rather than taking the elevators.

#### Energy-saving activities in offices

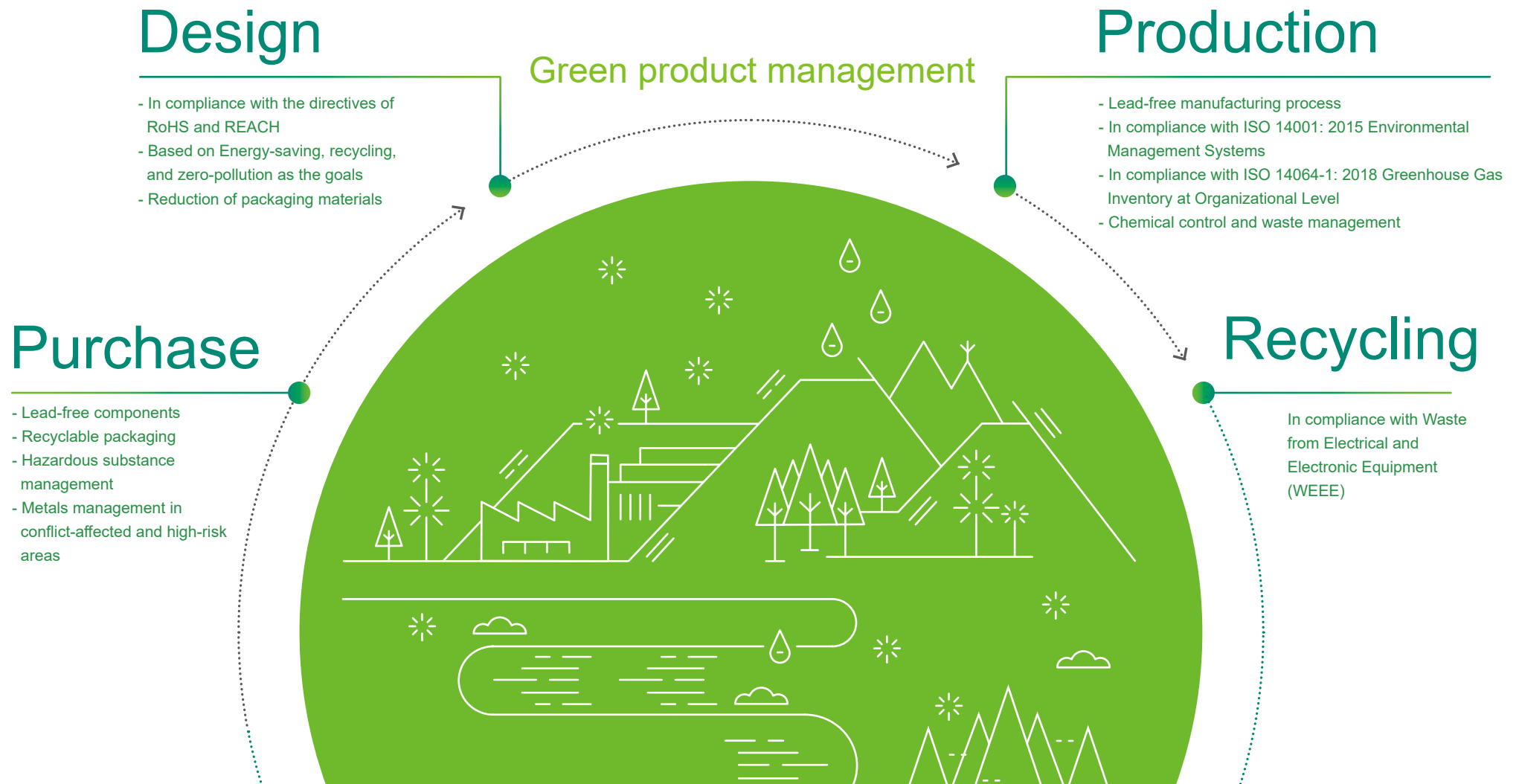
- In 2022, the usage of A4 paper was reduced by 226 packs, which was a reduction of approximately 23 packs compared to 2021.

- In May 2021, disposal tableware have been banned from the meal-boxes in the company. By the end of 2022, a total of 47175 pairs of disposal chopsticks were saved.

Note: Calculation method: T5 light fixture (14W\*4=56W), LED light fixture (7W\*3=21W); each fixture can save 35W and 0.28 kWh/day. 140 fixture\*0.25 kWh/day = 19.88 kWh/day; 19.88 kWh/day\*365 days = 14308 kWh/year.

# Green products

In response to the trends of global environmental protection, and with our commitment to accomplishing the brand core value "Becoming Better Partners", Apacer keeps thinking about how to extend positive influences based on the business operation cores. We have extended the environmental protection and sustainability concepts into the company's overall value chain, from the introduction of environmental management systems to supply chain management, green product design, and environmental protection education, accomplishing green products and production. We comply with the latest international environmental protection regulations, ensuring all Apacer products are equipped with green international competitiveness.



## ● [Purchase] Responses to hazardous substance control in advance (Major Topic)

Apacer has introduced in the RoHS Directive to the whole manufacturing process and material management to comply with REACH and relevant clients' requirements, and implemented supplier management, such as audit visits to component suppliers and the requests for environmental protection commitment statements, in order to ensure all the sources of materials comply with environmental protection regulations. Suppliers' meetings were also hosted to communicate management policies and purchase standards to effectively administer the sources of the raw materials.

2007

- Introduction of lead-free manufacturing process
- Passing QC 080000 Management System certification
- Full control and prohibition of the use of hazardous substances in the manufacturing process

2011

- Gradual introduction of halogen-free manufacturing process
- Supplier audits and request of the environmental protection commitment statement and RoHS testing reports

2017

Early prohibition of the four kinds plasticizer (BBP/DBP/DEHP/DIBP)

2019

Four kinds plasticizer (BBP/DBP/DEHP/DIBP) are newly included in the RoHS Directive as hazardous substances to be banned

2021

- Chemicals under the Toxic Substances Control Act (TSCA)
- (DecaBDE/PIP/PCTP/HCBD/2,4,6-TTBP) banned
- China's GB VOC Standard
- 5 new prohibited substances and VOCs control and management

2022

France's Mineral oil control

## ● AGP system management optimization

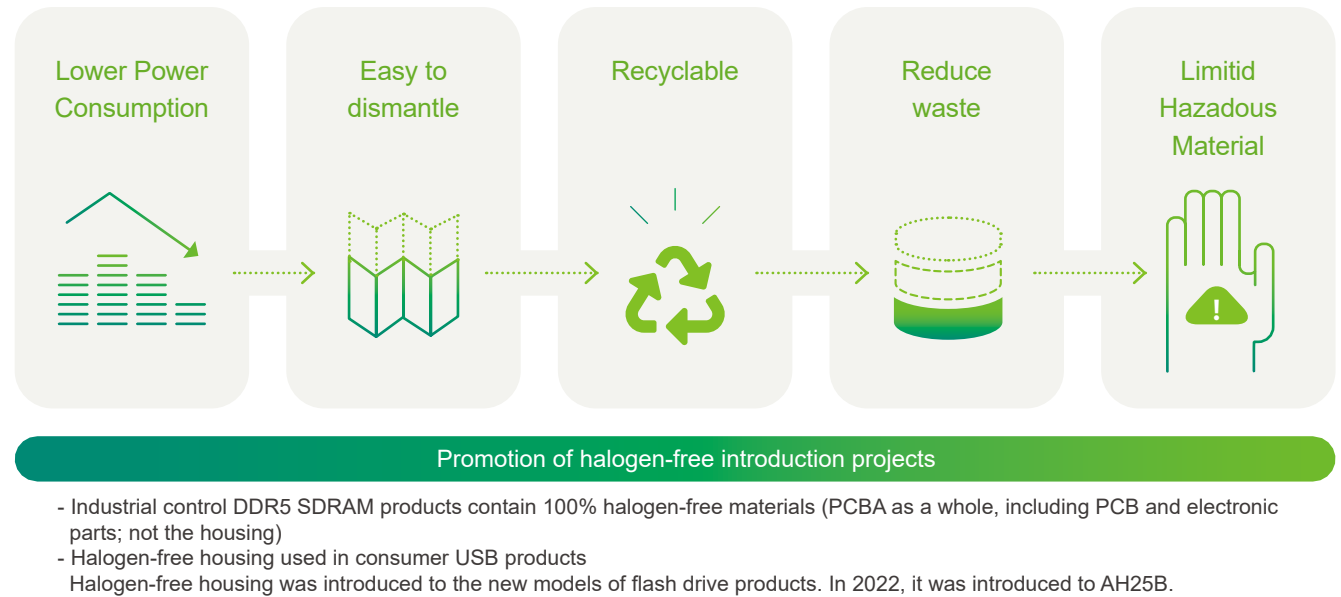
Through the AGP system (Apacer Green Product Web System), the raw material data and information are controlled and managed. Relevant latest regulations and system operation descriptions are announced in the Suppliers' Meetings in order to effectively manage the use of raw materials.

Because of the growing quantity of rules and regulations related to environmental protection, we conduct system revisions and optimizations a, in order to safeguard Apacer's products to meet the clients' requirements and needs. Regarding the modification of the system process, the system is now used for notifying the newly included prompts and announcement, FMD composition list, and others, instead of manually sending via emails. Before the raw materials arrive at Apacer, the suppliers must provide sufficient information and upload the "FMD composition list" in order to ensure the materials comply with Apacer's and the customer's regulations regarding hazardous substances.



## ● [Design] Eco-products of high efficiency and low energy consumption

Apacer continually directs its development and design efforts towards high efficiency and reduced energy consumption, aligning with market demands and future trends. When it comes to material utilization, we make precise calculations to optimize resource utilization and minimize wastage. Additionally, we recycle and reuse the remaining materials from our production processes, for promoting resource circularity and recycling. Regarding packaging design, our primary focuses are the ease of disassembly and recyclability. We want to minimize both size and waste production, to mitigate environmental impacts. All Apacer products are limited from the use of hazardous substances in order to protect the natural environments and ecosystems.



## ● [Manufacturing process] Smart green production

### Smart factory - more upgrading in the manufacturing process management

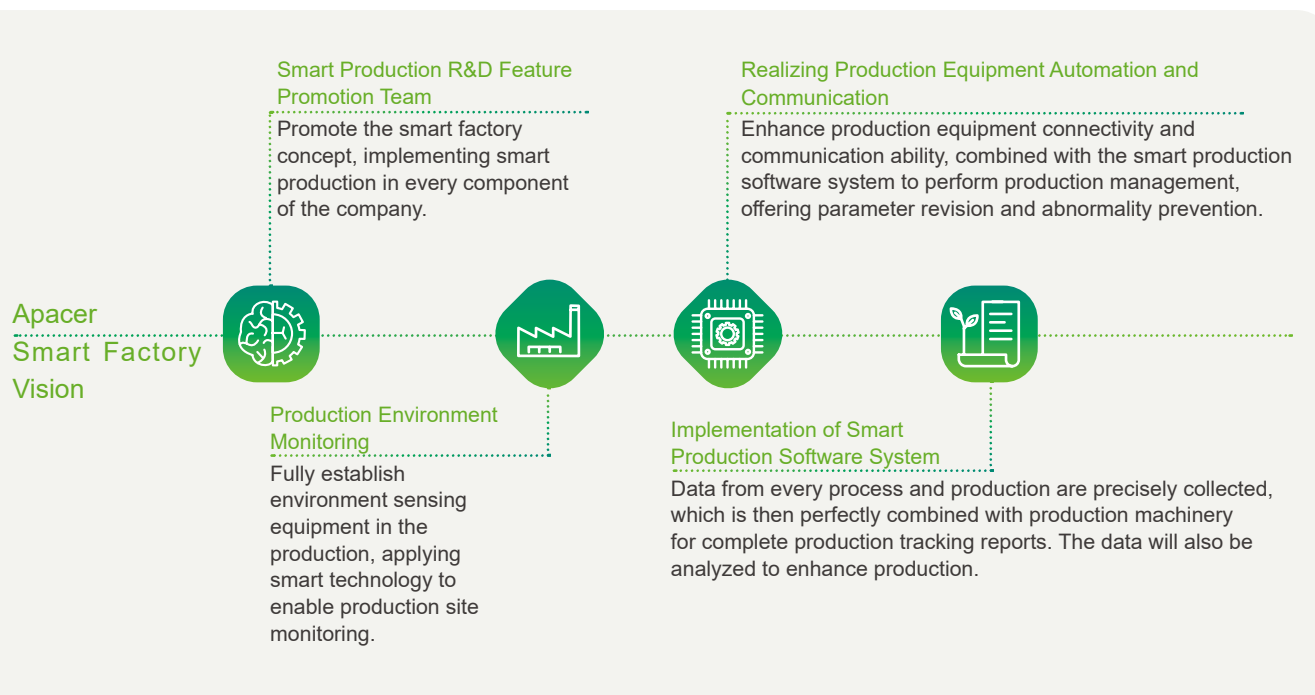
Based on automated equipment, network communication technology, and manufacturing and product systems, Apacer intends to build a "smart factory production system", hoping to enhance overall production efficiency and cost competitiveness.

Production and warehouse environments are monitored with IoT smart sensing devices in order to reduce quality risks and increase customers' satisfaction.

With excellent production equipment, autonomous R&D abilities, and comprehensive factory management, we create a green production environment that complies with international standards. It offers the best manufacturing process based on customization. Through the APS system, the production schedule and status can be controlled with preciseness, maximizing production efficiency and optimizing production capacity.

### Reduction of product packaging

To accomplish energy-saving and carbon reduction principles in routine works and avoid waste of resources, Apacer has re-examined several production task procedures in order to find idled or wasted resources at work. Relevant actions have been in the planning process since 2019, including the reduction of packaging cartons and the recycling and reuse of trays/cartons. By 2022, a total of 10800 pieces of packaging materials were reduced while a total of 293991 pieces of trays and cartons were recycled and reused. By changing the SOP, we can achieve the efficiency of resource waste reduction. In the future, Apacer will keep the active attitude, seek ways to reduce carbon emissions and protect the planet, and fulfill its responsibilities for protecting the environment.



2019		2020	
<b>Goals</b>	Reduction of packaging cartons	<b>Goals</b>	Planning the recycling and reuse of trays Reduction of packaging cartons
<b>Action</b>	Optimization of product warehousing operation: less than 1 box, without being packed into warehouse	<b>Action</b>	Optimization of product warehousing operation: less than 1 box, without being packed into warehouse, which saved 3600 packaging materials
2021		2022	
<b>Goals</b>	Recovery of trays/cartons Reduction of packaging cartons	<b>Goals</b>	Recovery of trays/cartons Reduction of packaging cartons
<b>Action</b>	- Simplification of product SOP: reduction of 13816 stickers/month - Recycling and reuse of trays/cartons: a total of 291647 pcs	<b>Action</b>	Recovery of trays/ cartons: 293991 pcs

## ● [Recycling] In compliance with EU rules on WEEE

If waste electronic products are not properly disposed, hazardous substances may be released, leading to serious contamination hazards. Apacer embraces the spirit of "producer's responsibility" and follows the EU rule on WEEE by adding it to the waste electronic recycling system with the product label of WEEE. We target a recovery rate of 80%, and a re-use and recycled rate of 70%, advancing on the goal of sustainability together with our consumers. All Apacer products in the European region can be disposed properly through the local qualified recycling suppliers, in order to protect the environment of Earth and allow the resources to be recycled.

WEEE compliant



2022 products and packaging percentage		
Total amount of main products	Total amount of recycled materials	Percentage of renewable material recycling
357.38 metric tons	8.7 metric tons	2.4%

Note 1: Apacer's main products have not been in the recycling process yet.  
 Note 2: The recycled materials mentioned here are mainly packaging materials.  
 Note 3: Percentage of recycled materials (%) = Total amount of recycled materials during the report period (metric tons) / Products sold during the report period (metric tons) \* 100  
 Note 4: The above data does not include the data from UDInfo.

## Chapter III

# A Better Partner for Making Progress

**Vision**

Apacer insists on providing products and services of outstanding quality, implementing international environmental-related laws and regulations, and creating a reliable international green brand, hoping to play the role of growth and progress within the entire industrial chain. Thus, Apacer has enacted several management policies with the suppliers and customers, hoping to achieve growth in collaborations and joint progress, which is in line with the brand's core value "Delivering on Our Promise, Constant Improvement, Mutually Beneficial".

**Policies and  
promises**

Apacer upholds the quality policy of "delivering competitive, defect-free and HSF products and services on time to satisfy customers", promises its commitment to social responsibilities, and offers consumers with safe and reliable green products.

## Major Topics of this chapter

Major Topics				
Sustainability management of supply chain				
Impact description	Apart from keeping a stable supply chain, the delivery quality and schedule should also be ensured, for providing on-time delivery services and thus achieving the goal of operational profitability. Potential negative aspects: ·Supply chain disruption may affect the company's operations. ·Suppliers' breach of laws may affect the corporate image ·If a supplier's products has any problems in quality and delivery time, our company's operating cost may increase accordingly.			
Policy promises	Quality and hazardous substance management based on the policy core "delivering competitive, defect-free and HSF products and services on time" as per ISO 9001: 2015 and IECQ QC 080000: 2017.			
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	Supplier GHG inventory coaching and guidance	Completed on two suppliers	Completed on two suppliers	Things Accomplished
	Regular audits of supplier Note: The regular evaluation frequency is enacted, based on the Supplier Management Measures.	Approval rate of 100%	Approval rate of 100%	Things Accomplished
Stakeholder Engagement		Communication method	Frequency	Complaint mechanism
	Suppliers	Supplier evaluation	Periodic	Survey-questionnaire on suppliers' satisfaction
		Supplier conference	Once per year	
		Quality improvement meeting	Possibility of major quality matters	
	Customers	Satisfaction questionnaire survey	Once a year	Customer satisfaction questionnaire survey
		Customer visit	Non-periodic	Service e-mail for customers
		Audits on Apacer	Periodic	
Sustainability goals		Assessment methods		
Short-term goals (2023)	· Supply chain collaboration for carbon emission management · Annual Supplier Conference; suppliers' satisfaction level reached more than 85 scores, according to the		· Supplier satisfaction questionnaire survey · Performance results from Supplier Conference · Results of annual supplier assessment	
Mid-term goals (2023-2025)	· Based on RBA VAP (Validated Assessment Program ) protocol, the supplier evaluation/audit/management should reach more than 75 scores. · Supplier Conference hosted every year to promote the key issues of the year. · Include ESG considerations into the supplier policies in order to construct a sustainable supply chain management.			
Long-term goals (2026)	· To develop green smart management · Internal: To develop green product design and manufacturing process in Apacer · External: Through AGP system (Apacer Green Product Web System), to continue updating and promoting green product and environmental protection regulations and to request relevant partners to abide by the practices			
Sustainable Development Goals of the United Nations				
12.2By 2030, achieve the sustainable management and efficient use of natural resources. 17.16 Enhance the global partnership for sustainable development complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technologies and financial resources to support the achievement of sustainable development goals in all countries, particularly developing countries.				

Major Topic				
Hazardous substance management				
Impact description	The hazardous substance management is a careful management operation from supplier management, warehouse, and production line operation to waste processing, ensuring harmlessness towards the personnel and local environment. Potential negative aspects: Product quality, delivery and corporate image are affected due to the breach of regulation resulted from the use of excessive hazardous substances.			
Policy promises	Provision of products and services free of hazardous substances; pollution prevention. All raw materials and products are 100% in compliance with EU RoHS and REACH regulations, and Hazardous Substance Free (HSF) management is in compliance with international regulations and customer needs.			
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	New suppliers in compliance with RoHS.	100%	100%	Things Accomplished
	Approval rate of HSF new materials.	100%	100%	Things Accomplished
	Use of recovery rate in the list of new material composition	60%	60%	Things Accomplished
Stakeholder Engagement		Communication method	Frequency	Complaint mechanism
	Customers	Communication with exclusive personnel	Non-periodic	Customer satisfaction questionnaire survey
		Customer satisfaction questionnaire survey	Once a year	Service e-mail for customers
		Audits on Apacer	Periodic	
	Suppliers	Quality/hazardous substance communication meetings Supplier conference 供應商大會	Periodic 每年一次	Supplier satisfaction questionnaire survey
Sustainability goals		Assessment methods		
Short-term goals (2023)	·AGP version revision and optimization ·70% of recovery rate in the new material composition	· AGP system revised and launched · List with the recovery rate of the complete new material and compositions.		
Mid-term goals (2023-2025)	·80% of recovery rate in the new material composition			
Long-term goals (2026)	·100% of recovery rate in the new material composition			
Sustainable Development Goals of the United Nations				
12.2By 2030, achieve the sustainable management and efficient use of natural resources.				

## Major Topics of this chapter

Major Topic				
Customer relationship management				
Impact description	“Delivering on Our Promise, Constant Improvement, Mutually Beneficial” is Apacer’s brand core value, which is extended to “Becoming Better Partners” in order to satisfy customers’ needs in terms of products and services. ·Actual positive aspects: to establish good and trustworthy relationship with the customers, provide products and services of high quality, and create win-win outcomes.			
Policy promises	“Delivering competitive, defect-free and HSF products and services” for our customers.			
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance 2022	Effectiveness tracking
	Survey-questionnaire on the customers’ level of satisfaction	Above 85	Score: 88.89	Things Accomplished
Stakeholder Engagement		Communication method	Frequency	Complaint mechanism
	Customers	Customer satisfaction questionnaire survey	Once a year	Survey-questionnaire on the customers' level of satisfaction
		Customer visit	Non-periodic	Service e-mail for customers
		Audits on Apacer	Periodic	
		Service e-mail for customers	Permanent	
		Post-sales service website	Permanent	
	Shareholders	Shareholders' meetings	Once a year	Customer service e-mail on the official website
		Sustainability report	Once a year	
		Company’s annual report	Once a year	
Sustainability goals		Assessment methods		
Short-term goals (2023)	· Customers’ level of satisfaction reaching 85 in the survey-questionnaire. · Based on the results of the Customer satisfaction questionnaire survey, to provide a proposal of the items to be improved and improvement plans.	· Every year, to use CRM system to conduct the Customer satisfaction questionnaire survey.		
Mid-term goals (2023-2025)	· Customers’ level of satisfaction reaching 85 scores in the questionnaire. · The width/depth of customer scope was increased.			
Long-term goals (2026)	· Customers’ satisfaction reaching 85 scores in the questionnaire. · High-value customers account for more than 80%.			
Sustainable Development Goals of the United Nations				
12.2By 2030, achieve the sustainable management and efficient use of natural resources.				
17.16 Enhance the global partnership for sustainable development complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technologies and financial resources to support the achievement of sustainable development goals in all countries, particularly developing countries				

Major Topic  
3.1

# Sustainability management of supply chain

## Supplier management strategies

In addition to the commitment to corporate social responsibilities and the duty to address stakeholders' needs, Apacer also hopes to work with the suppliers and partners for mutual growth, aiming to improve and progress in the aspects of laws and regulations, human rights, environmental safety and health, and others. The goal is to reduce risks, build a robust constitution, and jointly achieve sustainable management and development, setting up a "sustainable supply chain".

Apacer has set up "the promotion of sustainable supply chain management" as its mid-term and long-term goal. Apart from the QDCS (Quality, Delivery, Cost, and Service) management, ESG (Environmental, Social, and Corporate governance) concerns are also included now. Since 2020, we have started planning the inclusion of ESG considerations in supplier selection, evaluation, classification, audit, coaching, commendation, and other systems in order to implement the spirit of sustainability. In 2022, we continued evaluating the ESG aspects of our suppliers and all audited suppliers met the requirements. Currently, we have only conducted ESG evaluation on key suppliers. In the future, the scope of ESG evaluation will be extended.

