



# ASPEED

# 2022 ESG Summary

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# A Letter From Chris Lin

“ Striving to become a contributor and creator of 'technological civilization' ”

2022 was full of challenges and opportunities and also a year for ASPEED Technology to leap forward. Thanks to our strong corporate resilience, flexible market insights and robust customer relationships, we have created new milestones in operations. Looking ahead, in view of the post-epidemic era and global development, ASPEED will focus on strengthening corporate resilience to reduce risks and improve corporate governance, constantly investing in green research and innovation, and striving to become a contributor and creator of “technological civilization”. To strengthen our corporate resilience and sustainable development, we have been working on product engineering and integration since 2022. BMC SoC, our core products, are expanded in various aspects to fit into the future trends and demands for AI computing, high-performance computing, and immersive applications. We have deepened our core technologies to create a platform for comprehensive development, and we have developed our product integration in two main directions: Cloud & Enterprise Solutions and Smart AV Solutions. In the future, ASPEED will continue to invest in R&D resources to expand its core technologies and develop new applications with enhanced sustainability concepts. These will enable us to explore new product lines, develop new customers and solidify customer relationships, thereby keeping abreast of the changes and developments of the market.

Since the release of the first Sustainability Report and the establishment of Sustainability Committee in 2020, we conduct regular review on ASPEED’s sustainability strategies and short-to-medium term plans, making adjustments as needed. The sustainability strategies and objectives of ASPEED Technology are to use core technologies to enhance green and power-saving R&D. By focusing on building a talented sustainable technology workforce in Taiwan, a robust system of corporate governance, and an inclusive society with shared benefits, we strengthen the corporate resilience of ASPEED Technology towards the next stage of sustainable growth. Our ESG is developing in the three directions of strengthening corporate resilience, focusing on green energy-saving core technologies, and sustainable talents in Taiwan: In respect of “corporate governance”, we build a complete sustainable governance framework and system. We also strengthen the risk management strategies. In 2022, we voluntarily adopted the Task Force on Climate-related Financial Disclosures (TCFD) framework to identify the risks and opportunities posed by climate change and disclosed the results in our report for 2022. In respect of “environment”, we have improved the power-saving performance of our main SoC products, which demonstrate our dedication to the development of the low-carbon semiconductor industry. New product applications will also be developed to reduce energy consumption and minimize their impact on environment. The Board of Directors passed the carbon management program in 2022. We will utilize the SBTi framework to establish science-based carbon reduction targets and adopt renewable energy procurement methods to reduce GHG emissions, thereby progressing towards net zero. In respect of “social participation”, ASPEED places a high priority on sharing the achievements with its employees, with an emphasis on the cultivation of outstanding semiconductor talents and internal retention of talents. In addition to the Company’s comprehensive approach towards a diverse and equitable workplace, we are also working with the College of Education of National Tsing Hua University on the “Women in Technology and Tsing Hua STEAM School Education Development Project” to increase ASPEED’s commitment and support for female science talents. Approaching the 19th year of establishment, ASPEED Technology will continue to shoulder its responsibilities in the semiconductor industry chain. In compliance with the international trends and sustainability reporting standards, we will provide full disclosure of our work on ESG and we wish ASPEED Technology further success on its journey to sustainability.

 **Chairman and President**







## A Letter from CJ Hsieh

“In adherence to the aspiration of ‘Innovation Without Boundaries’ and be consistent in the sustainability strategies set out by ASPEED”

The changes and challenges in the semiconductor industry over the past year have made us realize that only with strengthened resilience and sustainable development can our operations move forward without being affected by market changes. Based on the Company’s sustainable development goals and featuring the approaches of “sustainable integration into corporate operations” which I set out when joining ASPEED in 2022, we continue to practice ESG in daily operations. We remain focused on sustainable supply chain management, digital transformation and information security enhancement as well as low-carbon green operations, systematically developing towards the set management strategies. Through the Sustainability Committee, ASPEED regularly monitors the performance of corporate sustainability-related activities, incorporates sustainable development into the consideration of corporate operational decision-making, regularly reviews and adjusts it at any time according to the actual situation, while at the same time commits to the Board for its continued promotion and implementation of sustainability strategies and objectives.