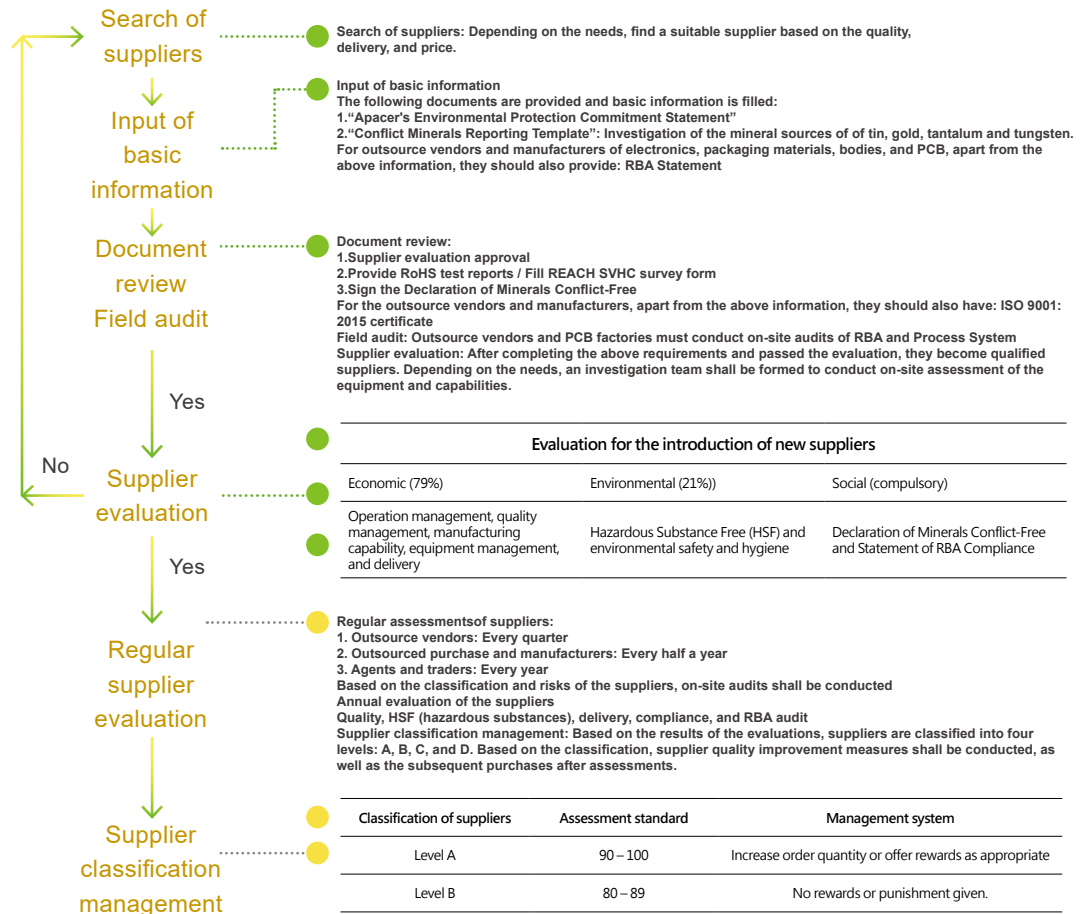


## Supplier management process

### Stage: Introduction of new supplier

All new suppliers must undergo the evaluations, mainly being assessed in terms of economic and environmental aspects.

Depending on the type and risk of the supplier, an on-site audit is conducted to assess the equipment and capabilities in the site. Through the evaluation system for the introduction of suppliers, the partners in the supply chain will give more attention and implement sustainable operations in their companies.



All raw material suppliers must undergo regular assessments, and on-site audits shall be conducted based on the needs.

The RBA specification has been included in the annual assessment. In the future, the scope of assessment will be extended in order to gradually improve the suppliers' capabilities in sustainability management.

### Stage: Regular assessment of suppliers

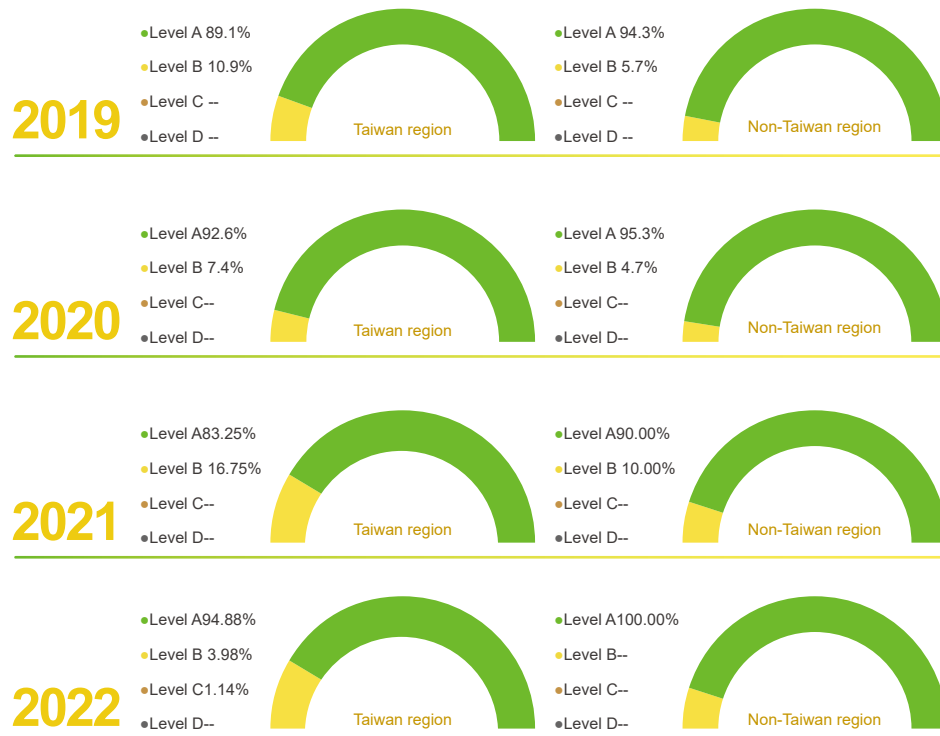
Note: General service suppliers are not included in this management procedure.

## Supplier evaluation and classification in 2022

Since the implementation of the evaluation system, Apacer has not only conducted audits but also provided coaching and guidance activities, hoping to advance and progress together with our partners.

In 2021, Apacer implemented the online real-time assessment system, changing the manual audit conducted once every three months to one year into real-time automatic assessment on a monthly basis. In 2022, the percentage of level A suppliers had a significant increase, showing the good adaptation of the suppliers to the "real-time automatic assessment". This function also fosters the autonomous improvements of the suppliers themselves. It is also worth mentioning that two suppliers fell into class C in 2022. After mutual communication, they improved their manufacturing process and adjusted the procurement strategies to prevent the same quality problem in the future.

We have also included the five RBA scopes - labor, health and safety, environmental protection, ethics, and management system - in the annual assessment. In the first stage, its introduction is prioritized to factories of a considerable scale as well as suppliers who can cope with the RBA requirements. In the future, the scope will be extended to further institutions and factories so that our suppliers can be in line with international standards and gradually upgrade their capabilities in sustainable management. In the 2023 assessment, all audited suppliers reached level A standards and were 100% in compliance with RBA regulations.



Note: The 2022 data does not include data from UDInfo.

## Suppliers' purchase policy

Apacer's risk assessment is based on the overall state of the supplier, including the delivery quality (ISO 9001: 2015), price, green products (IECQ QC 080000: 2017), and the implementation status of RBA policy; supplier audits and evaluations are conducted on a regular basis. These policies ensure Apacer's product delivery and quality stability, satisfying all customers' needs and HSF regulations.

Based on the principle of local purchase, Apacer hopes to keep the economic benefits of business operations in Taiwan and reduce carbon emissions generated from raw material transportation. Currently, local Taiwanese suppliers account for 90.7%, whereas on the purchase budget, local Taiwanese suppliers account for 54%.

### Suppliers' purchase status in 2022

Region	Supplier type	Number	Percentage	Budget ratio
Taiwan	Agent	49	90.7%	54%
	Outsource vendor	9		
	Outsourced purchase	9		
	Trader	20		
	Manufacturer	85		
	Outsource vendor and supplier	4		
Non-Taiwan region	Agent	4	9.3%	46%
	Outsource vendor	0		
	Outsourced purchase	1		
	Trader	9		
	Manufacturer	4		
	Outsource vendor and supplier	0		
Total		194	100%	100%

Note 1: The supplier policy focuses on the disclosure of raw material suppliers rather than general service suppliers.

Note 2: The above data does not include the data from UDInfo.



## ● Responsibility supply chain

### Suppliers' historical sustainable management actions

2011	2013	2016	2017	2020	2021	2022
<b>Fill environmental commitment statement</b>  Part and component suppliers underwent audits and were requested to provide environmental protection statements and RoHS test reports.	<b>Conflict Minerals Reporting Template</b>  Suppliers were requested to fill the Conflict Minerals Reporting Template.	<b>Launch green classification system</b>  Suppliers were classified based on the "approval rate" and "completion efficiency of expired updates" of the uploaded RoHS test reports.	<b>Introduce RBA statement</b>  RBA statement implemented to first-tier suppliers, who were requested to reply to RBA Statement and undergo RBA audits.	<b>Commitment on conflicted minerals</b>  Suppliers were requested to sign Declaration of Minerals Conflict-Free. 100% commitment of the suppliers.	<b>Coaching for the sustainable management of suppliers</b>  Questionnaire surveys on suppliers' ESG policies and execution status, to provide guidance to selected suppliers.  <b>Coaching and guidance on GHG inventory</b>  GHG courses are organized and promoted to suppliers.	<b>Suppliers' survey on Becoming Better Partners</b>  Suppliers' satisfaction in terms of working with Apacer was investigated and improvements were made based on suppliers' opinions.  <b>Coaching and guidance on GHG inventory</b>  Suppliers were requested to conduct GHG inventory.

### Suppliers' green grading system

In addition to the supplier classification based on the five major assessment items, suppliers are also evaluated based on their HSF management. Based on the existing supplier management procedure, Apacer launched the "suppliers' green grading system" in 2016. Based on the "approval rate" and "completion efficiency of expired updates" in the RoHS test reports uploaded by the suppliers, a score is given to each of the suppliers. The purchase personnel can adjust the supplier's assessment and grading based on the score of the green grading and then request suppliers to make improvement in their HSF management in order to comply with the latest international standards and customers' requirements.

In 2022, through the APG Green Level Automatic Computing and Supplier Conference, Apacer has been encouraging suppliers to level up their green grading. The sum of level C and level D suppliers decreased by 1.5% compared to those of last year, while the rest continued to upgrade to level A and level B. As the "substance component table" was newly launched in the APG system in the third quarter, the suppliers were still in the familiarization process, so this affected the approval rate. In terms of the newly launched requirement in the system, the announcement was made at the Supplier Conference and a relevant SOP explanation was provided. We tried to maintain good communication and foster continuous improvement in the suppliers through active guidance and teaching.



### Historical suppliers' green grading

Level	Score	2019 Supplier ratio	2020 Supplier ratio	2021 Supplier ratio	2022 Supplier ratio
Level A	Above 90	87.2%	87.3%	88.4%	85.4%
Level B	75~89	2.4%	3.9%	5.9%	10.4%
Level C	60~74	1.4%	0.5%	3.2%	1.4%
Level D	Below 59	9.0%	2.9%	2.5%	2.8%
Unclassified	Ungraded	-	5.4%	-	-
Total		100%	100%	100%	100%

Note 1: The unclassified suppliers were the suppliers who offer outsourced services or new suppliers.

Note 2: The 2022 data does not include data from UDInfo.

### Suppliers and hazardous substance management (Major Topic)



Apacer has introduced the IECQ QC 080000: 2017 Hazardous Substance Process Management. Through the supplier management procedure, we ensure product quality and stability as well as HSF management to be in line with international standards and customers' needs.

While complying with the international standards, suppliers must also sign the environmental protection commitment letter, provide raw material test reports, and fill out the substance survey.

All raw materials provided by the suppliers are in compliance with EU RoHS and REACH regulations.

### No use of conflict minerals

**100% of the suppliers signed the Declaration of Minerals Conflict-Free.**

**85 of the suppliers signed the Conflict Minerals Reporting Template.**

#### CONFLICT



#### MINERALS

Regarding the mineral surveys of qualified suppliers, they are required to fill out conflict minerals surveys based on the Conflict Minerals Reporting Template (CMRT) and Extended Minerals Reporting Template (EMRT) of the Responsible Minerals Initiative (RMI), to ensure that all Apacer-related products use minerals from Europe, Asia, and Americas instead of the high-risk mines listed by OECD; all tradings must also be in compliance with RBA Statement.

We make sure that our suppliers understand and are willing to comply with the regulations of no use of conflict minerals. All qualified suppliers must sign the Declaration of Minerals Conflict-Free and conflict metals survey.

### Suppliers' promises

#### Suppliers signing the RBA statement



100% response of suppliers to the RBA Statement

Since 2017, the RBA statement has been implemented on the first-tier suppliers, regulating the representative raw material suppliers, outsourced suppliers, intermediary suppliers, waste disposal suppliers, and other labor-intensive suppliers who must reply to the RBA Statement. Together with our supplier-partners, we attach importance to labors' human rights, environmental protection, and integrity and transparent management.

Note 1: OECD's definition of conflict-affected and high-risk areas: Areas where risks of armed conflicts, widespread violence and harms against people's survival. Armed conflicts may be in different forms, such as international or non-international conflicts that may involve two or more countries, as well as liberation wars, rebellions, civil wars, etc. High risk areas may also refer to areas with political instability, repression, vulnerable systems, insecurity, collapsing civil infrastructure, and widespread violence. These areas are featured with common actions and behavior that violate human rights as well as domestic and international laws and regulations. Conflict Minerals refer to the minerals mined in conflict-affected and high-risk areas.

Note 2: Agents with qualified supply do not need to sign back the statements.

## ● Suppliers' sustainable interactions and recognition

### Annual Supplier Conference: communication and coaching

Together with our supplier-partners, we learn and grow in terms of environmental sustainability issues and drive the industrial chain to sharpen the management of green environmental issues, accomplishing global environmental sustainability trends with our own actions. In 2022, due to anti-pandemic concerns, Apacer hosted a virtual Supplier Conference instead of a physical one. Our supplier-partners responded well with active participation.

#### Key achievements in 2022 Supplier Conference

Attendance rate

**80 %**

Respond to eco-friendly e-survey

Survey-questionnaire recovery rate

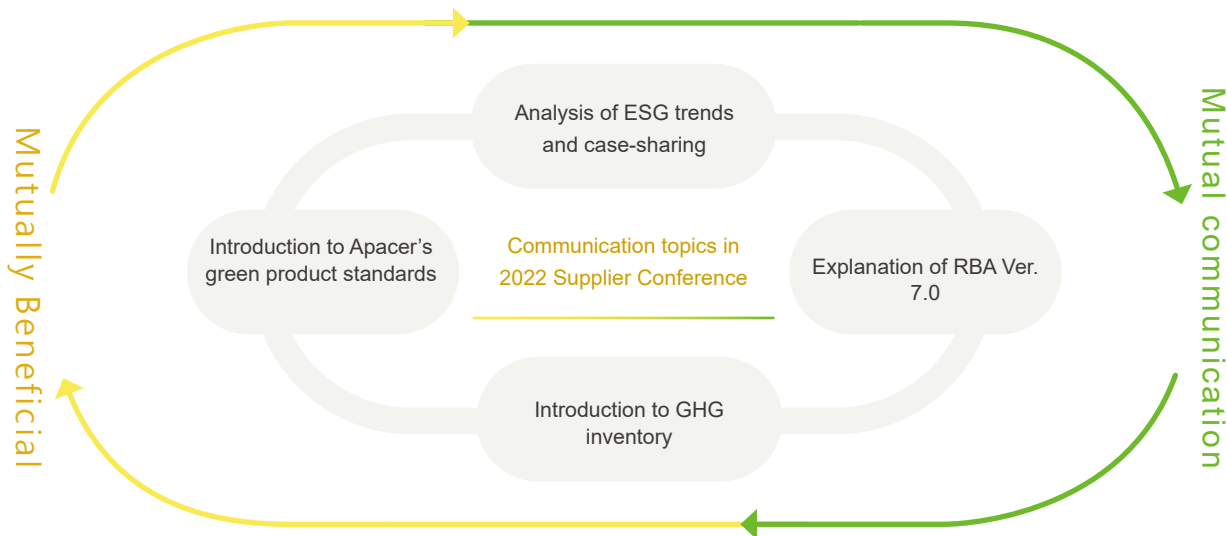
**82%**

Level of satisfaction Score:

**94**

Topic comprehension

**94%**



#### Supplier satisfaction questionnaire survey

To accomplish the goal of joint-progress, Apacer conducted a survey-questionnaire on suppliers' level of satisfaction in 2022 in order to understand whether our supplier-partners are satisfied with Apacer's supplier management methods. We compiled our supplier-partners' feedback, identified the unsatisfactory items, and convened review meetings for further improvements.

#### Key achievements of the survey-questionnaire on suppliers' level of satisfaction in 2022



Survey-questionnaire recovery rate  
**97%**

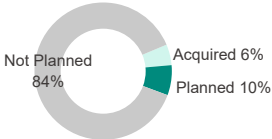


Level of satisfaction Score: **92**



Ratio of dissatisfaction  
**1%**

## Suppliers' sustainability survey and coaching

ESG related issues	Actions in 2022	Results
Survey-questionnaire on suppliers' GHG management	We conducted an investigation on suppliers' GHG management in order to facilitate the assessment of the execution of "supply chain collaboration on carbon emission management"	 <p>Learning suppliers' ISO 14064-1 certification status.</p>
Supplier GHG inventory coaching and guidance	Coaching two suppliers of long-term collaboration to conduct GHG inventory in 2022.	The 2 suppliers completed the GHG inventory form in 2022.
Investigation on outsource vendors' sustainability management status.	Investigation on the compliance of outsource vendors' waste management and water resource management with laws and regulations.	All outsource vendors were qualified.

## Feedback from our supplier-partner



WEI SHIN PLASTIC CO., LTD/

General Manager/Shen Qing-jiang

First of all, I would like to thank Apacer for guiding Wei Shin for the almost past 17 years. Every progress and success of Wei Shin is accompanied by Apacer whose comprehension and trust are the powerful driving force of our company.

In every project, every quality optimization discussion, and every manufacturing process, Apacer's guidance allowed us to achieve comprehensive integrity and growth in Wei Shin systems, which resulted in our joint progress. In 2019, we were thrilled to become Apacer's high-quality partner, fostering our continuous development.

The concept of sustainable development has been popularized among different nations and enterprises in recent years. In 2013, Apacer proposed the green energy supply plan. Apart from the compliance of RoHS certified materials in all products, we must also include ESG (Environmental, Sustainable, Governance) into our operating goals. The primordial goal is carbon emission reduction. We hope to have another leap forward under Apacer's leadership and shoulder the corresponding responsibilities and missions.

As we look back and forward, we want to sincerely extend our gratitude toward Apacer. Wei Shin believes that with our joint effort, we will be able to embrace the new future together. A joint-advancement and a win-win achievement!

## Major Topic 3.2

## Customer relationship management

## ● Customer relationship and quality management

To provide customers with high-quality products and meet their needs, Apacer has introduced ISO 9001: 2015 Quality Management Systems based on the P-D-C-A (Plan-Do-Check-Act Cycle) management cycle so that all stages in operations and production conform to the policy specifications and meet the goals. It is systemic management that can guarantee product quality.



## ● Customer service niche - providing the best service experiences

### Global marketing channel

To be in line with the market dynamics based on the local features, we have proactive actions in the construction of global marketing channels, setting up operation offices in the USA, the Netherlands, Japan, Hong Kong, mainland China, and India, marketing our own brands and cultivating the local markets.



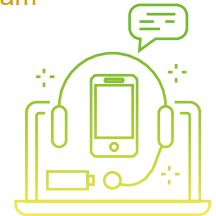
### Customized services

Along with the demand growth of memories for mobile devices and equipment, Apacer is committed to tailor-made products and services for our customers. Based on the customers' needs, we can jointly obtain leading advantages in the market.



### Excellent customer service team

In response to the diversity and compatibility of different platforms and applications, we offer technological analyses based on customers' requests. Apart from the existing customer service system, we have further developed a new generation platform in collaboration with our customers which facilitates product R&D and customer communication.



## ● From R&D to post-sales services: Always thoughtful for our customers

"Access the best" is Apacer's brand promise. Based on users' experiences, we pay attention to every detail in product design and take our customers' feedback as the key cornerstone for progress, striving for perfectionism. We have expressly set up quality and HSF policies: "delivering competitive, defect-free and HSF products and services on time to satisfy customers", offering customers with the best service experiences.

### Development and design



#### Take customer feedback

Based on user experiences, we shall provide support in planning the optimal product profile and structuring a convenient, high-quality, and enriching digital storage lifestyle.



#### Maintain insight into innovation

We provide the most pioneering insight into the latest technology innovations, industry direction, and customer demand, tailoring the optimal solution for each customer, and assisting our customer's substantial growth in competitiveness.

### After-sales services



#### Global service network

Through the localized real-time sales and technical services provided by our local staff and technicians, we ensure that customers will enjoy an experience with 100% satisfaction



#### Global logistic system

By integrating all interfaces of logistic technologies, we offer our customers the swiftest and most effective logistic services, while real-time logistic progress updates can be acquired anytime.

## ● Customers' privacy protection

Apacer cares about customers' privacy as we ensure our customers' privacy with the highest standards, setting comprehensive protocols to protect our customers' privacy information. In 2022, there were no complaints regarding customer information leakage or violation of customer privacy rights. We will keep this record and be prepared for any possible future risks in advance.

### Customer privacy protection measures



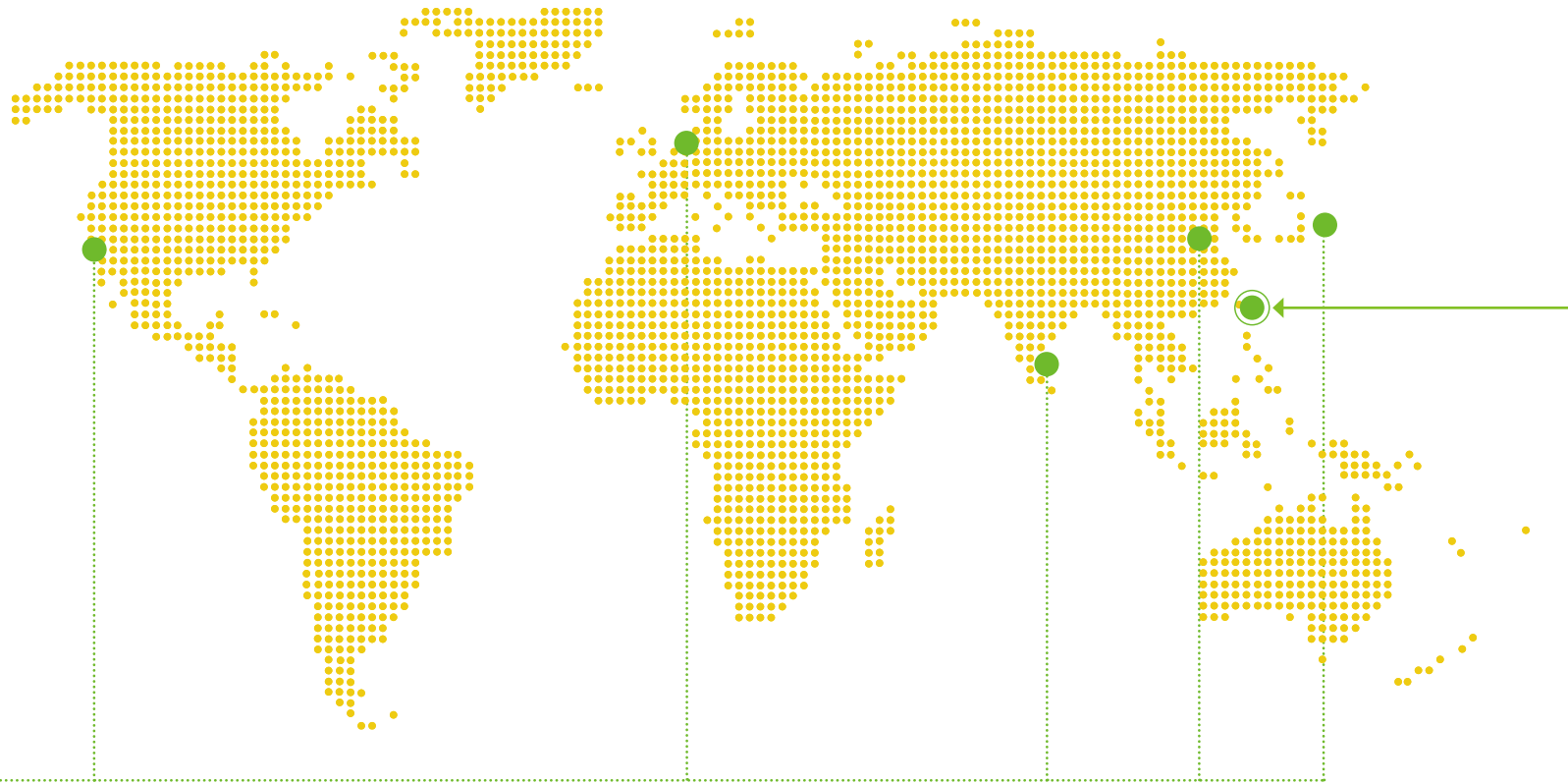
#### System

- Contract guarantee: our contracts include NDAs.
- Customer code system: We use customer code to hide customers' real names.
- Independence of process specifications: we avoid customers knowing each other's product privacy in the event of the same manufacturing process.

#### Technology

- Information equipment security control and management: we prevent viruses or hackers from leaking customer privacy.
- Documentation access control and management: we limit the access to information.
- System access control and management: the access to customers' information inquiry and operation is limited.
- Access control and management: access system is set in machine rooms and production lines.

## ● Global post-sales service system



### Global

- Localized real-time services are provided by local staff and technicians.
- Professional logistic plans with real-time progress updates, efficient processes, and modest cost, offer the swiftest and most convenient logistic services for customers.

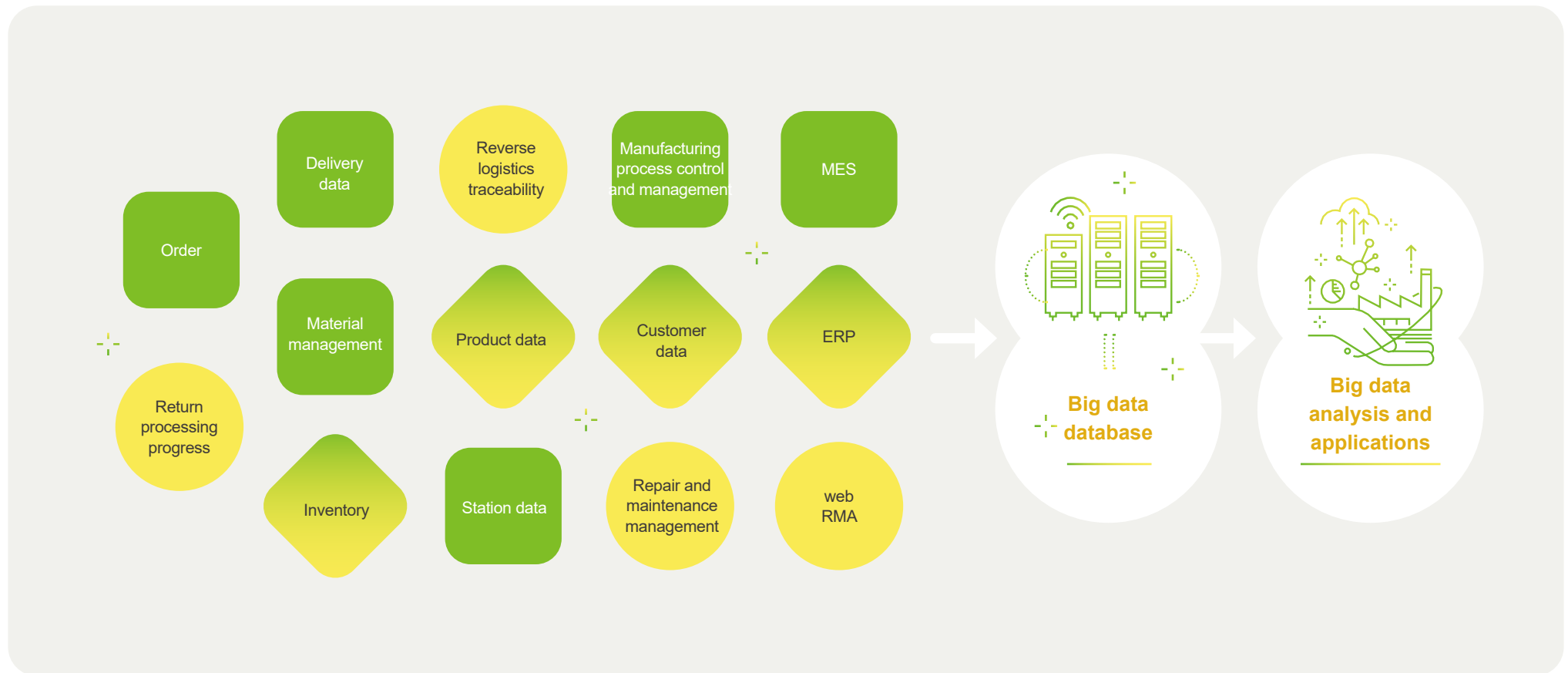
- The Customer Service Dept. and Sales Dept. are in charge of the technical support, customer complaint acceptance, and the RMA process.
- After-sales services such as product repairs and changes are available at our service centers established in northern, central, and southern Taiwan, or through our agents.

### Taiwan

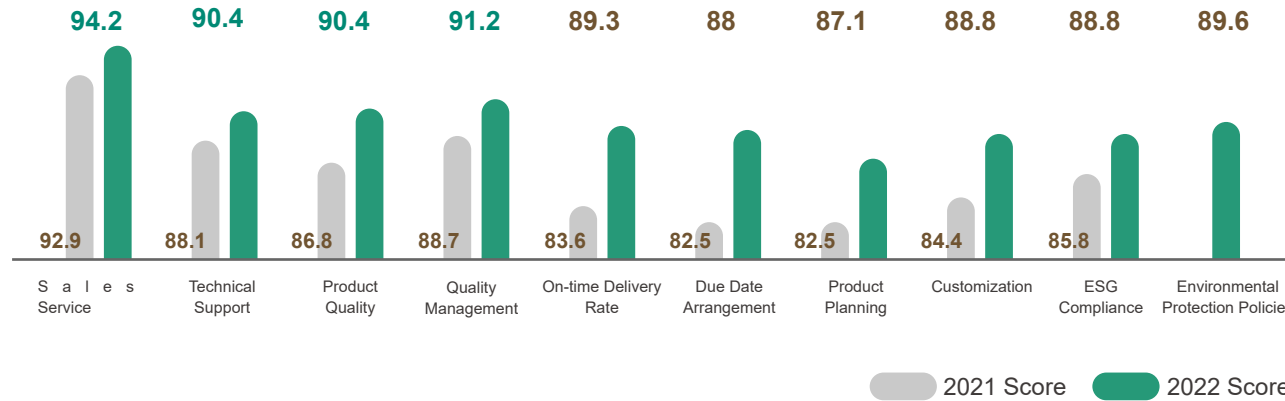
## ● Connecting service systems to offer comprehensive services

To offer our customers the most comprehensive services, Apacer has integrated ERP (Enterprise Resource Planning, enterprise resource planning system), MES (manufacturing Execution System, manufacturing execution system), webRMA (web Return Merchandise Authorization, after-sales service portal), and other systems, circling up information connection and database linkage. This enables us to strengthen the traceability of information from the manufacturing process, repair and maintenance, delivery, and after-sales services. We meet our customers' needs with this all-inclusive service.

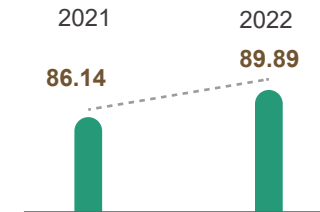
Also, the cross-system data integration facilitates data collection and analysis. For instance, through data connection and database linkage, we can collect material management, manufacturing process, customer information, inventory, repair and maintenance, delivery, after-sales services, and other big data, and process them with subsequent analysis and applications. This allows us to understand the needs of different clientele and enhance our product design as well as manufacturing processes, offering products and services that go beyond customers' expectations and thus, fortifying our company's competitiveness.



Scores of level of satisfaction in every aspects



Score of customers' overall level of satisfaction



### Key achievements in the Customer satisfaction questionnaire survey in 2022



**73 customers as survey-questionnaire recipients**



**Survey-questionnaire recovery rate of 100%**



**Level of satisfaction of 89.89**

In the future, we will use the score of this year's survey-questionnaire as the benchmark and take proactive actions in the review, analysis, and enhancement in order to provide products and services that meet customers' needs.

### Multiple communication channels with customers

Upholding the "service first" spirit, Apacer cares about communication with our customers, so we have proactively set up smooth and diversified communication channels in order to understand our customers' needs and to offer instant and comprehensive services. The communication channels with customers can be divided into three types: permanent, regular, and irregular channels. Listening to customers' feedback and opinions is a fundamental nutrient for Apacer to enhance and develop customer relationships.

Type	Communication channel
Permanent	· Official website
	· Official social media (YouTube/LinkedIn/Facebook/Instagram)
	· Customer service e-mail
	· After-sales service website
Regular	· Sales/customer service team
	· Customer satisfaction questionnaire survey / Every year
	· Sustainability Report / Every Year
Irregular	· Sales review with major customers / Every quarter
	· Press conference release
	· Promotional video-clips
	· CRM system tracking customers' needs and product progress
	· Customer visits
	· Customer audits



## Chapter IV

# A Better Partner for a Friendly and Healthy Workplace

### Vision

Talent development strategy: Introduce excellent talents to accumulate future technologies, establishing a reliable employer brand. Human resources administration mission: Becoming an enthusiastic, innovative, and reliable professional team of human resources administration.

Human resources administration vision: Building an Apacer learning-oriented organization in a friendly and healthy workplace.

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### Policies and promises

Upholding the core value “Becoming Better Partners” aimed at “delivering on Our Promise, Constant Improvement, Mutually Beneficial”, Apacer has integrated business sustainability and human resources development, allowing our colleagues and organizations to undergo learning-oriented operations. Thus, our colleagues’ knowledge and experiences can be enhanced, fostering performance achievements at the organizational level. At the same time, we care about colleagues’ health and family life, so we build a friendly and healthy workplace that enables the balance of work and life.

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## Major Topics of this chapter

Major Topic				
Occupational health and safety				
Impact description	In line with the laws and regulations, we offer safe and health work environments and conduct periodic inspections and improvements. A safe workplace for the employees will certainly be beneficial for the operations. ·Actual positive aspects: Keeping employees' health and safety and enhancing the company's long-term operational performance. ·Actual/potential negative aspects: In case of inappropriate occupational disasters, the company's operational performance may be affected.			
Policy promises	By following international occupational safety and health standards, Apacer establishes a safe and healthy workplace environment. By keeping the A+ EAPs Employee Assistance Program, we create a friendly and healthy workplace that protects our talents' mental and physical health and safety, creating win-win achievements.			
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	Promotion of A+ EAPs Employee Assistance Plan	Organized as expected	Organized as expected	Things Accomplished
	Certification of ISO 45001:2018 Occupational Health and Safety Management Systems	Certified	Certified	Things Accomplished
	Occupational safety and health training	Relevant personnel trained 100%	Relevant personnel trained 100%	Things Accomplished
	In terms of the actual negative impact occurred (occupational disasters), Apacer will conduct remediation through incident investigation and review of preventive measures. <For details, please refer to 4.2 Employee Safety and Health>			
Stakeholder Engagement	Stakeholders	Communication method	Frequency	Complaint mechanism
	Employees	Executives Management Committee meetings	Monthly	Complaint mechanisms, channels and links are permanently located at the top of the intranet.
		Occupational Safety and Health Management Committee meetings	Quarterly	
		Sustainable Development Committee meetings	Quarterly	
		Intranet promotion of occupational safety knowledge and activities	Irregular	
Sustainability goals		Assessment methods		
Short-term goals (2023)	·The number of occupational disasters is less than one every half a year (excluding commuting traffic accidents & non-occupational safety factors). ·Keep the certification of ISO 45001:2018		·Number of occupational disasters. ·Certification of ISO 45001:2018	
Mid-term goals (2023-2025)	·The number of occupational disasters is less than one every half a year (excluding commuting traffic accidents & non-occupational safety factors). ·Keep the certification of ISO 45001:2018			
Long-term goals (2026)	·The number of occupational disasters is 0 every half a year (excluding commuting traffic accidents & non-occupational safety factors). ·Keep the certification of ISO 45001:2018			
Sustainable Development Goals of the United Nations				
No direct correlation.				

Major Topic				
Talent attraction and retention				
Impact description	Comprehensive plans are launched to retain talents, ensuring success teams to take over at any time and the enterprise's long-term operations. -Actual positive aspects: Continuous stacking of internal and external talents; continuous fortification of employee welfare; enhancement of the company's long-term operational performance. -Potential negative aspects: In the event of undesirable recruitment rate or turnover rate, the company's operational performance may be affected.			
Policy promises	With the establishment of the double-track talent development system, Apacer has a double-track development structure based on job competencies, in order to promote a talent supply chain mechanism and set up Apacer College. In addition, we try to keep the average salary among peers, implement the A+ EAPs Employee Assistance Program, and build a friendly and healthy workplace so that we can have value-added talents in win-win scenarios.			
Management actions/ Prevention and remedy measures	Actual action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	Analysis of talent diagram to improve the matching rate of dual-track talents in the talent supply chain.	60% of matching rate of double-track talents in talent supply chain.	64% of matching rate of double-track talents in talent supply chain.	Things Accomplished.
	Retention rate of double-track talents in talent supply chain.	80% of retention rate of double-track talents in talent supply chain.	96% of retention rate of double-track talents in talent supply chain.	Things Accomplished.
	Promotion of health-promoting and community sports instructor mechanism	Reward of company-recruited sport instructor.	Certificate of Sport Business and reward of company-recruited sport instructor.	Things Accomplished.
Stakeholder Engagement	Stakeholders	Communication method	Frequency	Complaint mechanism
	Employees	Executives Management Committee meetings	Monthly	Complaint mechanisms, channels and links are permanently located at the top of the intranet.
		Sustainable Development Committee meetings	Quarterly	
		Promotion of welfare information and inactivities on the intranet.	Irregular	
Sustainability goals		Assessment methods		
Short-term goals (2023)	·70% of matching rate of double-track talents in talent supply chain. ·80% of retention rate of double-track talents in talent supply chain.		·Matching rate of double-track talents in talent supply chain ·Retention rate of double-track talents in talent supply chain. ·External salary survey report. ·External awards. ·Annual turnover rate of total employees.	
Mid-term goals (2023-2025)	·To keep the level of labor market salary among peers P.50 ~ 75. ·To build a friendly and healthy workplace with A+EAPs and third-party's recognition in terms of the friendly and healthy workplace.			
Long-term goals (2026)	·To set a trustworthy employer brand. ·The annual employee turnover rate is below 3%.			
Sustainable Development Goals of the United Nations				
SDGs 5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.				

## Major Topic

Major Topic				
Talent cultivation				
Impact description	Talents of excellency can drive business growth, so it is imperative to motivate colleagues for continuous learning in various ways so that they will become Apacer’s competitive forces. ·Actual positive aspects: Employee cultivation will eventually become assets of the company. An appropriate staff turnover rate can enhance company’s operational performance in the long run. ·Potential negative aspects: In the event of undesirable employee turnover rate, the company’s operational performance may be affected.			
Policy promises	With the establishment of the double-track talent development system, Apacer has a double-track development structure based on job competencies, in order to promote a talent supply chain mechanism and set up Apacer College. In addition, we try to keep the average salary among peers, implement the A+ EAPs Employee Assistance Program, and build a friendly and healthy workplace so that we can have value-added talents in win-win situations.			
Management actions/ Prevention and remedy measures	Action plans	Goals of 2022	Performance of 2022	Effectiveness tracking
	Job competencies inventory in Apacer College.	100% in job competence assessment.	100% in job competence assessment.	Things Accomplished.
	Annual educational training in Apacer College.	Execution rate of above 90% in talent cultivation courses and training.	Execution rate of 99% in talent cultivation courses and training.	Things Accomplished.
Stakeholder Engagement	Stakeholders	Communication method	Frequency	Complaint mechanism
	Employees	Executives Management Committee meetings	Monthly	Complaint mechanisms, channels and links are permanently located at the top of the intranet.
		Sustainable Development Committee meetings	Quarterly	
		Promotion of relevant training information on the intranet.	Irregular	
	Sustainability goals	Assessment methods		
Short-term goals (2023)	·Job competence evaluation rate of 100% in Apacer College. ·Execution rate of above 90% in talent cultivation courses and training in Apacer College.	·Evaluation of job competence inventory. ·Annual educational training. ·Relevant external awards. ·Functional availability rate.		
Mid-term goals (2023-2025)	·Third-party recognition in terms of external talent investment and development.			
Long-term goals (2026)	·Introduction of excellent talents for future technology stacking. ·Functional availability rate enhanced to above 90%.			
Sustainable Development Goals of the United Nations				
SDGs 4.4 By 2030, to have substantially increase in the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.				

## 4.1

# Employee overview

## ● Apacer committed to the promotion of friendly and healthy workplace

All colleagues are provided with a safe and dignified workplace! To implement workplace diversity, discrimination based on age, color, age, gender, sexual orientation, nationality, disability, pregnancy, belief, political stance, marriage, education, and other factors protected by the laws and regulations are prohibited. Please refer to "Employees' rights and benefits" in this unit. Gender equality has also been advocated. To prevent and eradicate sexual harassment, "Measures of Complaint and Punishment for Sexual Harassment at Workplace", "Measures of the Prevention, Complaint, and Investigation of Sexual Harassment", and the promotion of sexual harassment report procedures are set. Please refer to 4.3 for the multiple and smooth employee communication channels and sexual harassment report procedures.

The overall gender ratio of employees and high management is quite even. Please refer to the section of Apacer's global employee distribution and the employee structure in Apacer Headquarter. The number of overall training hours for employees is also quite unified. For further details, please refer to CH4.4 for the average training hours for employees. The gender-salary ratio of the different job categories is also well-balanced. For further details, please refer to CH4.4 for overall salary ratio.

## ● Employees' rights and benefits

Apacer follows the RBA regulations which have higher standards than the national regulations to guarantee employees' rights and benefits. Since 2017, we have joined the "Electronic Industry Citizenship Coalition (EICC)" and proceeded with brand rebuilding to be in line with the alliance. We've also keep an active participation in the Responsible Business Alliance (RBA) and won the silver recognition twice in a row.

### Employees' rights and benefits



#### Guarantee of employee's rights and benefits

- All employees can have the same human rights guarantee without discrimination, regardless of their race, color, age, gender, sexual orientation, nationality, disability, pregnancy, belief, political stance, marital status, education, and all other factors.
- All recruited and hired employees shall sign the labor contract on the date of employment in order to guarantee employees' rights and benefits.
- We care about all labor issues, including freedom of employment, young labor, working hours, salary and welfare, humane treatment, anti-discrimination, anti-harassment, and freedom of association.
- There was no incident of discrimination or forced labor in 2022.



#### Guarantee of the freedom of association

- The measures for the management of labor union and association is explicitly stated, so employees can exercise their freedom to organize associations and their rights to set up and/or participation in the unions.



#### Prohibition of illegal employment of child labor

- We have never employed labors under 16 years old and strictly prohibited underage employees from engaging in work with danger. The Measures for the Remediation of Child Labor Employment and Measures on the Management of Underage Workforce are explicitly stated in the company.



#### Multiple communication channels

- The Measures of Employee Complaint Handling is explicitly stated to solve issues related to employees' rights and benefits and unfair treatment.
- Organization of labor-management meetings on a regular basis in order to strengthen the mutual-trust relationship.

## ● Workpalce environment

Upholding the core value of “Delivering on Our Promise, Constant Improvement, Mutually Beneficial”, Apacer has built a friendly and healthy workplace for our colleagues. Apacer deems our colleagues as important work partners and families, hoping that they can work and enjoy the comfort and ease of being at home every day. Therefore, we set up a Employee Lounge, Pressure-Relieving Workout Area, Leisure Reading Area, Leisure Entertainment Area, and Stress-Relieving Massage Area on the first floor, offering multi-functional creative de-stress and leisure spaces. On every floor, we also have independent conversation rooms of different styles so that our colleagues can use such rooms in their own way, reducing the sense of restraint of an office. With the diverse spatial design, we hope to inspire them with unlimited creativity.



Lobby in Apacer headquarter



Employee Lounge



Pressure-Relieving Workout Area



Stress-Relieving Massage Area



Leisure Reading Area



Leisure Entertainment Area

## ● Overview of global employment

### Number of employees worldwide in the past 4 years

#### Number of employees worldwide in the past 4 years

By the end of 2022, Apacer has a total of 574 employees worldwide. Direct employees in the production lines accounted for 27%, while indirect employees accounted for 73%. In recent years, the overall ratios of direct and indirect employees have no significant differences.

Number of Apacer's employees worldwide				
Year	2019	2020	2021	2022
Number of employees	586	539	536	574
Direct employee (%)	30%	27%	28%	27%
Indirect employee (%)	70%	73%	72%	73%
Note 1: Direct employee: refers to the employees engaging in machine operations or production and manufacturing tasks.				
Note 2: Indirect employee: refers to the non-direct employees.				
Note 3: The 2022 data includes information from the subsidiary UDInfo.				



## Global employment distribution in 2022

Regarding Apacer employees around the world, based on the statistics of gender distribution, female employees accounted for about 54%, while male employees accounted for about 46%. The gender ratio was well-balanced.

Apacer's global employment distribution														
Category	Gender						Work area							
	Female		Male		Total number		Headquarter		Taiwan Subsidiary		Oversea Subsidiary		Total number	
	Number (person)	Percentage (%)	Number (person)	Percentage (%)	Number (person)	Percentage (%)	Number (person)	Percentage (%)	Number (person)	Percentage (%)	Number (person)	Percentage (%)	Number (person)	Percentage (%)
Total employee number	312	54%	263	46%	575	100%	469	82%	36	6%	69	12%	574	100%
Number of permanent employees	307	98%	262	100%	569	99%	464	99%	35	97%	69	100%	568	99%
Number of temporary employees	5	2%	1	0%	6	1%	5	1%	1	3%	0	0%	6	1%
No work-hour guarantee Number of employees	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Number of full-time employees	309	99%	263	100%	572	99%	467	100%	35	97%	69	100%	571	99%
Number of part-time employees	3	1%	0	0%	3	1%	2	0%	1	3%	0	0%	3	1%

Note 1: Permanent employee: full-time or part-time employees who signed irregular labor contracts.

Note 2: Temporary employee: employees who signed regular labor contracts. The contract terminates at a specified time or when a specific mission or event with an evaluation timeline is completed (e.g. upon the completion of a project or the return of the employee who needed a substitute).

Note 3: Employees without work-hour guarantee: employees who have no minimum or fixed daily, weekly or monthly work-hour guaranteed; however, depending on the needs, they are available for the work when needed, such as temporary employees, employees with zero-hour contracts, and on-call employees.

Note 4: Full-time employee: employees with weekly, monthly, or annual work hours based on the work hours as stipulated by the national laws and regulations and by practical definition.

Note 5: Part-time employee: employees whose weekly, monthly or annual work hours are less than those of full-time employees.

Note 6: The above data includes information from the subsidiary UDInfo.

Note 7: Oversea subsidiaries: including USA, the Netherlands, Japan, China, and India.

## Employee status at the headquarter and subsidiaries in Taiwan

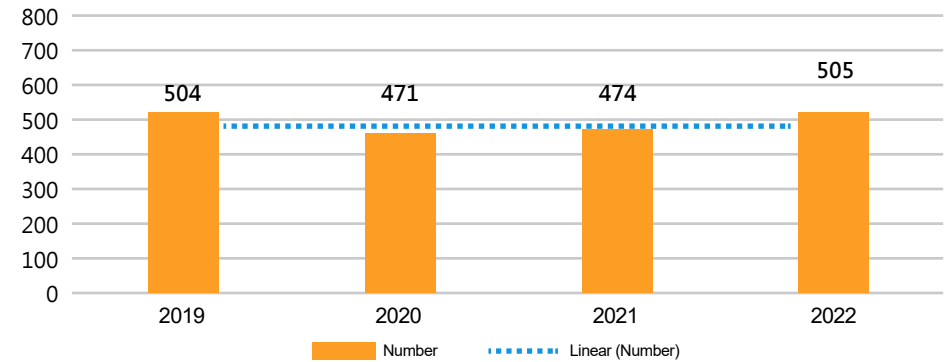
## Number of employees in the quarter in the past 4 years

Number of employees at Apacer's headquarter and subsidiaries in Taiwan				
Year	2019	2020	2021	2022
Number of employees	498	463	465	495
Number of managers	6	8	9	10
Total	504	471	474	505

Note: Information from the subsidiary UDInfo is included in the 2022 data.

Apacer cares about the development of local talents. In 2022, the headquarters and the subsidiary in Taiwan have a total of 505 employees. Among them, local employees account for more than 90% of the staff. There are a total of 10 managers, including the Chairman-CSO, General Manager, Deputy General Manager, directors of the different centers, and Accounting Director. All of them are local Taiwanese employees. The total number of employees was almost the same during the past few years, without a significant difference.

Number of employees at Apacer's operating headquarters and Taiwan subsidiary



## Employee overview at the headquarter and Subsidiary in Taiwan in 2022

## Statistics of employees

As Apacer follows the laws and regulations stipulated by the government, we protect the job quota for minority groups and people with disabilities. According to the Ministry of Interior's Implementation Regulations on Memorial Days and Holidays, every year, we offer one day of ritual leave for employees of indigenous origin as we respect the rituals and ceremonies of the indigenous tribes. Also, according to the Ministry of Health and Welfare's People with Disabilities Rights Protection Act, we hire a certain amount of people with disabilities; if the number is not sufficient, we will pay the penalty instead based on the laws and regulations.