As a fabless IC design company, ASPEED must work more actively towards a responsible supply chain, which is demonstrated by not only our selection of qualified suppliers, but also the exertion of our influence to help them working with ASPEED in building a green and sustainable semiconductor supply chain. There will also be constant addition of sustainability indicators into the annual supplier evaluations following the Responsible Business Alliance (RBA) framework, including green environment, human rights protection, and green manufacturing. In the future, ASPEED will develop towards Fabless Lite 2.0, where sustainable supply chain management will play a more important role. After one year of implementation, the digital transformation project has gradually reached the stage of digitization of production operation and digital management of supply chain. The next stage of development will be towards data management and analysis to enhance the value of business management comprehensively. In respect of low-carbon green operations, the Board of Directors has passed the carbon management program in 2022. We will formulate goals and strategies to achieve net zero carbon emissions through comprehensive greenhouse gas inventory and renewable energy purchase. Besides, energy conservation and carbon reduction will be implemented through daily measures and continuous promotion to employees.


Looking ahead, in adherence to the aspiration of “Innovation Without Boundaries”, ASPEED will be consistent in the sustainability strategies of the Company. In pursuit of business performance, we will remain committed to sustainable development with the use of core technologies to enhance green and power-saving R&D. We work constantly on digital transformation, in-depth cultivation of sustainable talents and promotion of an inclusive workforce, as a continuation of the achievements of ASPEED over the past 18 years to strive for corporate sustainability.

 **Chief Operating Officer**


# About ASPEED Technology

ASPEED Technology Inc. is a leading fabless IC design company and a top pioneer of System on Chip (SoC) solutions. As the world's largest supplier of Baseboard Management Controller System on Chip (BMC SoC), ASPEED leverages its core strengths in innovation and R&D for global sustainability. By responding quickly to market demand, the Company realizes the mission of bringing excellent technology to businesses and people around the world. ASPEED Technology is also focused on niche markets, and its two major product lines are: Cloud & Enterprise Solutions and Smart AV Solutions. Cloud & Enterprise Solutions cover BMC SoC, Bridge IC and Platform Firmware Resilience (PFR) IC; while Smart AV Solutions include AVoIP Extension SoC, Cupola360 Multi-Image Stitching SoC and Cupola360+ related software.


Cloud & Enterprise Solutions



BMC SoC



Bridge IC



PFR SoC

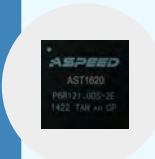
Applications include remote monitoring and host system management, such as server motherboard management controllers, server backplane controllers, server graphics chips, as well as remote network keyboard, mouse, and monitor controllers

A small dedicated processor with built-in memory and storage space, paired with BMC under the Open Compute Project (OCP) architecture to extend the monitoring and management of BMC


PFR (Platform Firmware Resilience) SoC provides enterprise platform firmware security and comprehensive protection against attacks

With BMC SoC, the data center and customer server can be remotely controlled, managed, and repaired **to save energy consumption and labor costs**. The PFR SoC series can **provide comprehensive security protection for customers**. The main product, BMC SoC, has been generationally developed to improve the energy-saving and power-saving benefits of the chips, **helping customers reduce carbon emissions and environmental impacts when using products**.

Smart AV Solutions



AVoIP Extension SoC



Cupola360 Multi-Image Stitching SoC



Software Services and Digital Mobile Apps

Applications include professional integrated AV, remote personal computer extensions, remote AV extensions, remote USB extensions, AVoIP matrix switchers, TV walls, and digital signage