The statistical data of the employment details are as follows:

Employee distribution at Apacer's headquarter and the subsidiary in Taiwan						
Category	Gender					
	Female		Male		Total number	
	Number (person)	Percentage (%)	Number (person)	Percentage (%)	Number (person)	Percentage (%)
Total employee number	278	55%	227	45%	505	100%
Number of permanent employees	273	98%	226	100%	499	99%
Number of temporary employees	5	2%	1	0%	6	1%
Number of employees with no work-hour guarantee	0	0%	0	0%	0	0%
Number of full-time employees	275	99%	227	100%	502	99%
Number of part-time employees	3	1%	0	0%	3	1%

Note 1: Permanent employee: full-time or part-time employees who signed irregular labor contracts.

Note 2: Temporary employee: employees who signed term (fixed time-limit) contracts. This contract is terminated upon the expiry date on the assigned time or when the specific mission or event with an assessment period has been accomplished (e.g. when the project is completed or the employee who needed a substitute has come back to the Company).

Note 3: Employees with no work-hour guarantee: employees who have no minimum or fixed daily, weekly or monthly work-hour guaranteed; however, depending on the needs, they are available for perform tasks if necessary, such as temporary employees, employees with zero-hour contracts, and on-call employees.

Note 4: Full-time employee: employees with weekly, monthly, or annual work hours based on the work hours stipulated by the national laws and regulations and by practical definition.

Note 5: Part-time employee: employees whose weekly, monthly or annual work hours are less than those of full-time employees.

Note 6: The above data include the information from the subsidiary UDInfo.

Employee structure in Apacer headquarter and subsidiaries in Taiwan							
Item	Category	Female		Male		Subtotal and	
		Number	Percentage	Number	Percentage	Number	Percentage
Production type	Direct	114	73.10%	42	26.90%	156	30.90%
	Indirect	164	47.00%	185	53.00%	349	69.10%
Job category	Manager	4	40.00%	6	60.00%	10	2.00%
	Non-manager	31	40.30%	46	59.70%	77	15.20%
	Professional	115	50.90%	111	49.10%	226	44.80%
	Sales	14	38.90%	22	61.10%	36	7.10%
	Technician	114	73.10%	42	26.90%	156	30.90%
Educational background	Ph.D.	0	0.00%	2	100.00%	2	0.40%
	Master	30	32.60%	62	67.40%	92	18.20%
	Bachelor (or	178	54.30%	150	45.70%	328	65.00%
	High school (or	66	83.50%	13	16.50%	79	15.60%
	Other	4	100.00%	0	0.00%	4	0.80%
Age distribution	Below 20 years	0	0.00%	0	0.00%	0	0.00%
	21~30 years	44	63.80%	25	36.20%	69	13.70%
	31~40 years	110	54.20%	93	45.80%	203	40.20%
	41~50 years	96	53.60%	83	46.40%	179	35.40%
	Above 51	28	51.90%	26	48.10%	54	10.70%
Marital status	Married	131	50.20%	130	49.80%	261	51.70%
	Single	147	60.20%	97	39.80%	244	48.30%
Job quota	Indigenous	4	80.00%	1	20.00%	5	1.00%
	People with	2	50.00%	2	50.00%	4	0.80%
Total		278	55.00%	227	45.00%	505	100.00%

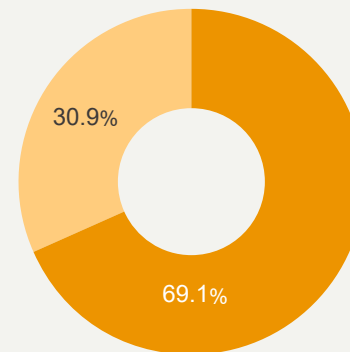
Note 1: Direct employee: refers to the employees engaged in machine operations or production and manufacturing tasks.  
Note 2: Indirect employee: refers to the non-direct employees.  
Note 3: Technician: refers to director employees in the production lines.  
Note 4: In the event of any vacancy due to any changes in personnel, in addition to paying the penalty regulated by the laws, Apacer actively and openly welcomes minority groups and the persons with disabilities to join Apacer, by posting related information on our recruitment page.

### Analysis of employee profiles

Every year, Apacer conducts an analysis of employee categories and basic information, in order to understand the current situation of staff composition to specify employee profiles. Based on this, we design the A+ EAPs Employee Assistance Plan to meet their needs. For further details, please refer to 4.3 "Employee Welfare and Communication".

#### The production category of employees in Apacer headquarter and subsidiary in Taiwan

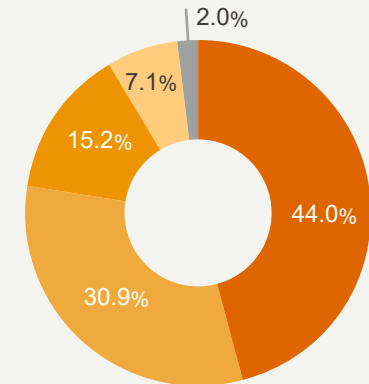
In the production category, indirect employees account for approximately 69%.



- Indirect 69.1%
- Direct 30.9%

#### The job category of employees in Apacer headquarter and subsidiary in Taiwan

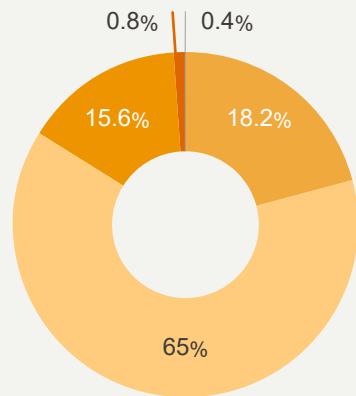
In terms of job categories, professionals account for approximately 45%.  
In terms of managers, the ratio of female and male is 1:1.5 senior staff



- Professional 44.8%
- Technician 30.9%
- Management 15.2%
- Sales 7.1%
- Senior Staff 2.0%

### The educational backgrounds of employees in Apacer headquarter and subsidiary in Taiwan

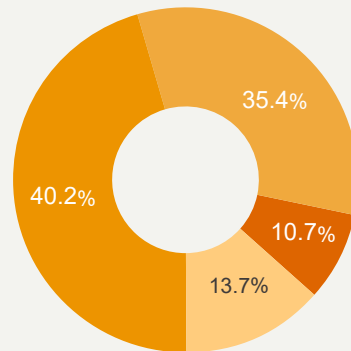
In terms of educational background, employees with Bachelor's (or Associate Bachelor) Degree account for approximately 65%.



- (Associate) Bachelor 65%
- Master 18.2%
- High School 15.6%
- Other 0.8%
- PhD 0.4%

### Age distribution of employees in Apacer headquarter and subsidiary in Taiwan

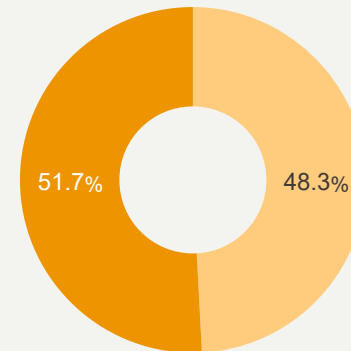
In terms of age distribution, employees of 31 ~ 40 years were the main force, accounting for 40%.



- 31~40 40.2%
- 41~50 35.4%
- 21~30 13.7%
- Above 51 10.7%
- Under 20 0.0%

### Employee's marital status in Apacer headquarter and subsidiary in Taiwan

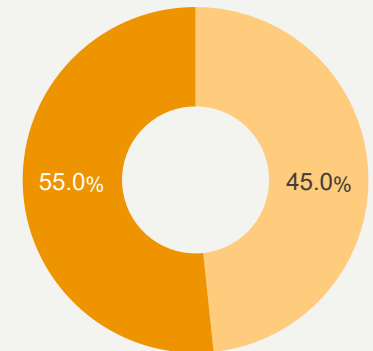
In terms of marital status, the distribution ratio is average.



- Married 51.7%
- Single 48.3%

### Gender distribution of employees in Apacer headquarter and subsidiary in Taiwan

In terms of gender distribution, it is similar to the gender distribution of our employees worldwide, quite average.



- Female 55.0%
- Male 45.0%

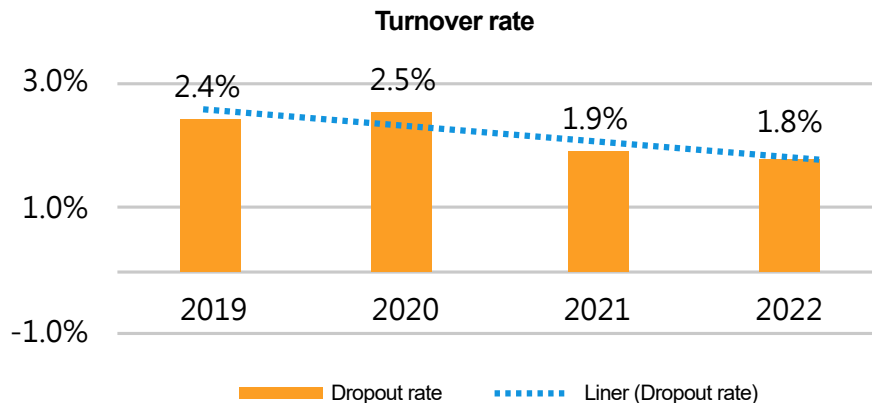


## ●Changes of employees in the headquarter in 2022

Apacer's annual staff turnover rate is lower than 3%. In the future, this will be our goal, to keep a stable supply of human resource and provide adequate talent cultivation and development.

Employee turnover rate in Apacer headquarter and subsidiary in Taiwan				
Item	2019	2020	2021	2022
Average employee number at the commencement of the term	510	505	466	510
Number of new employees	142	115	111	92
Number of resigned employees	Management	7	10	5
	Non-management position	142	143	103
	Subtotal	149	153	108
Average employee number at the end of the term	504	502	467	470
Turnover rate (%)	2.40%	2.50%	1.90%	1.80%

Note 1: Formula of turnover rate: based on the Ministry of Labor's criteria for the Work-Life Balance Award, it is the total number of resigned employees / (annual average number of the employee being hired every month\*12)\*100.  
 Note 2: Resigned employees: including employees of voluntary resignation, non-voluntary resignation, leave without pay, and retirement.  
 Note 3: The 2022 data include the information from the subsidiary UDInfo.



Statistics of new employees and resigned employees in Apacer headquarter and subsidiary in Taiwan							
Category	Group	New employee		Resigned employee		Total	
		Number	Percentage	Number	Percentage	Number	Percentage of the whole
Gender	Female	64	54.70%	53	45.30%	117	60.30%
	Male	30	39.00%	47	61.00%	77	39.70%
Age	Below 20 years old	0	0.00%	0	0.00%	0	0.00%
	21~30 years old	45	58.40%	32	41.60%	77	39.70%
	31~40 years old	33	39.30%	51	60.70%	84	43.30%
	41~50 years old	14	46.70%	16	53.30%	30	15.50%
	Above 51 years old	2	0.00%	1	0.00%	3	1.50%
Total		94	48.50%	100	51.50%	194	100.00%

Note 1: The above data includes information from the subsidiary UDInfo.  
 Note 2: New employee (female/male) ratio = number of new female or male employees / total number of employees in the same category of the year.  
 Note 3: Resigned employee (female/male) ratio = number of resigned female or male employees / total number of employees in the same category of the year.

Statistics on applications for parental leave without pay and reinstatement rate in Apacer headquarter and Taiwan subsidiaries			
Item	Female	Male	Total
Number of employees who met the criteria for parental leave without pay	22	16	38
Number of employees who applied for parental leave without pay	15	1	16
Number of employees of reinstatement of the year (A)	6	1	7
Number of employees who applied for reinstatement of the year (A)	4	0	4
Reinstatement rate (%)	67%	0%	57%
Number of employees reinstated from parental leave without pay of the year (E)	1	0	1
Total number of employees who were still employed 12 months after the reinstatement from parental leave without pay (F)	0	0	0
Retention rate% (F/E)	0%	0%	0%

Note 1: The calculation period was 2022/1/1~2022/12/31.  
 Note 2: The above data includes information from the subsidiary UDInfo

Major  
Topic  
4.2

# Employee safety and health

## Occupational safety and health management system



Since 2013, Apacer has obtained the certification of OHSAS 18001 Occupational Health and Safety Management which was revised and changed into ISO 45001: 2018 Occupational health and safety management systems. Apacer passed again the ISO 45001: 2018 Occupational health and safety management systems in 2020 and continued maintaining the system effectiveness in 2022. By using the PDCA cycles, we achieve occupational safety and health management through risk assessment, risk control and management, and regular improvements.

The occupational safety and health management system encompasses all workers in Apacer headquarter and the subsidiary, which is a total of 505 employees accounting for approximately 98% and a total of 11 non-employee workers (e.g. on-site suppliers, on-site customers, contractors, security personnel, temporary workers, etc.), accounting for approximately 2%.

Internal audit	1. Irregular internal audits: Internal audits are conducted on an irregular basis every quarter and the audit results are presented to the Occupational Safety and Health Committee every quarter.	· Audit results: OK: 119 items NG: 1 item NA: 133 items Non-compliance rate: 0.84%
	2. Regular internal audits: Internal audits are conducted on a regular basis every year. Self-assessment is conducted first before the external audit in order to ensure the comprehensive operations of the relevant management mechanisms.	· Subsequent improvements: Improvement item: The "Social Responsibility Corrective Measures and Procedures" does not mention contractors and suppliers. Improvement method: Revising the documents. Improvement results: Completed.
External audit	External audits are conducted on a regular basis every year. Any renewal, change or transfer of certificate is conducted based on the management system validation term.	· Audit results: The system remained effective after the validation in 2022.

Note 1: The occupational safety and health system encompasses the factories and workers in Apacer headquarter and subsidiary in Taiwan - UDinfo but excluding overseas employees.  
Note 2: The aforementioned workers include: all workers in Apacer headquarter and subsidiary in Taiwan UDinfo and non-workers in Apacer headquarter and subsidiary in Taiwan UDinfo (e.g. on-site suppliers, on-site customers, contractors, security personnel, temporary workers, etc.).

## Occupational Safety and Health Committee

In order to provide a friendly and healthy workplace to reduce the occurrence of occupational disasters, Apacer acts in compliance with the regulations in the Occupational Safety and Health Act, by setting up an "Occupational Safety and Health Committee" which is responsible for the review, coordination and proposals of safety and health-related issues. The Occupational Safety and Health Committee is directly governed by the General Manager; committee meetings should be convened on a regular basis every quarter, for reviewing occupational safety and health-related matters.

### Occupational Safety and Health Committee in 2022

Operations of the Occupational Safety and Health Committee	
Number of labor and management	13 labor representatives and 5 management representatives
Election method of labor representatives	Voted and selected by all full-time employees
Term of the labor and management	2 years
Frequency of meetings	Every quarter (four times every year)
Topics of discussion	1. Occupational safety and health related issues/management plans/testing of operating environments 2. Issues related to ISO 45001:2018 Occupational health and safety management systems 3. Issues related to RBA system 4. Issues related to the management of fire-fighting system

Note 1: According to the laws, the labor representatives in the Occupational Safety and Health Committee should account for more than 1/3.  
Note 2: The above data do not include the information from the subsidiary UDinfo.

## Concrete measures from the Occupational Safety and Health Committee

Based on the four major concrete measures - "disaster prevention", "operating environment testing", "operation safety management and control" and "health management system", the Occupational Safety and Health Committee shall implement occupational safety and health management comprehensively. Operation management and control are implemented on high-risk operating procedures. Through the actions such as disaster prevention and educational training, regular operating environment testing by external qualified institutes, the implementation of special operation management and control as well as task authorizations for automatic examination based on the Occupational Safety and Health Act and safety risk assessment results, and health management systems, we try to minimize our colleagues' risks. In the past few years, there were no work delays caused by occupational diseases.

### Four major actions in occupational safety and health management

Statistics of occupational disasters in 2022

Management action



Disaster prevention



Operating environment testing



Operation safety management and control



Health management system



3 cases  
(Excluding traffic accidents)

2022 Management achievements

100% occupational safety training

100% of compliance with the laws and regulations

Implementation of occupational safety system management

Health checkups for the entire staff every year

## Disaster prevention

In order to prevent disasters from the operations, Apacer has set up an occupational safety and health management plan and established an occupational safety system to manage any potential risks. We executed occupational safety and health management plans, conducted dynamic audits on the operating environments in the factories on an irregular basis, reported all injuries, non-injuries, and fake alarms that will be traced for follow-up improvements, and organized regular educational training for promotions.

According to the "Occupational Safety and Health Act", employees are entitled to the right of refusal, if the employees believe that there may be any immediate hazard in the workplace; they can leave the work environment and gather at the emergency gathering place. In terms of ordinary workplace risks, relevant systems have been established to conduct risk assessments; the risks are further classified for management and improvements. In response to emergency disasters related to wind, water, fire, and earthquake, Apacer has formulated emergency contingency procedures for before, during, and after the occurrence of the event. The implementation of contingency actions may minimize the scope of the hazard. Preventive measures are also discussed and reviewed in order to prevent similar accidents.

Workplace risks			
Risk identification	Risk assessment	Management plan	Review and improvement
<ul style="list-style-type: none"> <li>·ISO 45001 systemic risk identification</li> <li>·Frequency of risk identification: 1 / year</li> <li>·Irregular dynamic audits of factories</li> </ul>	<ul style="list-style-type: none"> <li>·Classification and management based on the risk coefficient. Management plans should be enacted for those reaching more than 4 points .</li> </ul>	<ul style="list-style-type: none"> <li>·Goal setting</li> <li>·Tracking mechanism</li> <li>·Unit in charge</li> <li>·Improvement plan</li> </ul>	<ul style="list-style-type: none"> <li>·Frequency of review and improvement: 4 / year</li> <li>·Review of assessment procedures: 4 / year</li> </ul>

Emergency disaster				
Before the occurrence		During the occurrence		After the occurrence
<div>·Set up emergency contingency plans and procedures; regular reviews and adjustments: 1 / year</div> <div>·Regular disaster drill trainings: 2 / year</div>	→	<div>·Set up an emergency response team</div> <div>·On-site employee's right of refusal</div> <div>·Report mechanism (internal/governmental unit)</div>	→	<div>·Investigation of event</div> <div>·Review of preventive measures</div>

In 2022, a total of 697 people completed the occupational safety and health educational trainings that consisted of 1294 hours. The relevant personnel has completed 100% of the trainings which ensured workplace safety and enhanced employees' safety awareness. This year, there was a total of 5 occupational incidents (2 traffic accidents, 2 falling, and 1 chemical spill) which was an increase compared to those of the previous year. The goal is to have less than 1 occupational disaster every half a year through the implementation of relevant preventive measures.

### Statistics of the occupational safety and health educational trainings in 2022

Training participants	Course	Total number of participants	Total hours
Employees	Occupational safety and health educational training for new employees	163	452
	Occupational safety and health educational training for incumbent employees	498	498
	First/Re-training for occupational safety related certificates	25	311
Non-employee workers	Occupational safety trainings for outsource vendors (security/property/cleaning), which were held by the Building Management Committee	11	33
Total		697	1,294

Note 1: Occupational safety and health educational training for incumbent employees: including the subsidiary UDInfo. Other data does not include the information from the subsidiary UDInfo.

Note 2: Occupational safety related certificates: the persons acquiring certificates include Manager of Occupational Safety and Health Affairs, Occupational Safety and Health Personnel, Managers of Organic Solvent Operations, Radiation Protection, Fire Management Personnel, Emergency Personnel, Nursing Staff, etc.

Note 3: Non-employees: refers

to the persons who work for the organization but has no labor-management relationship with the Company, such as on-site suppliers, on-site customers, contractors, security personnel, temporary workers, etc.

### Statistics of employees with occupational injuries and diseases in 2022

Item	Female	Male
Total work hours <sup>1</sup>	504,848	452,184
Total workdays	63,106	56,523
Total number of work-related <sup>2</sup>	2	3
Injury rate (IR) <sup>3</sup>	0.79	1.33
Mortality	0	0
Number of work injury incidents <sup>4</sup>	2	1
Total day of lost time	14	6
LDR <sup>5</sup>	5.55	2.65
Total day of absences <sup>6</sup>	5446.6	3750.9
Absence rate (AR) <sup>7</sup>	0.034%	0.031%
Number of incidents with severe <sup>8</sup>	0	0
Severe injury rate	0	0

Note 1: Total work hours: Calculated based on "total number of employees of the year X total workdays X daily 8 work hours".

Note 2: Total number of work-related injuries: Including the traffic accidents from commuting and business trips.

Note 3: Injury rate (IR) = (Total number of work-related injuries / total work hours) x 200 000\*.

Note 4: Number of work-related injuries: Excluding the traffic accidents from commuting and business trips.

Note 5: Lost day rate (LDR) = (total number of lost days / total work hours) x 200 000\*.

Note 6: Definition of absence: The employee is absent due to the lost of labor abilities, including but not limited to work-related injuries or diseases (including occupational disease, sick leaves, and menstruation leave).

Note 7: Absence rate (AR) = Total number of absences / (total number of employees of the year X total number of work days).

Note 8: Severe occupational injury event refers to death or the worker who suffers from an injury that does not allow him or her to recover to the health state before the injury within 6 months.

Note 9: The above data include the information from the subsidiary UDInfo.

Note\*: 200,000 consists of: 40 work hours in the 50 weeks of the year based on every 100 employees.

Statistics of non-employee workers with occupational injuries and diseases in 2022

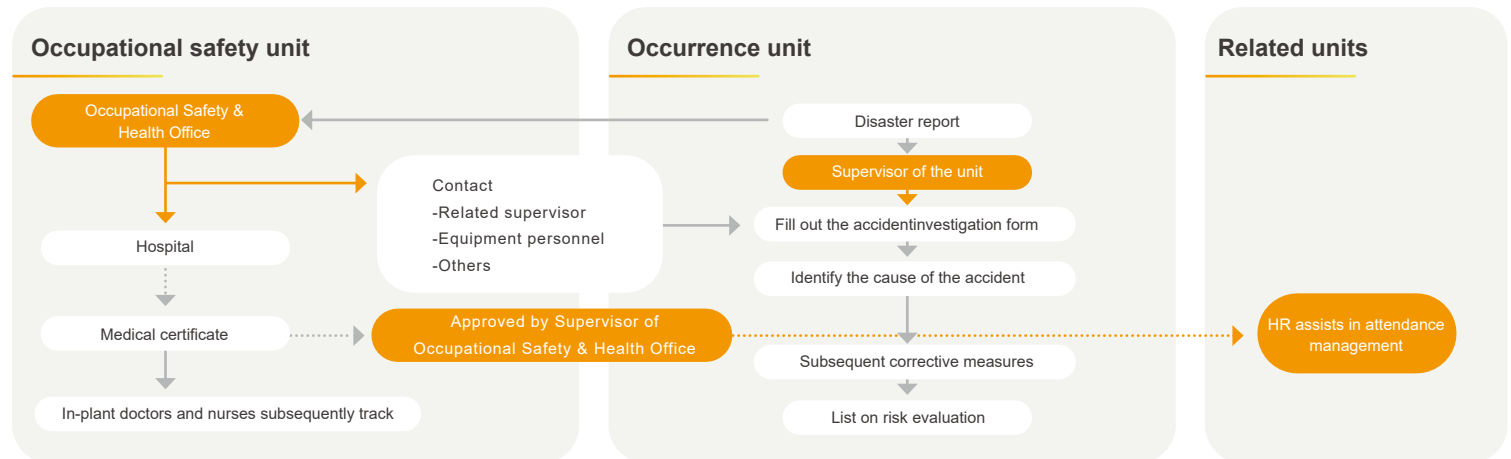
Item	Female	Male
Total number of work-related injuries	0	0
Injury rate (IR)	0	0
Mortality	0	0

Note 1: Non-employee workers: refers to the persons who work for the organization but has no labor-management relationship, such as on-site suppliers, on-site customers, contractors, security personnel, temporary workers, etc. There were approximately 11 non-employee workers in Apacer in 2022

Apacer has set a detailed "Occupational Injury" Investigation Process. The investigator must investigate the cause of the incident together with the labor representatives. The generated report must be approved by the General Manager and the injured colleague must be assisted for his or her recovery. To assist the injured colleague in returning to the workplace as soon as possible, there is a gradual reinstatement system. When the colleague cannot fulfill their duty, the medical staff of the factory must proceed to medical care and provide medical recommendations as well as assist the colleague with insurance payment.

### Operating environment testing

Apacer entrusts an external qualified institution on a regular basis to conduct operating environment testing, which includes testing of dust, organic solvents, carbon dioxide, illumination, etc. In the event of any abnormalities, we will immediately make improvements and corrections in order to guarantee our colleagues' health and safety.



### Operation safety management and control

To maintain the operating environments safe, Apacer has implemented specific operation management and control as well as work permits for overhead operations, hot operations, and ionizing radiation equipment based on the Occupational Safety and Health Act and safety risk assessment results. Also, we have automatic checkups that are in line with the regulations. All machinery and equipment are checked and certified in accordance with the laws and regulations. The operators must obtain professional licenses and receive on-the-job employee training.

To prevent operating hazards, the operators must wear protective gear and equipment according to the nature of operations as set by the regulations. In addition, to ensure the operators not to be exposed to radiation hazards, Apacer has a solid and regular inspection of the equipment; the workers must wear radiation badges and undergo health checkups for radiation operations in order to learn the amount of radiation received by the workers as well as their health status.

### Health management system

To be in line with the colleagues' health status and prevent occupational diseases, Apacer offers regular health checkups for the operators. Depending on the operation type, there are checkups for "general operations" and "operations with special hazards". For workers who are exposed to ionizing radiation, organic solvents, and other substances that are prone to harm their health and safety, we provide further specific examinations. Classification management is also implemented. In 2022, there were 23 operations of special hazards that had specific health checkups; the outcomes were normal. In the event of any work-related health abnormalities, further assessment and classification shall be conducted. The nursing staff would implement a "Personnel Risk Evaluation Form" to assist in the individual's health status.

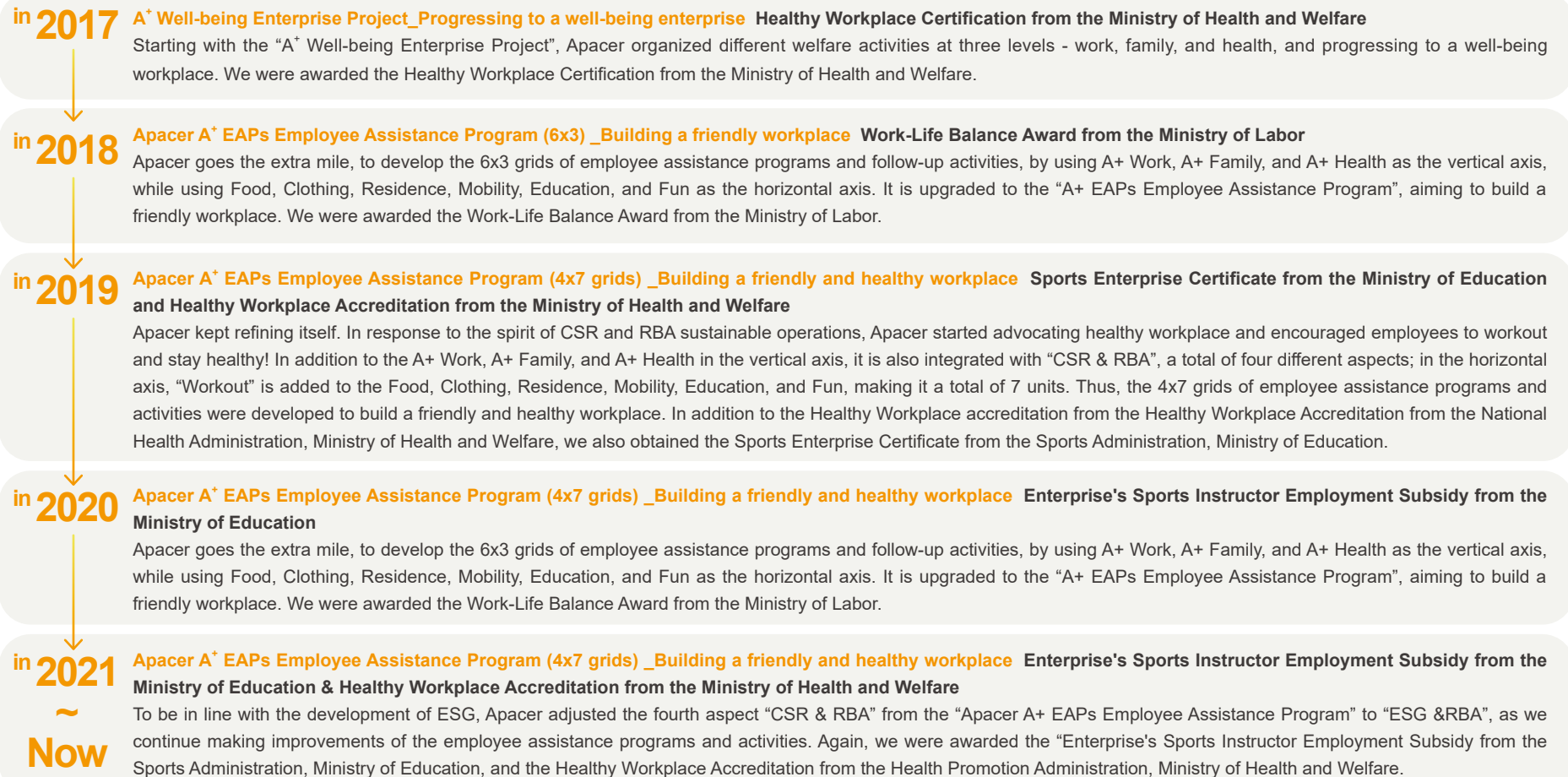
In addition, based on the four principles of "eat decently, exercise diligently, know your body, always stay healthy", Apacer has set up a health management system for the colleagues which is integrated with the A+ EAPs Employee Assistance Plan, setting up a series of health and fitness activities. This would fortify the employees' and workers' health management and keep promoting a healthy workplace.

For more Apacer's actions for healthy workplace, please refer to: 4.3 Employee welfare and communication.

# Employee welfare and communication

Apacer promises our colleagues to build a friendly and health workplace worth for long-term investments

## ● Development of EAPs





## Apacer's ESG promotion won the glory of Best Companies To Work For In Asia Award



HR Asia, a senior human resources professional magazine in Asia, has recently revealed the list of best companies of the year, and Apacer was awarded the 2022 Best Companies To Work For In Asia Award. Apacer General Manager Chia-Kun Chang indicated that Apacer has always been committed to the promotion of ESG in order to achieve business sustainability. Among them, one of the key indicators in the social aspect is employee care. This award shows that Apacer has received positive feedback on the corporate culture and employee feelings, displaying the invisible value of the employer brand.

It was also mentioned by Apacer General Manager Chia-Kun Chang that Apacer has always cared about employees. With its insistence on the brand core value "Becoming a Better Partner", Apacer has built a colleague-approved workplace and a friendly and healthy work culture. In addition to the Work-Life Balance Award, Healthy Workplace Accreditation, and Sports Enterprise Certificate, Apacer has been promoting the A+ EAPs Employee Assistance Program in the past few years. Based on this

structure, the "dual-track talent development system" and talent supply chain were planned, and Apacer College was established in 2021.

During the COVID-19 pandemic, in consideration of our colleagues' distress in terms of the overall environment, Apacer not only provided employee care letters, anti-pandemic gifts, and vaccine insurance in 2021, but also included the anti-pandemic insurance in 2022, continued the cultivation of sports instructors, and encouraged our employees to join Sports Day and other sports associations. In this way, we kept our colleagues physically and mentally healthy with the common goal of fighting against the pandemic. In the future, we will continue promoting various ESG strategies and actions to push forward the growth synergy for sustainability development.

## ● Apacer A+ EAPs Employee Assistance Program

**Apacer A+ EAPs = A+ Work + A+ Family + A+ Health + ESG & RBA**

The human resources team conducts the annual classification of employees and basic data analyses. The design prototype and concept of Apacer A+ EAPs were proposed in 2017. With the main purpose of achieving work-life balance, various activities and solutions that fit the colleagues' needs have been designed. In terms of the marital status and gender distribution average of Apacer's employees in Taiwan, employees aged 31 to 50 accounted for approximately 75% of the staff, while office work accounted for approximately more than 90% (rotatory shift workers accounted for approximately more than 30%). Therefore, the various activities in Apacer headquarter are planned to fit every colleagues' work and needs. Taking the rotatory shift workers in the production lines, who have day shifts and night shifts, we tried to meet Apacer' colleagues' specific needs.



**A+ Work**

**A+ Family**

**A+ Health**

**ESG**

**RBA**

	Food	Clothing	Residence	Mobility	Education	Entertainment	Workout
<b>A+ Work</b>	Daily three-meal subsidy Food allowance Annual departmental gatherings	Apacer uniform Production line workwear	Relaxing Lounge Creativity Room Professional property cleaning	Flexible working hours Remote work Work from home	TTQS certification Newcomer training On-the-job training	Number of vacation better than the ones specified in legal regulations Annual year-end party Birthday voucher/activities	Sports Enterprise Certificate Sports instructor
<b>A+ Family</b>	Daily dinner subsidy Market fair Special contract shops	Exclusive price for Apacer employees Market fair Special contract shops	Breastfeeding room of Gold Award	Group insurance better than regulations Insurance for dependents	Handbook for first-time mother Birth incentives Childcare measures	Family Day Company trip Family art gallery	Workout Day
<b>A+ Health</b>	Vegetarian day	Workwear laundry	EHS certification Health center	Workout community	Health promotion activities Health promotion talks	Weekly massage Health checkup better than regulations Professional medical consultation	Sports associations Workout contests
<b>ESG</b>	Qualified group-meal providers	Laundry room free for migrant workers	Dormitory free for migrant workers Intermediary fee subsidy for migrant workers	Transportation allowance for migrant workers	Promotions and training for migrant workers	Vouchers for the three main festivals Holiday activities	Pressure-Relieving Workout Area

## APs Achievements



**A+ Healthy**

**A+ Family**

**A+ Work**

## Enjoy Job /

2022-- Best Companies To Work For In Asia Award  
2018-- Work-Life Balance Award from the Ministry of Labor

## Enjoy Life /



2022- Sports Enterprise Certificate from the Ministry of Education  
2021- Healthy Workplace Accreditation from the Ministry of Health and Welfare  
2021- Enterprise's Sports Instructor Employment Subsidy from the Ministry of Education  
2020- Enterprise's Sports Instructor Employment Subsidy from the Ministry of Education  
2019- Sports Enterprise Certificate from the Ministry of Education  
2019- Healthy Workplace Accreditation from the Ministry of Health and Welfare  
2017- Healthy Workplace Accreditation from the Ministry of Health and Welfare

## A<sup>+</sup> EAPs \_ A<sup>+</sup> Work

### Sports instructor hired - Sports Enterprise Certificate

Apacer encourages colleagues to join association activities that are good for their physical and mental health. We provide association creation funds and association subsidies to support the operations and development of the associations. We offer colleagues de-stressing channels through workouts and promote cross-unit exchanges via associations.

We worked in line with the Sports Administration in the promotion of sports instructors. After obtaining the sports enterprise subsidy, Apacer recruited sports instructors for continuous promotions. We were consecutively granted the Sports Enterprise Certificate and Enterprise's Sports Instructor Employment Subsidy from the Sports Administration of the Ministry of Education. Sports instructors offered coaching and advices for each of the sports associations, enhancing the intensity and width of fitness training and promoting the benefits of workouts.



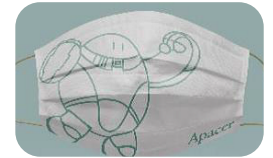
Sports instructor hired - Sports Enterprise Certificate

## A<sup>+</sup> EAPs \_ A<sup>+</sup> Family

Upon the alleviation of the pandemic, Apacer organized Apacer Family Day in Taipei Children's Amusement Park in September 2022. A total of 880 persons (including dependents) joined the event. It was a way to express our gratitude towards our colleagues and their dependents' support towards Apacer as well as a celebration of Apacer's 25th anniversary. With the theme of Apacer amusement park, we designed family and parent-children contests and sports activities for Family Day so that our colleagues and their families could have fun together. Each of them was given an Apacer amusement park Easy-Card with \$400 of credit as well as face masks of the Apacer mascot Apa as a souvenir.

On the day of the event, we invited children's favorite Polly as well as Strawberry and Orange from the Yoyo Family to dance with everybody. With a lucky draw of a total bonus of NT\$210000, our colleagues and families returned home happily with all the gifts.

Although the weather of the day was cloudy and rainy resulted from the typhoon's peripheral circulation, our colleagues and their families were still passionate. The level of satisfaction with the event reached 86.3%, which was 7% higher than the previous Family Day.



## A<sup>+</sup> EAPs \_ A<sup>+</sup> Health

Apacer has planned a health management system based on the principles of "eat decently, exercise diligently, know your body, always stay healthy".

### Apacer health management system

#### Eat decently/

Manage your health based on the diet!  
Qualified group-meal providers

#### Exercise diligently/

Workout to stay fit and healthy!

1. Workout communities
2. Sports associations
3. Workout contests
4. Pressure-relieving workout area

#### Know your body/

Reinforce your knowledge regarding health!

1. Health promotion activities
2. Health promotion talks

#### Always stay healthy/

Improve and keep health management results!

1. Happy health checkup better than regulations
2. On-site medical consultation
3. Health insurance better than regulations
4. Weekly massage



## A<sup>+</sup> EAPs \_ A<sup>+</sup> Health

### Eat decently Qualified group-meal providers - Safe and healthy!



In 2022, a total of 45046 people made meal orders.

On average, 182 persons order their meals per workday.

Apacer cares about employees' health. We provide and subsidize our employees' daily three meals.

Apart from selecting reliable and trustworthy providers with a good reputation, we also offer healthy meals with less sugar and oil, hoping that our colleagues would also pay attention to healthy diets. Also, we advocate the importance of healthy tableware and eco-friendliness, so we encourage them to reduce the usage of disposal tableware - from tableware to table! We foster the importance of health and cultivate a correct and balanced diet so that we can stay healthy and energetic every day!

### Exercise diligently 1 Workout communities - Work out to stay healthy!

"Work out to stay healthy!" is the philosophy actively promoted by Apacer Chairman Austin Chen after recovering from meningioma removal surgery. Realizing the importance of health, he encourages all colleagues and workers to keep regular workout habits.

Aiming at the cultivation of good workout habits, the workout communities have been implemented and promoted for five years so that workout routines can be integrated into the life of our colleagues. By the end of 2022, the number of participants reached 269, which is approximately more than 55% of the staff in the headquarter.



In 2022, there was a total of 269 participants.

They walked 240,915,382 steps, which is an equivalent of 81471 kg of carbon reduction.

During the pandemic, Apacer continued the workout activity initiatives. Via JoliSports APP, Apacer workout communities reminded each other to keep the exercise routines. Through the dashboard in the APP, personal health information was recorded so that everyone could easily monitor their physical status with scientific data.

In 2022, our employees walked a total of 240,915,382 steps, which is an equivalent of 81471 kg of carbon reduction. Workout is not only for personal health but also for the planet. Let us step-by-step embrace the healthy carbon-reduction new lifestyle!



### Exercise diligently 2 Sports associations - Work out to stay healthy!

It's an extension of the concept of "Work out to stay healthy!". General Manager Chia-Kun Chang encourages our colleagues to join association activities that are beneficial for both physical and mental health. At the same time, association creation funds and activity subsidies are provided to support the operations and development of associations. During recent years, the Enterprise's Sports Instructor Employment Subsidy from the Sports Administration of the Ministry of Education as well as other sports association subsidies also boosted up the development of sports associations.



There were 7 sports associations in 2022.

The number of participants reached 93 people.

In 2022, there was a variety of sports associations in Apacer, including: golf association, basketball association, badminton association, boxing aerobics association, combat aerobics association, Pilates association, and jogging association. With a total of seven major sports associations, the number of participants reached 93, which was about 20% of the total staff in the headquarter. With the care and assistance of the sports instructors, sports have become healthy de-stressing channels for colleagues. The cross-unit exchanges also allowed the participating colleagues to enjoy a healthy and enriched lifestyle.

## A<sup>+</sup> EAPs \_ A<sup>+</sup> Health

### Exercise diligently 3

#### Workout contests - Fun and relaxation into work and life

Under the leadership of the General Manager Chia-Kun Chang, Apacer has organized different workout activities for Dragonboat Festival, Mid-autumn Festival, and Family Day in the past few years. In the first half of 2022, the Dragonboat Festival was suspended due to the pandemic, while the Mid-autumn Festival and Family Day were celebrated as scheduled in the second half of the year.

Apacer Mid-autumn Festival was hosted in the headquarter. In addition to food and fun, the workouts were the most important part. In 2022, we launched the basketball workout contests, which were our colleagues' favorite. The total prize is worthy of NT\$50000, and a total of 216 persons joined the contest, which was about 46% of the staff in the headquarter.

Organized according to the venue and topography, the dancing contest was organized for Apacer Family Day. POLI+Amber+Strawberry+Orange led everybody to do the warm-up dance. Strawberry and Orange from the Yoyo Family selected the winners who were given prizes of encouragement.



A total of 2 workout contests were organized in 2022.

A total of 1096 persons (including employees' dependents) participated in the events.

### Exercise diligently 4

#### Pressure-relieving workout area - Fun and relaxation into work and life

In Apacer headquarter, there is an aerobic section and a flywheel section where flywheels, horse riding machines, and Foosball Tables are provided. Every day in the company is a healthy workout day for our colleagues and workers.



### Know your body

#### Health promotion activities (talks) - Fortification of health knowledge and concepts

In the first half of 2022 when there was a shortage of COVID-19 vaccines in Taiwan, Apacer especially provided COVID-19 vaccines and publicly funded influenza vaccine administration. In the second half, one health promotion activity with technological fitness testing was provided so that our colleagues could learn about their own physical states. Also, one anti-inflammation health promotion talk was hosted to fortify our colleagues' health awareness.



In 2022, a total of four health promotion talks (activities) were hosted.

A total of 207 people participated in the events.

### Always stay healthy 1

#### Happy health checkups better than those as stipulated in regulations and on-site medical consultation - comprehensive health management achievements

Every year, Apacer offers health checkups for all colleagues regardless of age in order to regularly safeguard our colleagues' health and implement the concept of "prevention better than treatment". Every year, based on the health issues of our colleagues' concern and health checkup results, we schedule interviews with on-site medical staff for colleagues of high-risk groups, helping them to detect symptoms as early as possible or make early corrections and/or treatment with the assistance and services of professionals.



In 2022, 2 examinations were added, which was better than those as stipulated in the regulations.

The health checkups had been applied to a total of 434 persons.

A total of 74 persons had medical consultation with the on-site medical staff.

A<sup>+</sup> EAPs \_ A<sup>+</sup> Health

## Always stay healthy 2

## Health insurance better than those as stipulated in the regulations - a guarantee for health management achievements

In accordance with the laws, Apacer provides labor and health insurance for our colleagues and makes pension allocations for the new and old pension systems. Every year, we provide the four major insurances (accident insurance, medical insurance, cancer insurance, and life insurance), which are not only better than the regulatory requirements but also offer a comprehensive guarantee for our colleagues and their families. As we are happy to bear the experience rate, colleagues can also insure their families at their own cost, so that everybody can have comprehensive guarantees.

In 2022 Q1, as Apacer expected another peak of the pandemic, we insured pandemic prevention insurance for all our colleagues. In fact, the insurance was discontinued shortly afterward, so we actually provided an unexpected additional guarantee for our colleagues.

**幸福安疫專案** 防疫幸福 好簡單  
法定傳染病醫療及費用補償保險

保險項目/計畫類別	計畫一	計畫二	計畫三
法定傳染病住院日額保險金 (最高給付45日)	—	2,000/日	2,000/日
法定傳染病隔離病房追加護理費	—	2,000/日	2,000/日
醫療保險金 (最高給付45日)	60,000	20,000	60,000
法定傳染病醫療保險金 (同一法定傳染病以給付一次為限)	20,000	10,000	20,000
法定傳染病隔離費用補償保險金 (同一法定傳染病以給付一次為限)	606	581	895

**專案特色**

- 法定傳染病 隔離 確診 醫療保障 一次涵蓋
- 單一費率 投保簡單
- 免體檢 無等待期
- 免收據 一次定額給付

**說明**  
法定傳染病：係指行政院衛生福利部依傳染病防治法第三條規定所公告之傳染病名稱。其後「法定傳染病」之項目如有變動，則以衛福部最新公告之項目為準。

單位：新台幣/元

5 major insurance provided in 2022 which was better than those as stipulated in regulatory requirements  
(accident insurance, medical insurance, cancer insurance, life insurance and pandemic prevention insurance)

A<sup>+</sup> EAPs \_ A<sup>+</sup> ESG & RBA

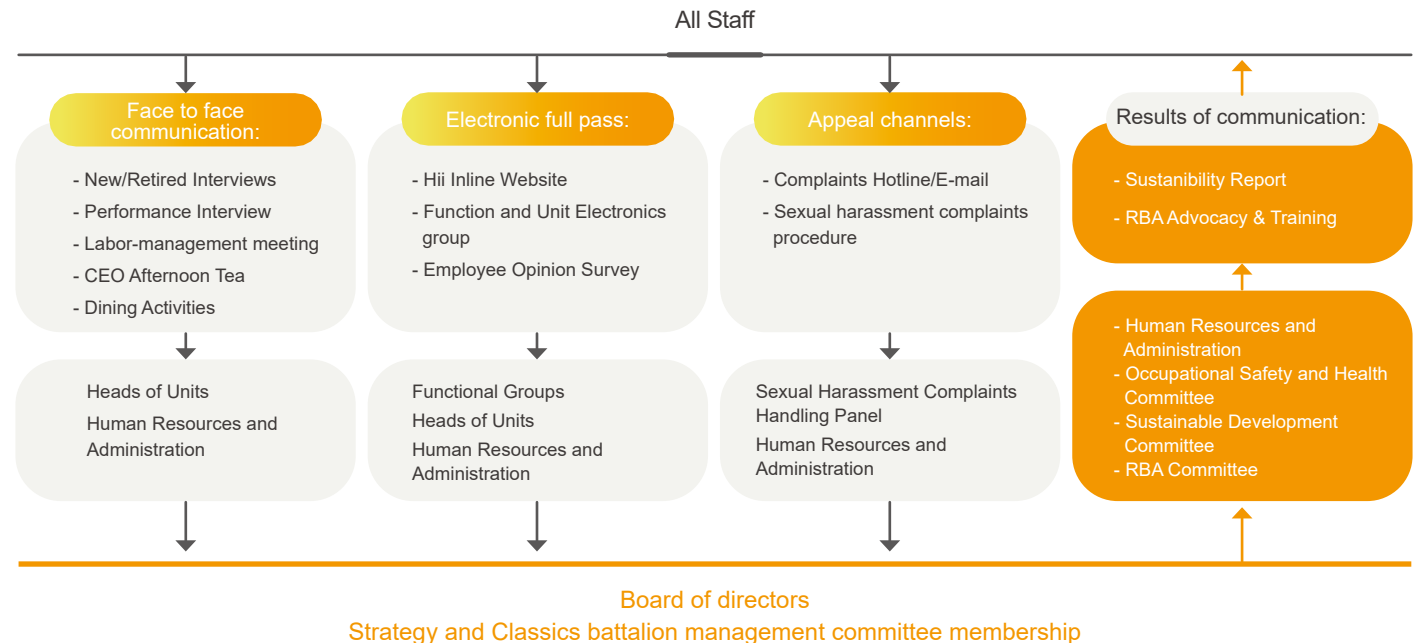
## Various welfare policies for the migrant workers

After Apacer joined the "Responsible Business Alliance" in 2017, we have a deeper understanding of the various expenses of migrant worker coming to work in Taiwan. To take care of our migrant workers as much as possible, Apacer continued providing the monthly intermediary fee subsidy and provided 3 meals at discount prices, meal allowances, and additional free dormitory and transportation allowances. In addition, we also provided assistance in the payment of overseas intermediary fees, health checkup fees and license fees during their term here, return air tickets, etc. In 2020, due to COVID-19, not only did we carry out anti-pandemic promotion and trainings but also fortified the anti-pandemic information in the dormitory, assisting the migrant workers to understand and comply with the anti-pandemic measures and protect themselves.



## ● Diversified and smooth communication channels for employees

For the newcomer colleagues, Apacer organizes interesting education passports and corporate culture camps for new colleagues so that they can easily integrate into Apacer's corporate culture. As for the existing employees, Apacer pays attention to their opinions and feedback, so we have a diagram for the diversified and smooth communication channels for the employees. We also have "Measures of Employee Complaint Handling", "Measures of Complaint and Punishment for Sexual Harassment at Workplace" and "Measures of the Prevention, Complaint, and Investigation of Sexual Harassment", allowing our colleagues to express themselves. If necessary, additional care and assistance will be provided.



### Face-to-face communication

#### - Newcomer meetings ( Monthly regular meetings )

To assist new colleagues to rapidly adapt and integrate into the workplace, we hold regular monthly meetings with them so that we can reply their suggestions/questions and make assessments for improvements.

In 2022, the 5 suggestions/questions proposed by new colleagues were answered or handled.