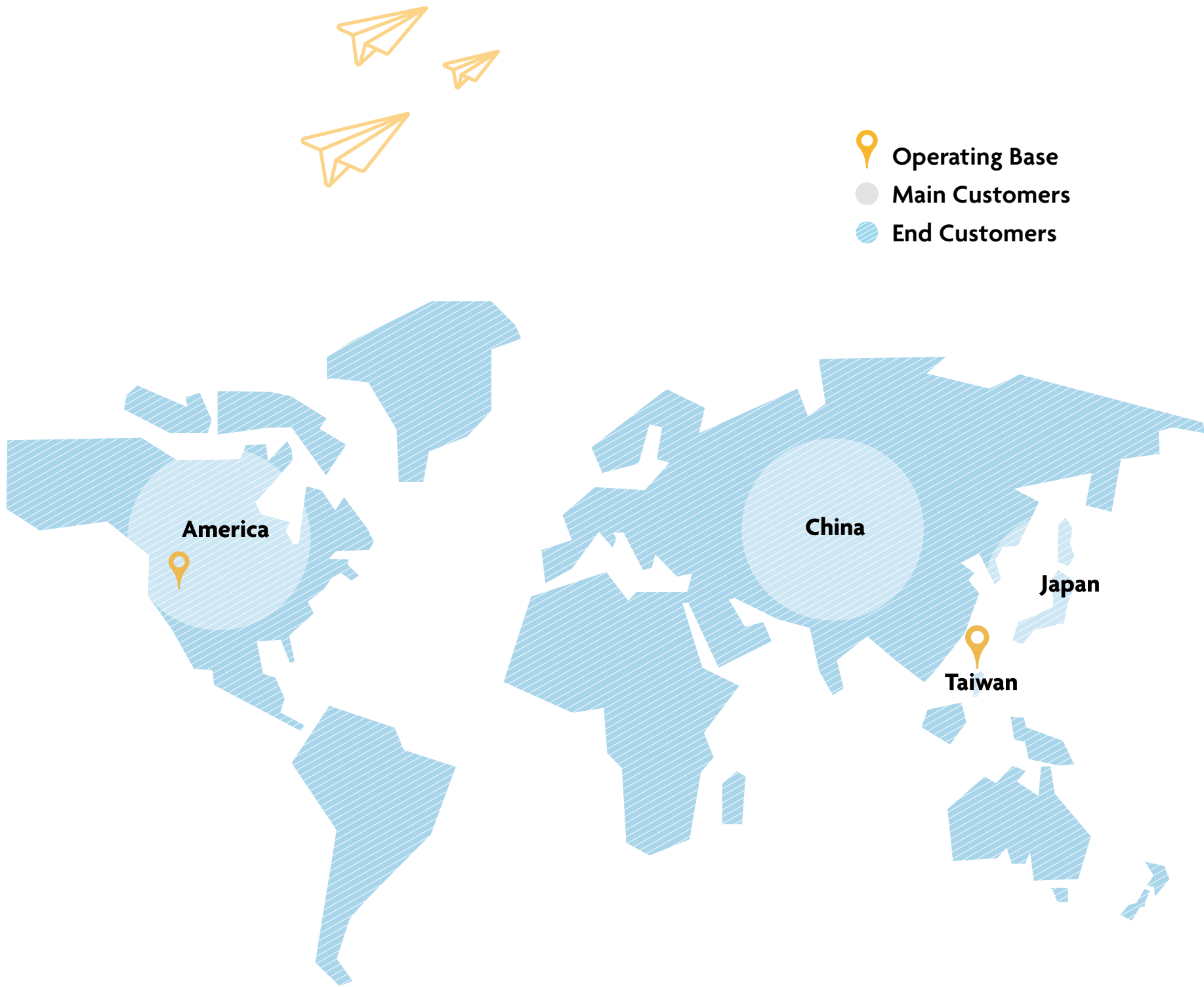
Applications include 360-degree video conferencing systems, consumer cameras, immersive experience as well as smart factory and patrolling applications

Cupola360 multi-image stitching and smart application-related software services and digital mobile apps

We independently develop the 360-degree image processor and apply it to 360-degree cameras for ImmersiveX Experience, and thus **reducing travel mobility, improving efficiency, and lowering carbon emissions and energy consumption**.



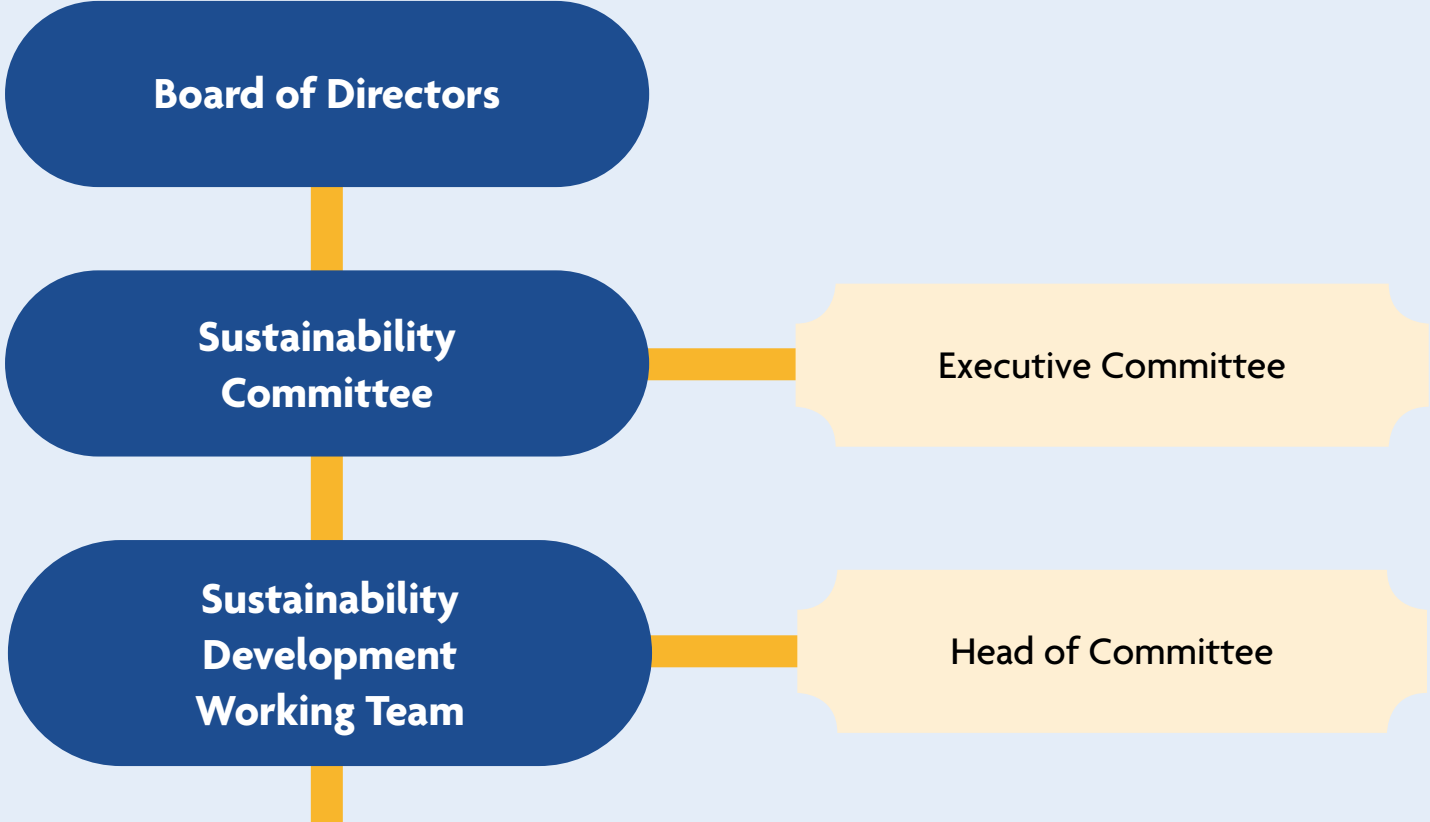
Company Name	ASPEED Technology Inc.
Date of Establishment	2004/11/15
Location of Headquarters	Hsinchu, Taiwan
Public Offering Status	TPEX Listed Company
Industry	Semiconductors
Employees	106 (2022/12/31)