#### - Performance meetings ( Regular performance assessment every half a year )

Every half a year, we conduct a performance assessment of our colleagues and encourage the supervisors of different units to take this opportunity to conduct performance meetings. This will assist the colleagues to understand their advantages and disadvantages in their work.

#### - Labor-management meetings

Every quarter, we conduct regular labor-management meetings so that both parties have bi-directional communications and conversations regarding the Company's various systems as well as the colleagues' opinions of the company policies, working environment, safety and health, etc.

Regular labor-management meetings every quarter

#### - Afternoon tea with the CEO ( Regular afternoon tea gathering every year )

Every year, the CEO has regular interaction with the talent supply chain members in order to understand the talents' expectations and suggestions regarding the current operations and future development of the Company. The results of the afternoon tea gathering are the key reference indicators for the Company to formulate development and operation plans.

#### Operation of the labor-management meeting

Number of labor and management	5 labor representatives and 5
Election method of labor representatives	Voted and selected by all full-time
Term of the labor and management	4
Meeting frequency	Every quarter (four times every year)
Topics of discussion	1. Company operations and profits
	2. Regulation amendments in response to the Labor Standards Act
	3. Planning of new products of the year
	4. ESG and employee welfare activities



## E-communications

### - Hii Apacer intranet website

Three major units on the website homepage: Promotion of the company's key policies; announcements and information; colleagues can give a "like", ask questions, or post their opinions at any time.



### - Different functions and units' e-groups

Functions and units are encouraged to form their communities with the various social media platforms so that they can have real-time communications, exchanges and information with the ultimate purpose of achieving the same goals.



### - Survey on the employees' opinions

Every two years, a survey on the employees' opinions is conducted. The six driving factors include supervisors, colleagues, salary and remuneration, work development, corporate culture, and overall satisfaction, which are used for understanding the colleagues' commitments in three aspects: value, effort, and job retention.

## Complaint channels

### - Complaint hotline/e-mail

Apacer has formulated the “Measures of Employee Complaint Handling” that is applicable for all colleagues in the Company. This allows them to make use of open and smooth channels to complain about labor inequality or report illegal actions that may affect the company. Also, the complaint channel is in permanent promotion on the intranet website. The complaint channel belongs to the Human Resources & Administration Management Department which must keep the identity of the complainant confidential. After accepting the complaint, the Human Resources & Administration Management Department must reply to the complainant in a written document with proof within 30 days. In case of any objection, the complainant may be appealed again within 10 days. By the end of 2022, there was no complaint from our employees.



### Complaint procedures

#### 01 Application

Applicability: Apacer employees

Requisite for complaint: The complainant may request to keep his or her identity confidential

#### 02 Acceptance of complaint

Reception channel: Human Resources & Administration Management Department

Conditions for acceptance: Formal documentation with name and specific factual content

#### 03 Investigation

Days of investigation: The investigation must begin within 7 days and the investigation report must be provided within 30 days.

Meeting convention: If necessary, a “review committee” should be convened in order to examine the content of the investigation report (the review committee must be composed by both labor and management parties, with at least 5 committee members (odd number) and at least half of the members are female ).

#### 04 Judgement

Complaint judgment approval: The investigation report or meeting minutes must be submitted to the General Manager for approval.

#### 05 Reply

Number of days for a reply: The investigation results should be replied within 30 days

Appeal: In case of any objection, the complainant can make an appeal within 10 days after receiving the reply.

Closure: The case is closed if there is no objection.

## Complaint channels

### - Sexual harassment complaint procedure

Apacer has formulated the “Measures of Complaint and Punishment for Sexual Harassment at Workplace” and “Measures of the Prevention, Complaint, and Investigation of Sexual Harassment”. They are applicable to all colleagues of the Company (employees, temporary workers, technicians, and interns) for making complaints about suffering from sexual harassment by anyone (including non-employees of the Company) in order to prohibit actions and behavior of sexual harassment in any form, so as to guarantee our colleagues and the public's rights and benefits. The reception channel of the complaint is the Human Resources & Administration Management Department. The complainant may request not to expose his or her identity.

In terms of the processing procedure, the reception window must convene a “Sexual Harassment Complaint Handling Team” based on the needs of the incident. The team, which must be composed of representatives of labor and management, will process and investigate the sexual harassment incident. There will be 1 permanent member (the head of Human Resources) to record the meetings. In each meeting, a unit head/supervisor at or above the department level (inclusive) from non-related units may be invited to serve as the meeting chairperson on a case-by-case basis. There must be at least 3 members (best in odd number). The female representatives must not be less than 1/2, while the male representatives must be more than 1/3. If necessary, experts and scholars from the “Sexual Harassment Investigation Professionals Tank” (website: <https://expert.mohw.gov.tw/>) set by the Ministry of Health and Welfare may be invited to join the meetings.

After accepting the complaint, the Human Resources and Administration Management Department must start the investigation within 7 days from the following day after the complaint is submitted or transferred. The investigation must be completed within 2 months. If necessary, it can be extended for 1 more month. The extension can only be made once and shall be notified to the involved parties. By the end of 2022, there was no complaint of sexual harassment.

### Complaint procedures

#### 01 Application

Applicability: All employees of the Company (including employees, temporary workers, interns, etc.) or the public complaining any employee of the Company  
Requisite for complaint: The complainant may request to keep his or her identity confidential

#### 02 Acceptance

Reception channel: Human Resources & Administration Management Department  
Conditions for acceptance: Formal documentation with name and specific factual content

#### 03 Investigation

Days of investigation: The investigation must begin within 7 days and the investigation report must be provided within 30 days.  
Meeting convention: A “Sexual Harassment Complaint Handling Team” is convened to examine the content of the investigation report (the team must be composed by both labor and management parties, with at least 3 members (best in odd number) and at least half of the members are female. If necessary, external experts and professionals may be invited).

#### 04 Judgement

Approval: Based on the resolution reached by the “Sexual Harassment Complaint Handling Team”

#### 05 Reply

Number of days for a reply: The investigation results must be replied within 60 days.  
Appeal: In case of objection, the complainant can make an appeal within 20 days after receiving the reply.  
Closure: If there is no objection, the case shall be closed (cases where Sexual Harassment Prevention Act is applicable, the complaint must be submitted to the local government within 30 days after receiving the reply).

Major  
Topic  
4.4

# Talent Cultivation and remuneration system

## ● Apacer's talent development strategy

"Introduce excellent talents to accumulate future technologies, establishing a reliable employer brand" is Apacer's talent development strategy. By having the double-track talent development system, we promote the talent supply chain mechanism and the setup of Apacer College with the double-track talent development structure based on job competencies. Depending on the training structure and system, we provide an education course map. By keeping the level of industry-leading salary and remuneration as well as the operations of the A+ EAPs Employee Assistance Plan, we build a friendly and healthy workplace, achieving Apacer's talent development strategy.

### Input

#### Labor recruitment cost:

-NT\$2,041,623

#### Talent development and cultivation cost:

-NT\$1,470,980

#### Employee salary and welfare:

-NT\$679,100,165

### Apacer's talent development strategy

#### Introduce excellent talents to accumulate future technologies ; establishing a reliable employer brand

- Establish double-track talent development system
- A double-track talent development structure based on job competencies
- Promote talent supply chain mechanism
- Establish Apacer College
- Leading salary level in the industry
- Keep A+ EAPs Employee Assistance Plan
- Build a friendly and healthy workplace

### Output

#### Human capital benefits

- Survey on external remuneration in percentile: Overall P50↑
- Double-track talent promotion rate: 64%
- Double-track talent retention rate: 98%
- Annual employee turnover rate: 1.7%

#### Socioeconomics benefits

Relative contribution of employee salary and benefits at Socioeconomics level:  
NT\$679,100,165

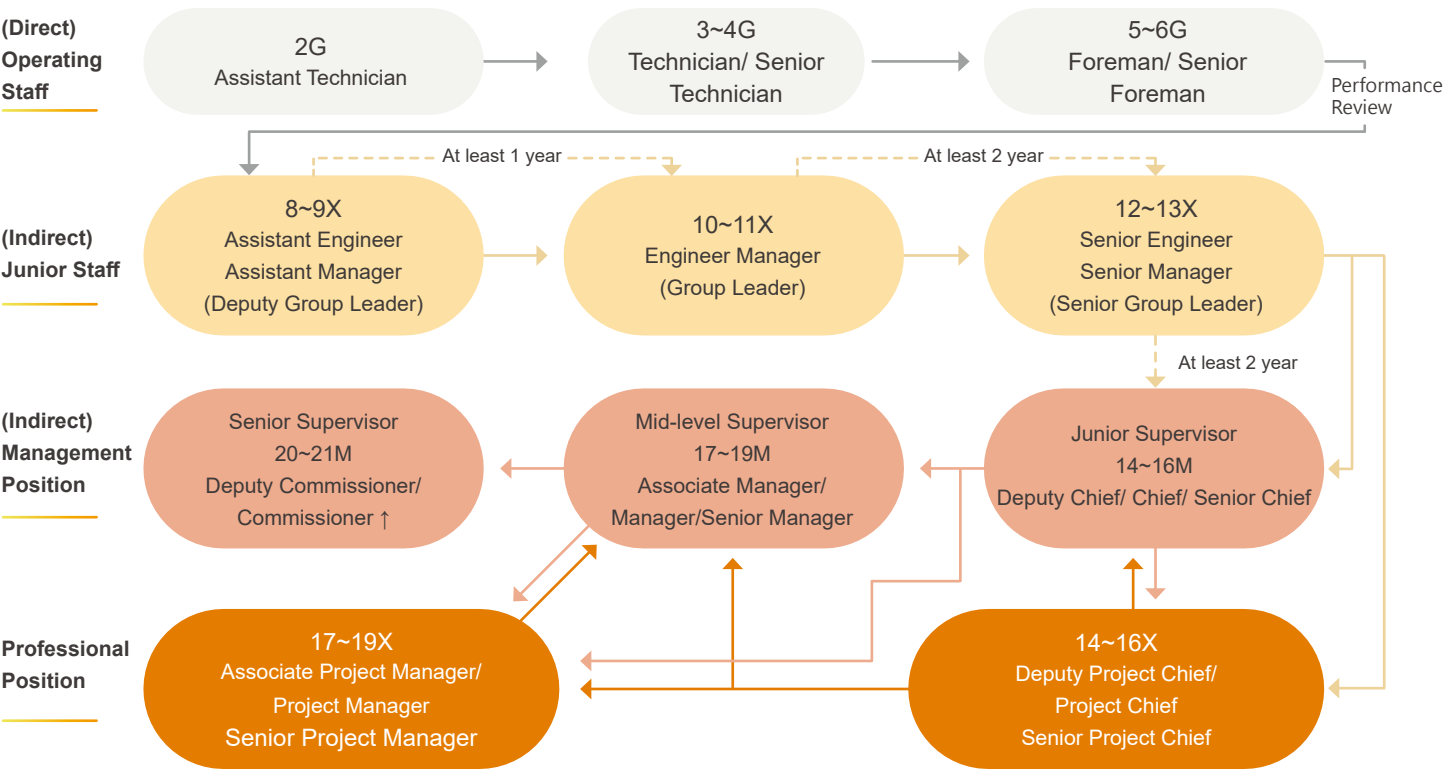


Double-track talent development system

Since the establishment of the double-track talent development system in 2020, Apacer has been conducting a re-grading of the personnel based on education, experiences, job description, job competence evaluation, and performance assessment results, solving the original 60% of promotion barriers and blockage. In 2022, based on the Measures of Double-Track Talent Development and Management, a total of 65 colleagues got promotion (19 management positions and 46 professional positions), accounting for 13% of the total staff. The number of promotions after the implementation of the new system was about 1.2 times more than that of 2021.

DL : 3-step and 5-level promotion structure

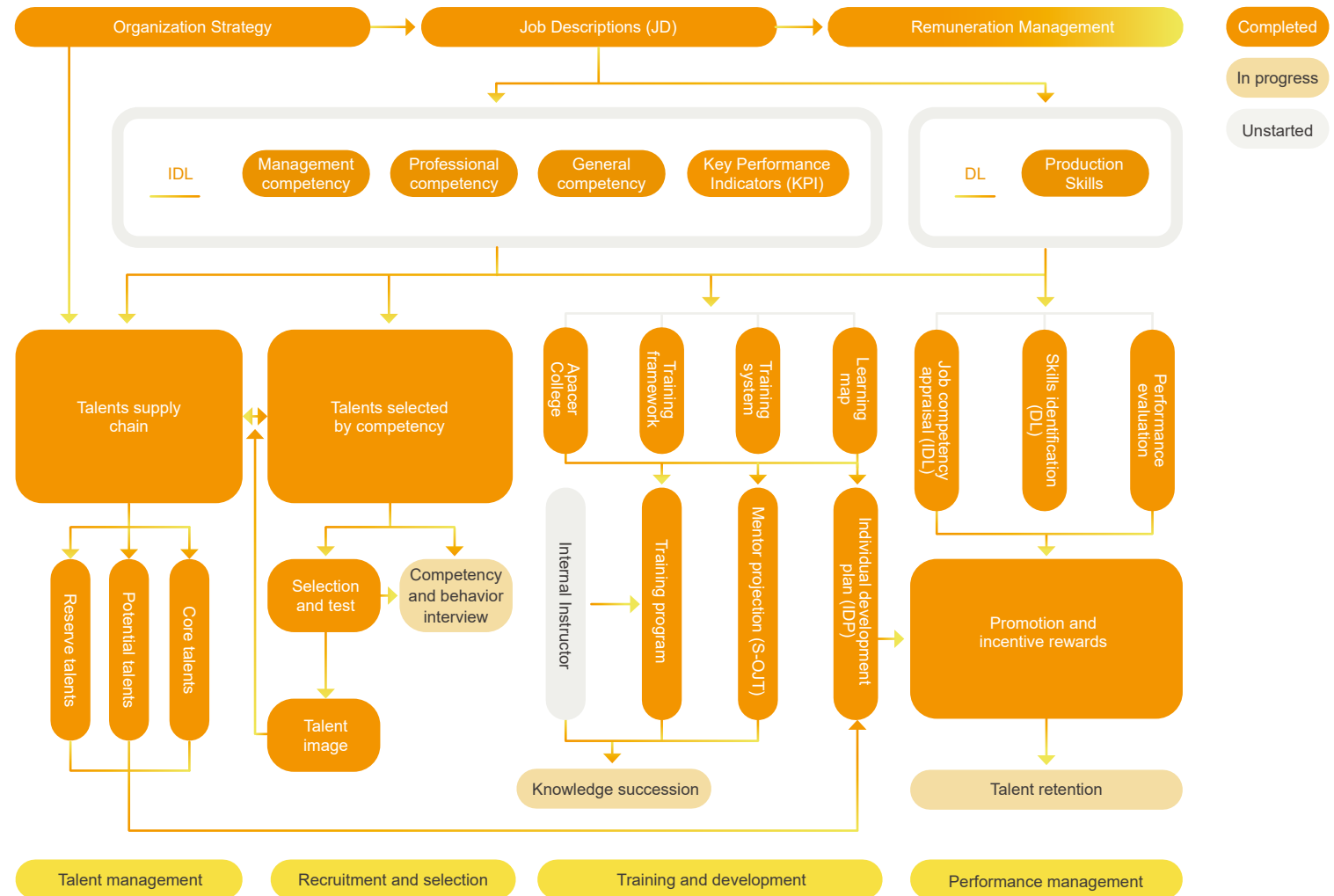
IDL : 6-step and 14-level of promotion structure



Job Category Remark: G: Representing on-site Operational Positions  
X: Representing the collective name of functional duties (A~Y)  
M: Representing management positions

## Double-track talent development system based on job competencies

To set up a double-track talent system suitable for management positions and professional career development, Apacer has projected a talent development structure based on job competencies, from job description, management competencies distinction, and professional and general competencies, to a series of talent management development structure with remuneration management, talent management, recruitment and selection, training development, and performance management.



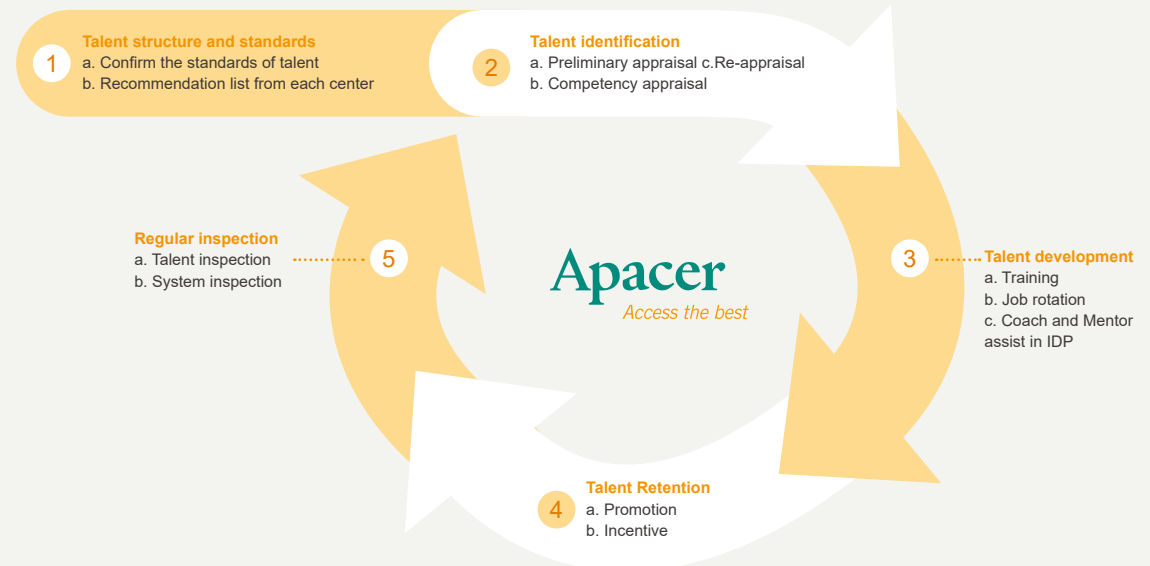
## Talent supply chain mechanism

To continuously supply and cultivate excellent talents and to respond to market competitions and various operation challenges, Apacer has constructed a "talent supply chain" mechanism, starting from the discovery of reserve talents and cultivation of potential talents to making them become the company's long-term core talents. The Human Resources and Administration Management Department is in charge of organizing, planning, and launching the talent supply chain mechanism. The departmental management shall recommend talents at all levels. The center management shall conduct the preliminary evaluation and the Executives Management Committee composed by the high management shall make the final approval.

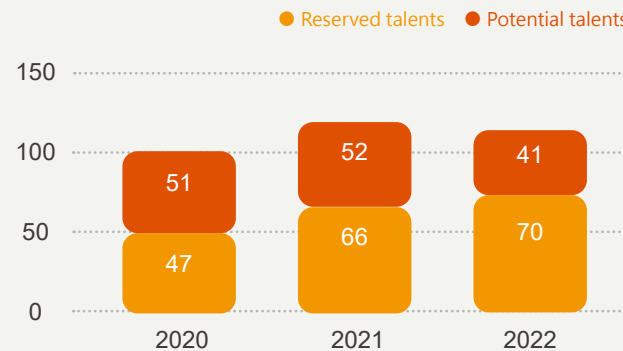
After having the list of talents at all levels confirmed, the Human Resources and Administration Management Department will provide Coaches or Mentors on the needs of the talents. After the Coach assists the talent in the setting of a personal development plan, the Human Resources and Administration Management Department will schedule the courses tailored to the talents' needs and also based on the job competence inventory. The Executive Management Committee shall also make an assessment of the talent rotation mechanism depending on the operation strategies and provide the corresponding incentive rewards based on the talent development status.

In 2022, Apacer had a total of 111 members in the talent supply chain. Among them, 70 were in Legacy Class, and 41 were potential talents. After the training, 47% of them got promotion, 4% had a development rotation, and the retention rate reached 97%. Compared to last year's execution, the overall situation this year made progress stably.

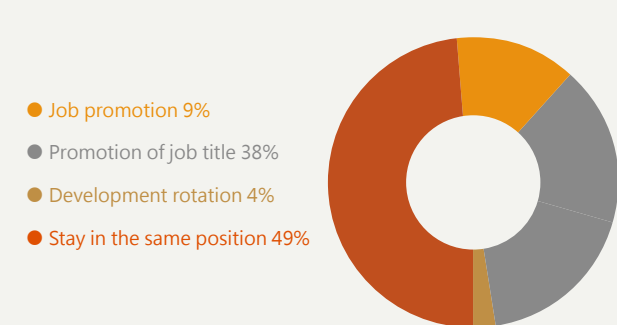
### Talent supply chain mechanism



### Number of talents in the supply chain



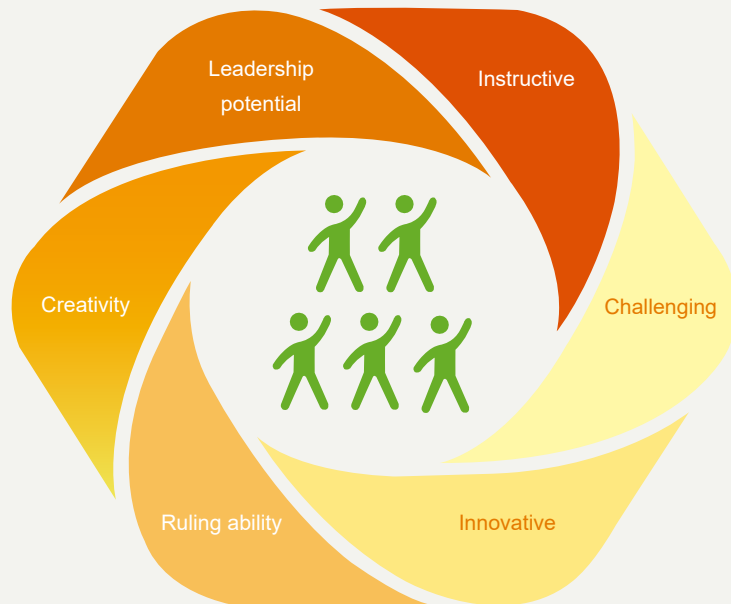
### Talent utilization



## Talent profile

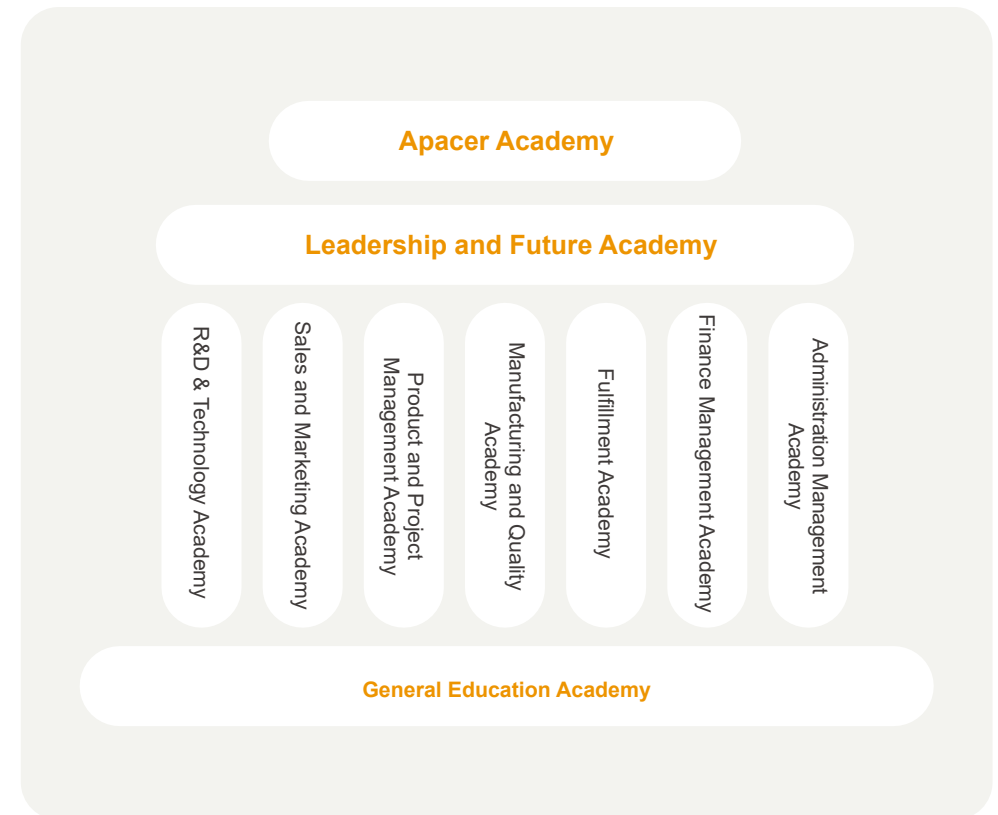
To cultivate and fortify the structure of the talent supply chain members, Apacer, starting in 2021, used the big data generated via a selection tool - the aptitude test - to find out the key characteristics of the necessary talents and outlined their profiles. In this way, we can make comparisons with the members of the talent supply chain year by year, ensuring to meet the development needs of the company.

The overall compliance of the talent profile in 2022 was 63% (reserve talents 63% and potential talents 63%). It is expected to increase to 70% in 2023.



## Apacer College

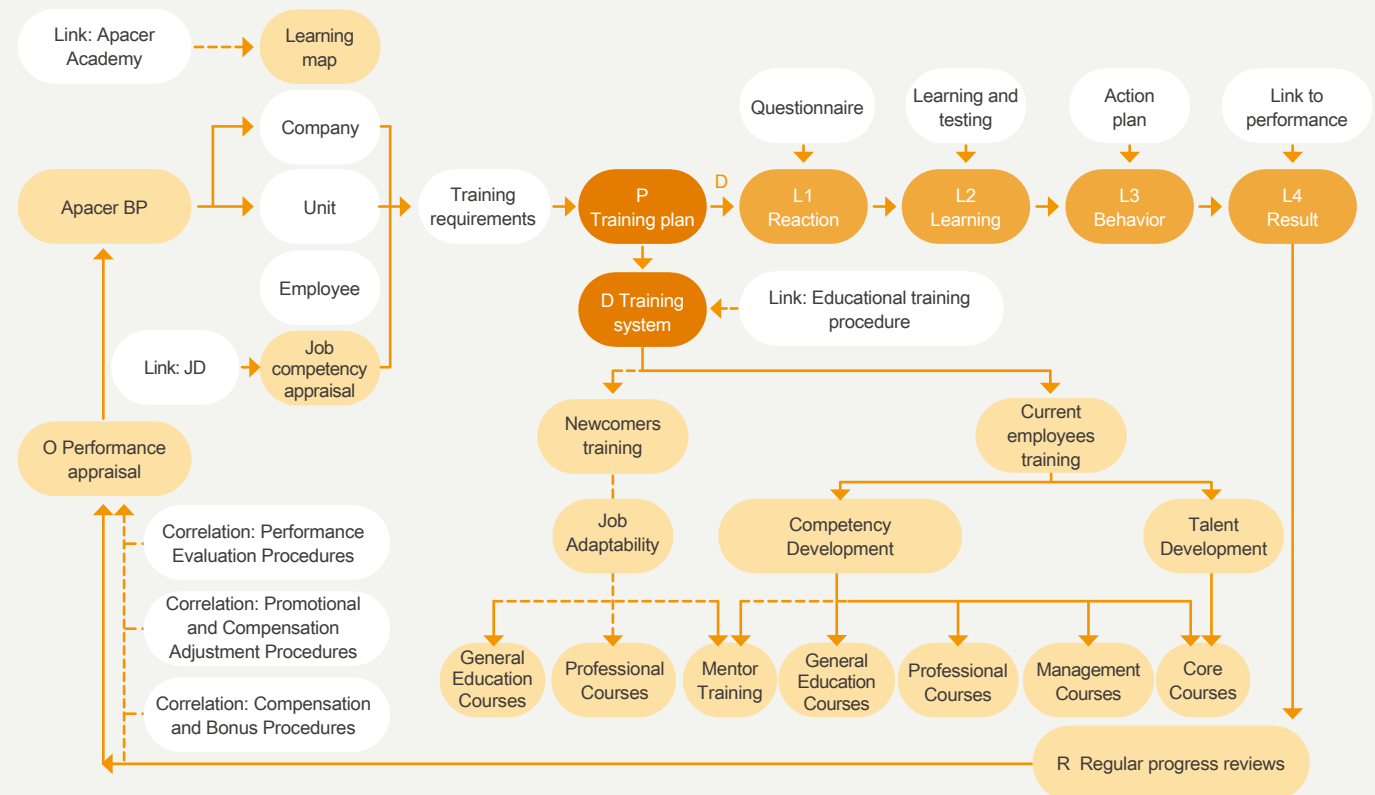
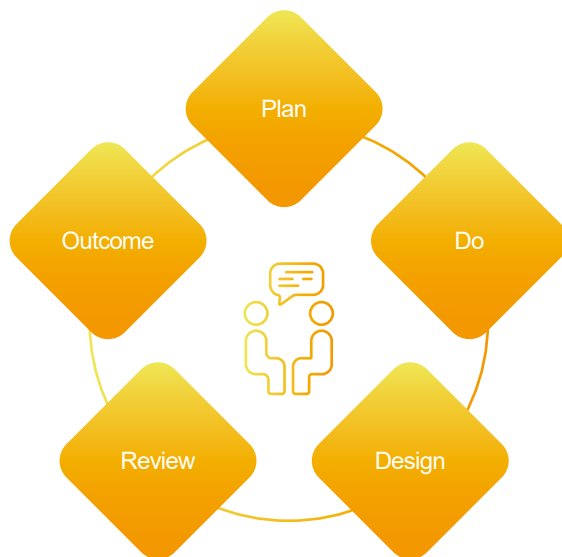
Apacer completed the establishment of Apacer College in 2021, having the General Manager serving as the headmaster. Based on job competencies, it is divided into 9 colleges depending on the functions and professionalism. The plan is to include a learning development path and training for all colleagues, hoping to provide newcomers with a transparent learning development structure and to increase the functional availability rate and competitiveness of colleagues via the different training and courses of the different colleges.



## ● Educational training

### Educational training structure

Apacer uses the TTQS talent development quality management as the training management loop: Plan, Design, Do, Review, and Outcome. It consists of job competence gap inventory and training need survey, execution of annual training plan and course design, monthly meeting review, final presentations of the training, and the linkage of performance with rewards, which is a complete and systematic human resources training structure.



## Educational training and courses

Apacer knows that our colleagues are the sources of business growth and competitiveness. We offer diversified educational trainings and courses that can enhance their professional abilities that allow them to face the ever-changing challenges outside. To plan the courses that fit their needs, the Human Resources and Administration Management Department conducted interviews with the heads and colleagues of different units as well as after-class surveys on their satisfaction. During the research period of the annual training, the heads of different units can propose training needs that are in line with the learning map of Apacer College. This could help the colleagues to achieve the company's business development goals and allow the courses to be in line with the job competence needs. In addition to external lectures, we also invite experienced colleagues to be our internal lecturers so that we can pass down the experiences.

In 2022, Apacer introduced an online-offline mixed training for the management courses. Instead of unit-learning, the training has been converted into a journey program. Through the training resources of the different functions integrated in Apacer College, the operation colleagues were set as the trainees. Thus, compared to 2021, the overall training hours were increased by 1016 man-hours with 8669 persons. The training cost was also higher compared to the cost spent in 2021.



### Newcomers' training (Including occupational safety and health)

Training key: Corporate culture (vision, mission and value), operation directions, RBA & integrity management, environmental safety and health policies and management system, system protocols, system operations, occupational safety and health for newcomers, etc., hoping to assist the newcomers to learn the company's core values and workplace as soon as possible.

### General training (including regulation trainings)

The key of the training is to equip employees with general knowledge and professional trainings, including presentation skills, problem analysis and solution, professional trainings in different job competencies, relevant regulatory trainings, and occupational safety and health and fire protection trainings, in order to meet the needs for availability readiness and regulatory requirements.

### Talent training (Including management training)

The key of the training is the training for talent supply chain members and management at all levels. Using job competencies as the basis, we take actual and future development needs into consideration so that we can cultivate personnel with good and professional abilities in execution, planning, and management.

### RBA & integrity operation training (Including occupational safety and health)

The key of the training is compliance with RBA and integrity operation-related regulations. RBA includes the five major scopes of labor, health and safety, environment, ethics, and management system. The integrity system encompasses RBA ethics as well as integrity operation policies, integrity operation codes, and conduct guidelines.

### ESG training

Training key: Global business sustainability development trends, issues of concern in global business sustainability development, etc.

## Statistics on educational training in 2022

Course category	Number of employees	Total number of participants	Total man-hour	Total cost (NTD)
Newcomers' training (Including occupational safety and health)	505	165	456	\$1,472,280
General training (including regulation training)		2,796	5,550	
Talent training (including management training)		428	1,408	
External professional training		101	968	
RBA & integrity operation training (including occupational safety and health)		498	498	
ESG training		40	80	
<b>Total</b>		<b>3,972</b>	<b>8,669</b>	
<b>Average training cost per employee</b>				<b>\$2,916</b>

Note: The above data includes the information from the subsidiary UDInfo

## Average training hours for employees in 2022

Job category	Every employee Average training hour per year (female)	Every employee Average training hour per year (male)
Management personnel	18.2	21.1
Professional personnel	21.4	19.1
Sales personnel	17.7	33.2
Technician personnel	4.3	8.0
<b>Total</b>	<b>15.4</b>	<b>20.5</b>
<b>Percentage</b>	<b>43%</b>	<b>57%</b>

Note 1: In terms of technicians' training, it's based on the on-site technical skills that meet the needs of the production lines, so the training hours were shorter.

Note 2: The above data includes the information from the subsidiary UDInfo.

## Educational training achievements

To ensure training course effectiveness and quality, Apacer adopted the TTQS training loop in the planning, design, execution, assessment, and review in all educational courses. The Kirkpatrick's Four-Level Training Evaluation Model was also applied to assess the training performance.

Four-Level	Assessment method/basis	Results
L1 Reaction Response assessment	Survey on the level of satisfaction of the course	94%
L2 Learning Learning assessment	Practices, after-class feedback, after-class homework, test, etc.	Execution rate of 100%
L3 Behavior Behavioral assessment	Job competence evaluation, test before and after class, action plans, achievement presentation, etc.	13 classes
L4 Results Result assessment	Quality enhancement, reduction in customer complaints, effective maintenance of the system, enhancement in employees' commitment, etc.	2 classes

In 2022, Apacer opted the four major training axes to develop the training courses, which were “brand and core value technology layout”, “fortification of Apacer DNA and job competence availability rate”, “fortification of customer relationship management skills” and “fortification of product/cost/quality/value chain awareness”. In each of the training axes, a concrete achievement was generated. The execution rate of the overall course was 99%.

### Focus on the deployment of core energy and future technology

- In 2022, a total of 186 patents have been certified and effectively maintained.

### Fortification of Apacer DNA and job competence availability rate

- Organizing job competence trainings for general colleagues, assisting them in the enhancement of job competence availability rate:
  - Efficiency availability rate +13%
  - Continuous tracking availability rate +7%
  - Result-oriented availability rate +4%

### Establishing the internal knowledge inheritance foundation

- Organizing talent trainings to reserve the future management talents
  - End-of-term Presentation by Legacy Class: 1 team with outstanding performance; 5 teams met the requirements.
  - 79% of the trainees had presentation skills enhanced; 21% of them were average; 95% of supervisors responded to have achieved the learning goal.
  - Potential talent end-of-term presentation: 1 team with outstanding performance; 4 teams met the requirements

### Construction of digital transformation basis

- Generation of Persona & Customer Journey Map which is applied to the design of the official website.

## ● Performance management

Every year, Apacer conducts a regular skill evaluation for the direct personnel and job competence evaluation for the indirect personnel. The results of both evaluations are taken as reference for the promotion system, which can effectively be connected with the future development plan for our colleagues. We also have regular performance assessments in which the design is divided into direct personnel and indirect personnel as the item of performance assessment. The proportion of the performance assessment is also divided into management position and non-management position. The results of the assessment are also connected to the rewards and compensations as well as the promotion system. The overall performance management system can work as an incentive for colleagues and be integrated with their future development plans.

### Skill evaluation/job competence evaluation

#### - Direct personnel

To ensure that all operators comply with the operating standard procedures during production in order to avoid quality instability caused by human factors and to cultivate multi-skilled workers so that manpower usage can be effectively adjusted.

- Frequency of skill evaluation: 1/year
- The execution rate of the direct personnel's skill evaluation in 2022 was 100%.
- Achievement rate of skill requirement was 100%.

#### - Indirect personnel

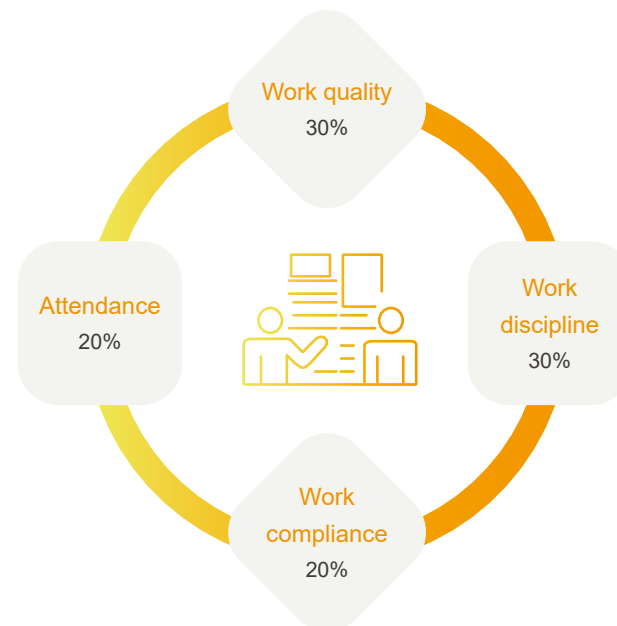
The job competence evaluation items are based on the job description manuals, which can be divided into three major categories: management job competencies, professional job competencies, and general job competencies. If there is a job competence gap seen in the evaluation results, they can refer to the relevant courses in the learning map in order to make up the competence and enhance the various skills.

- Frequency of job competence evaluation: 1/year
- The execution rate of the indirect personnel's job competence evaluation in 2022 was 100%.
- The overall job competence availability rate was increased by about 1% compared to that of the same period last year.

### Performance assessment

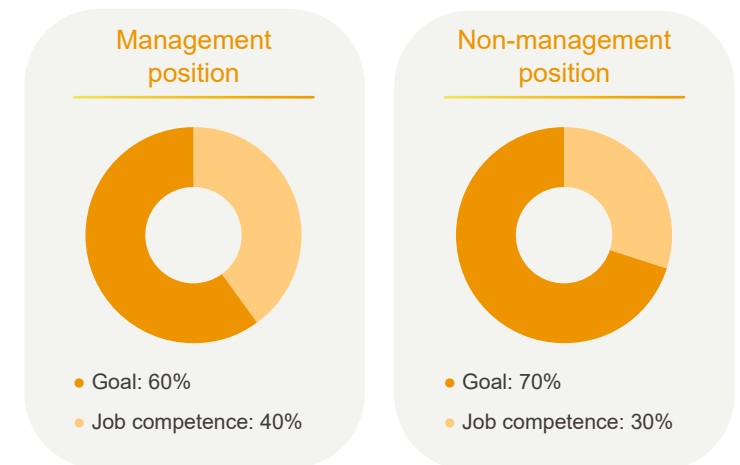
#### - Direct personnel

- Frequency of performance assessment
- Performance assessment items: Work quality, work discipline, work compliance, and attendance.
- Performance bonus: Based on the results of the performance assessment, the Human Resources & Administration Management Department will timely provide performance bonus.



#### - Indirect personnel

- Frequency of performance assessment: A performance assessment is conducted regularly every half a year.
- Items of performance assessment:
  - Assessment goal: The unit head shall discuss the goals with the colleagues and set the KPIs that are in line with the company's annual strategies and the unit's annual plans by January every year.
  - Job competence assessment: The Human Resources & Administration Management Department shall formulate the assessments based on the core abilities of each of the job competence development.
- Performance bonus: Based on the results of the performance assessment, the Human Resources & Administration Management Department will provide performance bonus and conduct regular reviews on the colleagues' performance and their personal development plan status.





## ● Remuneration management

### Better than the Labor Standards Act



- Flexible working hours (except for the production lines)
- 3 meals provided every day (and additional meal allowance),  
massage services every week, annual leaves better than those as  
stipulated in regulations, health checkup every year...
- Support and encourage birth rate! Annual leaves and birth  
incentives better than regulations

In 2011, Apacer set up the Remuneration Committee which has been fully composed by independent directors since 2018. It is responsible for the regular review of the policies, systems, standards, and structures of the performance and compensation of the directors and managers as well as the performance of the operation teams and employees' compensation policies. For the operations of Apacer Functional Committee, please refer to: 1.2 Integrity operations and corporate governance

For many years, Apacer has adopted the remuneration survey reports provided by more than two third-party professional consultancy companies, which are used as the reference of the salary average among peers, ensuring to achieve more than the P50 percentile in every position compared to the peer-companies and to retain excellent professionals. In addition, based on the annual operation outcome, Apacer also allocates surplus to our colleagues so that we can attract outstanding talents to contribute their expertise and be devoted to long-term commitments. We also have a variety of performance bonuses, patent bonuses, and other incentives, encouraging our staff to pursue extraordinariness at both work and personal levels.

#### Welfare

- 3 meals provided every day (and additional meal allowance)
- Massage services every week
- Annual leaves better than those as stipulated in regulations
- Health checkup every year
- Group insurance for employee's dependents
- Birth incentives
- Vouches for the three festivals / birthday
- Subsidies for travel/birth/wedding/funeral
- A\* EAPs Employee Assistance Plan

#### Remuneration

- P75 ↑ percentile than that of the market
- P50 ↑ percentile than those of the peers

#### Bonus

- Bonuses/voucher for the three festivals
- Patent bonus
- Performance bonus
- Employee compensation

#### Allowance

- Supervisory differential pay
- Meal allowance
- Rotation allowance
- Overseas allowance
- Relocation allowance for departure/return to Taiwan
- Settlement allowance abroad/home

## Overall salary ratio in 2022

Job category	Female	Male
Management personnel	1.0	1.1
Sales personnel	1.0	1.0
Professional personnel	1.0	1.0
Technician personnel	1.0	1.1

Note 1: Apacer uses fair and just standards, such as education background, experiences, job category, professional certificates and licenses, and special expertise, for approving an employee's job position level and salary.

Note 2: The above data include the information from the subsidiary UDInfo.

## Ratio of entry-level personnel and local minimum wage ratio

Gender	Local minimum wage	Apacer wage	Female-male wage ratio
Female	1.0	1.2	1:1.1
Male	1.0	1.3	

Note 1: The minimum wage standard in Taiwan is \$25250 monthly wage, which is effective from January 1st, 2022.

Note 2: The entry-level personnel in Apacer are the technicians.

Note 3: The above data include the information from the subsidiary UDInfo.

## Historical salary overview of the personnel without holding supervisory positions

Item	2019	2020	2021	2022
Number of personnel without holding supervisory positions	482	476	438	445
Average annual salary of the personnel without holding supervisory positions (NT)	\$909,000	\$869,000	\$1,084,000	\$1,178,000
Median annual salary of the personnel without holding supervisory positions (NT)	\$742,000	\$729,000	\$959,000	\$1,014,000

Note 1: The term "personnel" refers to the number of employees in Taiwan after excluding the managers and personnel working part-time and who are employed with payment for less than six months; the calculation is based on the average number of personnel. The total of the salary consists of an accrual basis, including: base salary, various allowances, overtime payment, various bonuses, and employee remuneration, excluding the estimated amount of share-based benefits.

Note 2: In compliance with the stock exchange regulations, the salary overview reveals only the part that belongs to the listed company Apacer Technology.

Note 3: The 2022 data does not include the information from the subsidiary UDInfo.

## Annual total compensation ratio

Ratio of maximum salary to the median of employee salary (Note 1)	Annual salary change ratio (Note 2)
59.3%	99.8%

Calculated based on self-definition with GRI as reference

Note 1: Ratio of maximum salary to median employee salary= Ratio of the median of the annual salary of top management / median of the total salary of all other employees (excluding top management).

Note 2: Annual total salary change ratio= The ratio of the percentage of the annual total salary change of the top management / media of percentage of the total salary change of all other employees (excluding the top management)

## Salary and welfare expenses in 2022

Category	Item	Amount (NT)	Number of beneficiaries
Remuneration	Employee salary	\$385,358,741	6,095
	Bonus for the three festivals	\$49,257,103	1,061
Bonus	Performance bonus	\$119,935,540	528
	Employee compensation	\$67,572,800	458
Welfare_Company	Labor and health insurance	\$38,443,231	6,095
	Group insurance	\$1,759,423	6,095
	Employee health check-ups	\$393,000	468
	Maternity benefits	\$279,000	12
	Massage	\$21,980	358
	Spring feast activity	\$4,584,952	497
	Family activities	\$1,814,913	341
	Pension plan	\$3,545,459	413
	Wedding and funeral subsidies	\$88,800	25
	Subsidies for inter-departmental gatherings	\$416,621	503
	Subsidies for books, newspapers and magazines	\$26,170	471
	Subsidies for new year activities	\$2,784,869	1,415
Welfare_Welfare Committee	Subsidies for association	\$85,000	118
	Travel subsidies	\$2,733,013	408
Total		\$679,100,615	25,361

Note: The 2022 data includes the information from UDInfo.

## Pension system

Apacer has formulated the pension system in accordance with the Labor Standards Act, which explicitly expresses pension allocation, conditions for employee retirement, and pension payment. In addition, based on the laws, a "Pension Reserve Supervisory Committee" was set up, and every year, in the name of the committee, the pension reserve which is an amount assessed by a third-party actuary is deposited in the statutory financial institution (the actuarial assessment report consists of a report from the previous year generated in January every year). In response to the new retirement system launched in July 2005, for employees who choose the new system, 6% of the labor pension (the employee can also voluntarily contribute within the 6% range) is allocated and deposited in the exclusive personal pension account in the Bureau of Labor Insurance; for employees who choose the old system, the pension reserve is allocated in accordance with the old measure. To express Apacer's gratitude towards all senior colleagues who have made contributions to the company, the preferential pension measures was planned in 2008 and approved by the competent authority in order to guarantee the life of retirement of every employee.

## Chapter V

# Partners of the Livable Homeland

### Vision

Based on the concept of "Cozy homeland, Apacer stands with you", Apacer is deeply engaged with the local places. Our colleagues have responded to our sustainability solutions with concrete actions that meet local needs; they have also extended the actions to the neighboring communities who have been invited to be together with our organization to create a sustainable and symbiotic environment as well as a cozy happy homeland.

### Policies and Commitments

Apacer factory-office-style headquarter is located in Tucheng District, New Taipei City. To give back to the society's needs, we continue promoting local care solutions and set up a long-term partnership with the local groups. It is hoped that through friendly actions towards the communities and environments, our employees can be encouraged to join in and expand the social influences.

## 5.1

# Local Influence

Since 2015, Apacer has been promoting the “Green Cultivation Plan”, inviting our internal employees to respond to energy-saving, carbon reduction, and veggie lifestyle actions. Also, during 2016 - 2019, we also launched the “one-day volunteer” activities so that our colleagues can personally join the mountain-cleaning, not only to keep the eco-environment in Tucheng but also expand the local cultivation force and scale. However, during recent years, due to the impact of the pandemic, we suspended all external activities due to health considerations. Currently, we adjusted it into the project of “Apacer stands with you”. Through diversified methods, we provide assistances to the local communities or charity groups.

## Green Cultivation Plan: The accumulated number of participants is 586.

2015 Empowerment	Taiwan Energy-Saving Patrol conducts on-site diagnosis for the carbon reduction plant-based diets month.
	A total of five lectures were held, and 218 employees joined. Nearly 60% of the employees agreed that the activity “enhances one’s motivation to choose plant-based diets.”
2016 Action	Green family day
	A total of 48 employees and their family members participated, and all interviewed participants agreed that the activity “inspired more energy-saving and environmental-friendly daily habits”
2017 Deep participation	Apacer One-Day Volunteer
	A total of 34 employees and their family members participated, and all interviewed participants agreed that they are “willing to join more enterprise volunteer activities in the future”
2018 Innovative planning	Apacer One-Day Volunteer
	A total of 42 employees and their family members participated, and all those who participated expressed 100% satisfaction.
2019 Continuous devotion	Carbon Reduction Plant-Based Diet Day
	An energy soup and plant-based diets workshop was held, and a total of 60 employees participated.
2020 Expanding participation	Apacer One-Day Volunteer
	A total of 37 employees and family members participated. The theme of the year was to remove alien species, with an ecological knowledge tour to see the fireflies. The Abbot of Shanshi Temple strongly supported Apacer to hold similar activities continuously to safeguard ecological balance.
2020 Expanding participation	Apacer One-Day Volunteer
	A total of 42 employees and their family members participated, and the satisfaction with the ecological docent of the one-day volunteer activity reached 97.6%. This also marked the third consecutive year Apacer has been cooperating with the New Taipei City Tucheng Landscape Protection Association. Innovative planning was implemented, and an exhibition was organized on the first floor of Apacer HQ, combining tung flowers and fireflies as the main theme, which gained outstanding positive feedback

## Apacer stands with you

2021 Local community caring programs	Family DIY Plant-based Spring Roll
	Apacer collaborated with Jingwen’s Local Xidian-Wulai Industrial Social Responsibility Project hosted by Jingwen University of Science and Technology to promote the concept of natural vegetables. A total of 60 employees participated.
2022 Community caring programs	Happy Plant-based Diet
	- 40 employees experienced the joy of plant-based diets
2022 Community caring programs	Humanitarian aid
	- 577 invoices were donated   - One batch of secondhand toys was donated   - Donated electronics to three social welfare organizations
2022 Community caring programs	Environmental protection action
	- Apacer covered the cost of raising 20 organic coffee trees with a total of NTD\$60,000

### Annual vegetarian activities

Due to the extensive impact of the pandemic in 2022, this activity was suspended this year in consideration of the employees' health conditions and operation risks. This activity will be re-evaluated once the pandemic is relieved.