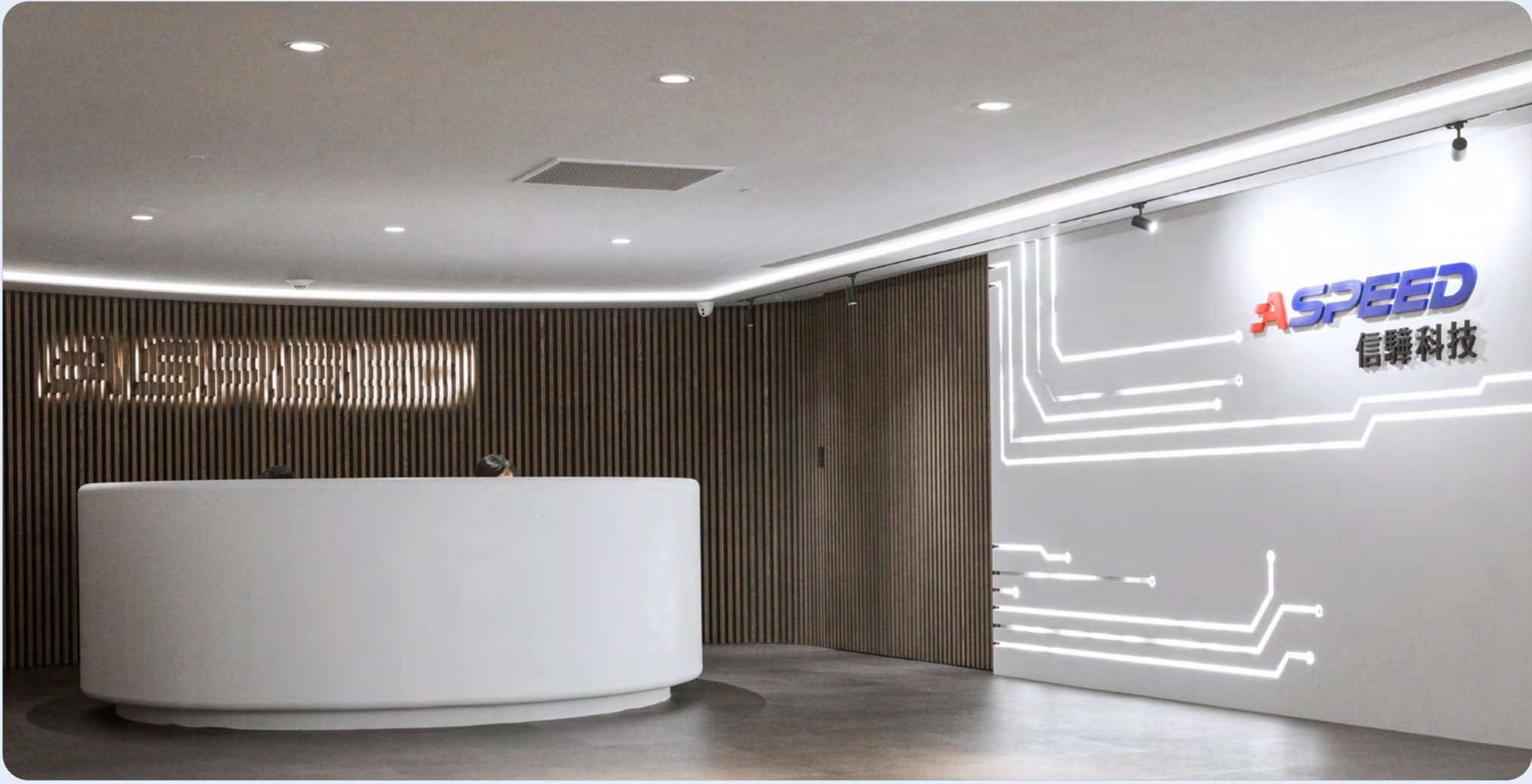


Corporate Sustainability Management Structure

ASPEED Technology has established a Sustainability Committee, and the Sustainability Development Working Team thereunder is responsible for gathering the concerns from various stakeholders and keeping abreast of the development trends of domestic and foreign laws and policies. A meeting is held biannually for each work team to report on their operation. We conduct regular review on ASPEED’s sustainability strategies and short-to-medium term plans. Two meetings were held in 2022, covering: (1). Report on the progress of the Sustainability Development Working Team. (2). In light of the domestic and international regulatory policy trends, a review on the sustainability strategies for 2021 and adjustment on the three-year short-term goals. (3). Final Review of the 2021 Sustainability Report.



Corporate Governance	Risk Management	Environmental Sustainability	Employee Relations	Social Participation
Shareholder rights and interests Board function Company information transparency Legal compliance Ethical corporate management	Risk trend observations Risk analysis and management Risk response and tracking	Green products Environmental protection Supply chain sustainability Energy and climate change	Human rights & Labor rights and interests Workplace environment and safety Employee care Talent distribution and cultivation	Supporting higher education Caring the rural underprivileged Charity donation





# ASPEED's ESG Highlights and Strategy

## Sustainability Strategies

ASPEED Technology uses core technologies to enhance green and power-saving R&D. By focusing on building a talented sustainable technology workforce in Taiwan, a robust system of corporate governance, and an inclusive society with shared benefits, we strengthen the corporate resilience of ASPEED Technology towards the next stage of sustainable growth.