## 5.2

# Apacer Stands with You - Local care

Apacer upholds the brand core value of “delivering on our promise, constant improvement, mutually beneficial” and exhibits the spirit of “Becoming Better Partners”. Through local NGOs, the project “Apacer Stands with You” was launched with the hope of expanding our influence with care at different levels.

## Apacer Stands with You - Receipt raising

In 2021, starting with the locality of Apacer headquarter, Tucheng District in New Taipei City, we initiated our collaboration with Huashan Welfare Social Foundation - Tucheng Station. After contacting with the station chief, we began our actions with receipt raising. Based on the long-term project, we placed a receipt-raising box in the lobby on the first floor of the company so that our colleagues could voluntarily donate their receipts. The winning prizes were used by the foundation on the caring works. As of November 2022, a total of 577 receipts were donated to Tucheng Station.

## Object donation

Through the collaboration with Huashan Welfare Social Foundation, Apacer had a further comprehension regarding the works of the non-profit organization at the operation level. Thus, in 2022, we planned a series of donations.

- Collecting second-hand toys: We invited colleagues to donate the toys (excluding the items that cannot be donated, such as plush toys, textbooks, etc.) that have been idled at home. In just one week, we collected toy cars, Lego, learning materials, and others, which were all donated to the New Taipei City Toy Bank.
- Donation of electronic products: Apacer donated electronic products that worth more than NT 150000, including pen drives, cables, SSDs, etc. to three charity organizations so that they could use them in different activities.
  - Minshin Children Development Center - Donation of pen drives as gifts for the children (247 pcs).
  - Love Life Cultural & Educational Foundation - Donation of pen drives as gifts for the children (203 pcs).
  - Huashan Welfare Social Foundation - Donation of pen drives, SSDs, peripherals, and other products for their charity sales. All income from the charity sales were given for the use of the foundation.



The toys were taken to the Toy Bank. One little toy car was taken directly to the event.



Our colleagues responded very enthusiastically and donated many toys in good state.



Love Life Cultural & Educational Foundation - Pen drives were provided for educational and learning purposes.



Minshin Children Development Center - Pen drives were provided to the children who joined the event.



Love Life Cultural & Educational Foundation - Pen drives were provided so that the children could learn how to use technological products since little.



Minshin Children Development Center - Parents and children joined the event enthusiastically



Huashan Welfare Social Foundation - Various electronic products were donated for their charity sales.



Huashan Welfare Social Foundation - The public acted with enthusiasm and kindness in the charity fair.



## Exchanges of second-hand objects

To raise our colleagues' awareness for not wasting, we organized a second-hand object exchange in the company, encouraging the employees to bring the idled objects at home and give them to people who need them. We collected a total of 45 objects, including hair dryer, oven, different bags, baby products, etc., which were all claimed in two days. In view of the purpose and effectiveness of the activities, we plan to continue them in 2023.

## Raising of Chinese New Year meal

We organized the first raising of Chinese New Year meal in Apacer in 2021 which was well responded by our colleagues, raising a total of 168 meals. Upholding our spirit of local care, we continued this event this year, letting our employees to donate by themselves.

## Adoption of coffee trees

In 2022, for the first time, Apacer worked together with Yunlin Gufeng Coffee Manor in the project of coffee tree adoption, adopting a total of 20 trees with a cost of \$60,000. Gufeng Coffee is located at an altitude of 1,300 meters where the climate is suitable for coffee cultivation. The owner Liu Yen-he uses organic fertilizer plus friendly cultivation method and management. The harvested beans have been highly appraised several times in the domestic bean evaluation in Yunlin County. The adopted coffee beans were handed to Corporation Changhua County Joyce-Polio Care Association's sheltered factory for grinding and packaging. The coffee in filter bags was gifted as one of souvenirs for Apacer's 25th anniversary for the clients, partners, and media, a way to expand our influences in the local care.



The coffee tree adoption description card allowed the recipient to understand the story of the coffee in filter bags.

Package of coffee in filter bags



## Charity donation

Apacer believes that the value of the donation is not just limited to the amount but also a way to be connected to society and solve some needs. Every donation can maximize its value by conveying a positive influence.

By the end of 2022, Apacer donated approximately \$1.84 million to local communities, charities, art inheritance, and other related units.

### List of the historical donation amount

Cause of donation	Recipient unit	Project	Donation amount (NT)
Art inheritance	Tainan Municipal North District Daguang Elementary School	Donations were made three years consecutively for the operations of the art inheritance associations and the expenses needs for performances.	500,000
Track and field education	New Taipei Municipal Yulin Junior High School's track and field team	Sponsorships were provided five years consecutively for relocation training and replacement of equipment.	297,220
Local communities	Landscape Conservancy Association of Tucheng District, New Taipei City	The One-day Volunteer activities were entrusted to the association for organization four years consecutively.	32,000
Other	Chairty foundations, social welfare institutions, etc.	For social welfare communities in need, we assisted them to solve their problems and enhance their life quality via material and monetary donations.	1,009,358

Total amount of donation 1,838,578

# Appendix

## ● Appendix 1. GRI Standards Cross-reference Table

The following tables are compiled in reference to the GRI Standards: version 2021 and correspond to the contents of this report. As described in the external verification statement, relevant information has been verified to meet the requirements of GRI standards for the external verification list.

### GRI 2: General Disclosure 2021

	Disclosure Title	Description	Reference chapter / section	Remark
The organization and its reporting practices	2-1	Organization details	1.1 About Apacer	
	2-2	Entities included in the organization's sustainability reporting	About the Report	
	2-3	Reporting period, frequency and contact point	About the Report	
	2-4	Restatements of information	4.1 Overview of employees	In conformity with GRI 2-7 writing requirement, the reporting method for employee information was adjusted. A new subsidiary added in the disclosure scope - UD INFO CORP.
	2-5	External assurance	About the Report 1.2 Integrity management and corporate governance Appendix 4. Third-party Independent Assurance Statement	
Activities and workers	2-6	Activities, value chain and other business relationships	1.3 Diversified products and operational performance	
	2-7	Employees	4.1 Overview of employees	
	2-8	Non-employee workers	4.2 Employee safety and health	
Governance	2-9	Governance structure and composition	Development of sustainable strategies 1.1 About Apacer 1.2 Integrity management and corporate governance	
	2-10	Nomination and selection of the highest governance body	1.2 Integrity management and corporate governance	
	2-11	Chairman of the highest governance body	About the report 1.2 Integrity management and corporate governance	The Chairman of the Board is not the General Manager.
	2-12	Role of the highest governance body in overseeing the management of impacts	1.2 Integrity management and corporate governance	
	2-13	Delegation of responsibility for managing impacts	Materiality analysis	
	2-14	Role of the highest governance body in sustainability reporting	SSD (Sustainability Strategy Development) 1.2 Integrity management and corporate governance	
	2-15	Conflicts of interest	1.2 Integrity management and corporate governance	
	2-16	Communication of critical concerns	Apacer's major events in 2022	
	2-17	Collective knowledge of the highest governance body	1.2 Integrity management and corporate governance	

Statement of use

Apacer Technology Inc. has reported in accordance with the GRI Standards for the period from 2022/01/01 to 2022/12/31.

GRI 1 used

GRI1: Basic 2021

Applicable GRI Sector Standard(s):

Not applicable

### GRI 2: General Disclosure 2021

	Disclosure Title	Description	Reference chapter / section	Remark
Governance	2-18	Evaluation of the performance of the highest governance body	1.2 Integrity management and corporate governance	
	2-19	Remuneration policies	1.2 Integrity management and corporate governance	
	2-20	Process to determine remuneration	1.2 Integrity management and corporate governance	
	2-21	Annual total compensation ratio	4.4 Talent cultivation and remuneration system	Please refer to 4.4 "Remuneration System,"
	2-22	Statement about sustainable development strategies	Development of sustainable strategies	
	2-23	Policy commitments	<a href="#">Please refer to the website for further details regarding the commitments in various ESG fields</a> <a href="#">Please refer to the website for further details regarding supplier procurement policies</a>	
Strategy, Policies and Practices	2-24	Embedding policy commitments	Chapter I A Better Partner for Navigating Innovation Chapter II A Better Partner for Green Environment Chapter III A Better Partner for Making Progress Chapter IV A Better Partner for a Friendly and Healthy Workplace	
	2-25	Processes to mitigate negative impact	Chapter I A Better Partner for Navigating Innovation Chapter II A Better Partner for Green Environment Chapter III A Better Partner for Making Progress Chapter IV A Better Partner for a Friendly and Healthy Workplace	
	2-26	Mechanisms for seeking advice and raising concerns	1.2 Integrity management and corporate governance 3.2 Customer relationship management 4.3 Employee welfare and communication	
	2-27	Compliance with laws and regulations	-	Apacer has no relevant violations regarding any breach of laws and regulations.
Stakeholder engagement	2-28	Membership associations	1.4 R&D innovation	
	2-29	Approach to stakeholder engagement	Stakeholder engagement	
	2-30	Collective bargaining agreements	-	Not applicable Apacer has no collective bargaining agreements, but in the execution, opinions from trade unions and labor-management meetings are taken as reference.



Disclosure Title		Description	Reference chapter / section	Remark
Major Topic				
GRI 3: Major Topic 2021	3-1	Process to determine Major Topics	Significance analysis	
	3-2	List of Major Topics	Materiality analysis	
Major Topic: Corporate governance				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter I A Better Partner for Navigating Innovation	
Major Topic: Operational risk management				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter I A Better Partner for Navigating Innovation	
Major Topic: Information security				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter I A Better Partner for Navigating Innovation	
Major Topic: Economic performance				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter I A Better Partner for Navigating Innovation	
GRI 201 Economic performance	201-1	Direct economic value generated and distributed	1.3 Diversified products and operational performance	
	201-3	Defined benefit plan obligations and other retirement plans	4.4 Talent cultivation and remuneration system	

Disclosure Title		Description	Reference chapter / section	Remark
Major Topic: R&D Innovation				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter I A Better Partner for Navigating Innovation	
GRI 201 Economic performance	201-1	Direct economic value generated and distributed	1.3 Diversified products and operational performance	
	201-3	Defined benefit plan obligations and other retirement plans	4.4 Talent cultivation and remuneration system	
Major Topic: Environmental regulation compliance				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter II A Better Partner for Green Environment	
Major Topic: Energy management				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter II A Better Partner for Green Environment	
GRI 302 Energy	302-1	Energy consumption within the organization	2.2	
	302-3	Energy Intensity	2.2	
	302-4	Reduction of energy consumption	2.2	

Disclosure Title		Description	Reference chapter / section	Remark
Major Topic: GHG management				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter II A Better Partner for Green Environment	
GRI 305 Emission	305-1	Direct (Scope 1) GHG emissions	2.2	
	305-2	Indirect energy (scope 2) GHG emissions	2.2	
	305-3	Other indirect (scope 3) GHG emissions	2.2	
	305-4	Intensity of GHG emission	2.2	
	305-5	GHG emissions reduce	2.2	
Major Topic: Design of green products · Hazardous substance management				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter II A Better Partner for Green Environment	
GRI 301 Materials	301-1	Materials used by weight or volume	2.4 Green products	
	301-3	Reclaimed products and their packaging materials	2.4 Green products	
Major Topic: Sustainability management of supply chain				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter III A Better Partner for Making Progress	
GRI 308 Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	3.1 Sustainability management of supply chain	
GRI 414 Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	3.1 Sustainability management of supply chain	
	414-2	Negative social impacts in the supply chain and actions taken	3.1 Sustainability management of supply chain	

Disclosure Title		Description	Reference chapter / section	Remark
Major Topic: Hazardous substance management				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter III A Better Partner for Making Progress	
Major Topic: Customer relationship management				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter III A Better Partner for Making ProgressEnvironment	
GRI 416 Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	3.1 Sustainability management of supply chain	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	-	No relevant incident occurred.
GRI 418 Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	3.2 Customer relationship management	With the presence of information security control and management and internal audit, no relevant incident occurred.
Major Topic: Occupational health and safety				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter IV A Better Partner for a Friendly and Healthy Workplace	
GRI 403 Occupational Health and Safety	403-1	Occupational health and safety management system	4.2 Employee safety and health	
	403-2	Hazard identification, risk assessment, and incident investigation	4.2 Employee safety and health	
	403-3	Occupational health services	4.2 Employee safety and health	
	403-4	Worker participation, consultation, and communication on occupational health and safety	4.2 Employee safety and health	
	403-5	Worker training on occupational health and safety	4.2 Employee safety and health	
	403-6	Promotion of worker health	4.2 Employee safety and health 4.3 Employee welfare and communication	
	403-7	Prevention and mitigation of occupational health and safety impact directly caused by business relationships	3.1 Sustainability management of supply chain 4.2 Employee safety and health	
	403-8	Workers covered by an occupational health and safety management system	4.2 Employee safety and health	
	403-9	Work-related injuries	4.2 Employee safety and health	
	403-10	Work-related illness	4.2 Employee safety and health	

Disclosure Title		Description	Reference chapter / section	Remark
Major Topic: Talent attraction and retention				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter IV A Better Partner for a Friendly and Healthy Workplacechain	
	401-1	New employee hires and employee turnover	4.1 Overview of employees	
GRI 401 Employment	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	4.3 Employee welfare and communication	
	401-3	Parental leave	4.1 Overview of employees	For the statistical data, please refer to the table: Statistics on applications for parental leave without pay and reinstatement rate in Apacer headquarter and Taiwan subsidiaries
Major Topic; Talent cultivation				
GRI 3: Major Topic 2021	3-3	Management of Major Topics	Chapter IV A Better Partner for a Friendly and Healthy Workplacechain	
	404-1	Average hours of trainings per year per employee	4.4 Talent cultivation and remuneration system	
GRI 404 Training and Education	404-2	Programs for upgrading employee skills and transitional assistance programs	4.4 Talent cultivation and remuneration system	
	404-3	Percentage of employees receiving regular performance and career development reviews	4.4 Talent cultivation and remuneration system	

## ● Appendix 2: Comparison Table of the Sustainability Accounting Standards Board

Industry: Semiconductors

Index code		Disclosure index	Disclosure comparison				Reference section
Disclosure Title: Greenhouse Gas Emissions			2019	2020	2021	2022	
TC-SC-110a.1	(1) Gross global Scope 1 emissions (Unit: CO2e)		9.11	9.05	681.39	10.467	2.2 Climate change risk management
	(2) Total emissions from perfluorinated compounds (Unit: %)		0	0	0	0	
TC-SC-110a.2	Discussion of long-term and short-term strategies or plans to manage Scope 1 emissions, emission reduction targets, and an analysis of performance against those targets		Keep ensuring the operation efficiency of the equipment and evaluate the reduction goals and efficiency after completing the inventory of company-vehicles usage status				
Disclosure title: Energy management in manufacturing			2019	2020	2021	2022	
TC-SC-130a.1	(1) Total energy consumed (Unit: million joules)		14,355.742	14,805.954	13,496.389	13,223.138	2.2 Climate change risk management
	(2) Percentage grid electricity (Unit: %)		100%	100%	100%	100%	
	(3) Percentage renewable energy (Unit: %)		0	0	0	0	
Disclosure title: Water management			2019	2020	2021	2022	
TC-SC-140a.1	(1) Total water withdrawn (Unit: thousand cubic meters)		5.36	5.80	9.18	9.88	2.3 Waste and Water Resources Management
	(2) Percentage of water withdrawn in regions with high or extremely high baseline water stress		100%	100%	100%	100%	
	(3) Total water consumed (Unit: thousand cubic meters)stress		-	-	-	5.69	
	(4) Percentage of water consumed in regions with high or extremely high baseline water stress		NA	NA	NA	100%	
Disclosure title: Waste management			2019	2020	2021	2022	
TC-SC-150a.1	(1) Amount of hazardous waste from manufacturing (Unit: tons)		9.8	6.521	6.1995	6.2	2.3 Waste and Water Resources Management
	(2) Percentage recycled (Unit: %)		100	100	100	100	
Disclosure title: Materials Sourcing			2019	2020	2021	2022	
TC-SC-440a.1	Description of the efforts to assess, monitor, and reduce exposure of employees to human health hazards		The RoHS Directive has been fully introduced to manufacturing process and material management in conformity together with REACH and relevant regulations from the client side. Audits are conducted while component suppliers are also requested to provide Environmental Protection Commitment Statements, in order to ensure the compliance of the source materials required by regulations. Information control and management is established through Apacer Green Product Web System. The management policies and procurement standards are communicated in the Suppliers' Meetings in order to effectively manage the use of raw materials.				2.4 Green products

## ● Appendix 3 ESG Index Disclosure

Title	Index	Index description	Achievement data in 2022	Remarks
Environmental issues				
GHG emission	Direct (scope 1) GHG emissions	Tons of CO2	10.47	Data from company vehicle statistics
	Indirect energy (scope 2) GHG emissions	Tons of CO2	1,867.97	
	Other indirect (scope 3) GHG emissions	Tons of CO2	429.294	
	GHG emission intensity	Tons of CO2 / Turnover	0.21	
	Strategies, methods and goals of GHG management	Quantitative statement	Using 2021 as the base year, it is expected to reduce carbon emissions by 3% within 5 years through carbon reduction activities as well as the optimization of equipment and manufacturing processes.	
Energy management	Renewable energy utilization rate	Renewable energy/total energy	0	
	Energy utilization efficiency	Quantitative statement	NA	
	Recycled materials policy	Quantitative statement	NA	
Water resources	Water usage	mt	9880	Apacer’s water source is Shihmen Reservoir which has surface water; the product manufacturing process of our company does not use water, so our water consumption is mainly daily life service water.
	Water usage density	Water usage/turnover	0.0011 mt/thousand	
	Water resources management or reduction goals	Qualitative statement	Replaced with water-saving taps to reduce service water amount.	
Wastes	Amount of hazardous waste	mt		
	Amount of non-hazardous waste	mt	27.2	
	Total weight (hazardous+non-hazardous)	mt	33.4	
	Waste density	Waste amount/turnover	0.0000038 mt/thousand	
	Waste management or reduction goals	Qualitative statement	We pay attention to the reduction of the generated wastes which are properly classified, recycled, and processed by external parties. The processing of general business wastes and hazardous business wastes is outsourced to qualified third-party suppliers.	
Social issues				
Manpower development	Employee average salary	NTD/person	\$1,178,000	
	Employee average welfare	NTD/person	\$26,777	
	Average salary of full-time employees not holding supervisory positions	NTD/person	\$1,178,000	

## ● Appendix 3 ESG Index Disclosure

Title	Index	Index description	Achievement data in 2022	Remarks
Social issues				
Manpower development	Median salary of full-time employees not holding supervisory positions	NTD/person	\$1,014,000	
	Percentage of female supervisor in management position	Ratio	7%	
	Number of people suffering from occupational hazards	Number	5	
	Ratio of occupational hazards	Ratio	0.03%	
Governance issues				
Board of Directors	Board seats	Amount	9	
	Seats of independent director	Amount	3	
	Proportion of female directors	Ratio	33%	
	Attendance rate of directors attending the Board of Director meeting	Ratio	98%	
	The number of training hours for directors and supervisors is in line with the ratio of training specifications	Ratio	100%	
Communication with investors	Number of annual legal meetings held by the Company	Session	2	

## ● Appendix 4. Newly added indicators for this year's corporate governance evaluation

Number	Evaluation indicators	Status		Remarks
<b>I. Protecting shareholders' rights and equal treatment of shareholders</b>		Things Accomplished	Not achieved	
1.11	Uploading the English version of the annual report 16 days before the commencement of the shareholders' meeting.	V		
1.17	The company does not have any government, juristic person, or their representatives serving as directors.		V	Phison Electronics Corporation has one seat of legal director.
<b>II. Enhancing the Board of Directors' structure and operations.</b>		Things Accomplished	Not achieved	
2.6	Each gender of persons should account for at least one-third of the members of the Board of Directors.		V	1/9 female.
2.7	At least half of the members of the Board of Directors are independent directors.		V	Currently 1/3.
2.21	The person in charge of corporate governance is not concurrently holding other positions within the company.		V	Holding a concurrent post of CFO.
2.22	The Company has established risk management policies and procedures approved by the Board of Directors, for disclosing the scope, organizational structure, and operation of risk management. In addition, they should report to the Board of Directors at least once a year.	V		
2.23	The Company conducts an external evaluation of the Board of Directors' performance at least once every three years, to enhance the effectiveness of the Board of Directors.		V	
2.24	The company has established an information security risk management framework and obtained third-party verification if adopting ISO 27001, CNS 27001, or other equivalent information security management system standards, or similar systems or other standards with equivalent effectiveness.		V	
2.25	All independent directors of the Company have completed the required trainings according to the "Guidelines for Continuing Education of Directors and Supervisors of Listed and OTC Companies.	V		Announcement declared.
2.27	The company has developed an intellectual property management plan linked to its operational objectives and has implemented the Taiwan Intellectual Property Management System (TIPS), ISO 56005, or similar intellectual property management system standards, and obtained third-party verification or audit. The company discloses the implementation status on its website or in the annual report and they report to the Board of Directors at least once a year.		V	
<b>III. Enhancing information transparency</b>		Things Accomplished	Not achieved	
3.4	The company publishes the audited annual financial report within two months after the end of a fiscal year.	V		
3.5	The Company uploads the annual financial report in English 16 days before the commencement of the shareholders' meeting.	V		
3.6	Within two months after the deadline for submitting the Chinese version of the interim financial report, the company discloses the interim financial report in English.	V		
3.13	The company voluntarily discloses the individual remuneration of directors and supervisors in the annual report.		V	
3.20	The company holds at least one corporate briefing or holds a corporate briefing on the operating status for each quarter.		V	Currently, once in Q1 and Q3 respectively.
<b>IV. Promoting sustainable development</b>		Things Accomplished	Not achieved	
4.4	The sustainability report references SASB standards for disclosing relevant ESG information.	V		
4.11	The greenhouse gas emissions, water usage, or total waste weight for the past two years have been externally verified.		V	
4.14	The company regularly discloses the identification of stakeholders, their areas of interest, communication channels, and response methods through its website or annual report. The company also provides periodic reports on stakeholder communication to the Board of Directors.	V		
4.18	The sustainability report references of TCFD for disclosing relevant climate-related information.	V		





## INDEPENDENT ASSURANCE OPINION STATEMENT

### Apacer Technology Inc. 2022 Sustainability 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 purpose of assuring its statements relating to its sustainability report, 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. 2022 Sustainability 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 AA1000AS v3 sustainability 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 Technology Inc. 2022 Sustainability Report provides a fair view of the Apacer sustainability programmes and performances during 2022. The sustainability 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 performance information of Environment, Social and Governance (ESG) are fairly represented. The sustainability performance information disclosed in the report demonstrate Apacer's efforts recognized by its stakeholders.

Our work was carried out by a team of sustainability report assurers in accordance with the AA1000AS v3. 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 v3 and their self-declaration in accordance with GRI Standards 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.
- 12 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 the information of Environment, Social and Governance (ESG) 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 of in accordance with GRI Standards 2021 (For each material topic covered in the applicable GRI Sector Standard and relevant GRI Topic Standard, comply with all reporting requirements for disclosures). Based on our review, we confirm that 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 sustainability topics. However, the future report will be improved by the following areas:

- The organization disclosed "2-21 annual total compensation ratio" in its self-defined formula.
  - a. Median annual total compensation for the organization's top management level/ Median annual total compensation for all of the organization's employees excluding its top management level
  - b. Percentage increase in annual total compensation for the organization's top management level / Median percentage increase in annual total compensation for all of the organization's employees excluding its top management level

It is encouraged that the organization discloses "2-21 annual total compensation ratio" according to the given formula of 2-21, so the precision of the organization's sustainability report can be elevated.

#### Assurance level

The moderate level assurance provided is in accordance with AA1000AS v3 in our review, as defined by the scope and methodology described in this statement.

#### Responsibility

The sustainability 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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000-4/V3-G23C1

Statement No: SRA-TW-791493  
2023-07-26

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