## Sustainability Blueprint

Based on its sustainability strategies, ASPEED Technology sets up implementation targets and plans for three major aspects, including governance, environment, and society. In addition, in the future, we will continue to strengthen the product business layout and expand the platform synergies, focus on strengthening core technologies, and incorporate product development strategies into the sustainable planning while maintaining operational profitability.



### Strategic Development

### 2022 Implementation Results

### 2023-2024 Targets



#### Solidifying corporate governance and strengthening corporate resilience

- Building a complete corporate sustainable governance framework and system
- Strengthening risk management strategies

- In 2022, the revenue and profit grew by 43.23% and 60.38% respectively, reaching a record high for **18** consecutive years
- Customer satisfaction reached **94.74%**
- Strengthened the diversified structure and supervising responsibilities of the Board
- Promoted an independent third-party to supervise the management of anonymous whistleblower reporting system
- Evaluated the risk management and response of climate change to corporate governance, strategy and finance based on TCFD
- Officially signed as a TCFD supporter in response to the TCFD initiative
- Formulated a trade secret protection system and incorporated green proposals as rewards, with a total of **21** applications
- Obtained 58 global patents
- R&D expenditure of NTD678 million, an increase of **23.95%**
- Initiated the first phase of digital transformation project

- Complete the third-party supervised anonymous whistleblower reporting system in 2023
- Increase the number of female board members in the 8th Board of Directors in 2024 to strengthen the diversified structure
- Consider linking ESG performance indicators to executives' compensation
- Establish an independent green innovation program in the trade secret protection system
- Continuously promote the second phase of the digital transformation program, focusing on comprehensive digital electronization and data analysis (AI/BI)



#### Focusing on green energy-saving core technologies

- Regularly performing GHG inventories and passing third-party verification
- Power saving and carbon reduction, formulating carbon reduction targets and actions
- Strengthening core R&D and improving power consumption by chips

- Joined Taiwan Climate Partnership and participated in various affairs
- Responded to the CDP and RBA international initiatives
- Received **ISO14064-1: 2018** GHG Inventories and Certification at the organizational level
- In response to the Science-Based Targets initiative (SBTi) SME Route, set net-zero targets and paths
- Developed and purchased renewable energy
- Main product BMC AST2600 saved over **61%** of energy

- Continuously respond to the CDP and RBA international initiatives, and improve the domestic and international sustainability ratings
- Apply for the SBTi SME scientific carbon reduction net zero target in 2023
- Purchase renewable energy to move towards net zero carbon emissions in self-operation in 2024
- Continuously conduct GHG inventory and obtain third-party certification, and expand the scope of Scope 3 inventory
- Strengthen R&D and continuously improve the energy consumption of the 8th generation of BMC chips



#### Building a talented sustainable technology workforce in Taiwan

- Developing core values of sustainability and promoting ESG for all employees
- Strengthening the cultivation of talents and seeking to advance women in technology industry

- Ranked **1<sup>st</sup>** in median remuneration of non-executive directors among the TWSE/TPEX listed companies in 2022
- Ranked **1<sup>st</sup>** in average salary of all employees among the TPEX listed companies in 2022
- Incorporated the Diversity & Inclusion Policy into "ASPEED Technology's work regulations"
- Employee benefits welfare of **NTD522 million**, annual increase of 51.74%
- **2,352 hours** total training hours in 2022, with an annual increase of 25.26% in the average training hours per person
- Promoted sustainability awareness training, including TCFD workshops, GHG awareness training, information security training, etc.
- Promoted the "Junior Chair Professor sponsorship plan" for **4 years**
- Promoted the "Women in Technology and Tsing Hua STEAM School Education Development Project"
- Social donation of **NTD13.80 million**

- Continuously create compensation packages with market competitiveness and internal equality
- Cooperate with National Tsing Hua University to promote the "Women in Technology and Tsing Hua STEAM School Education Development Project"
- Plan a series of ESG courses to establish the sustainable awareness among all ASPEED employees

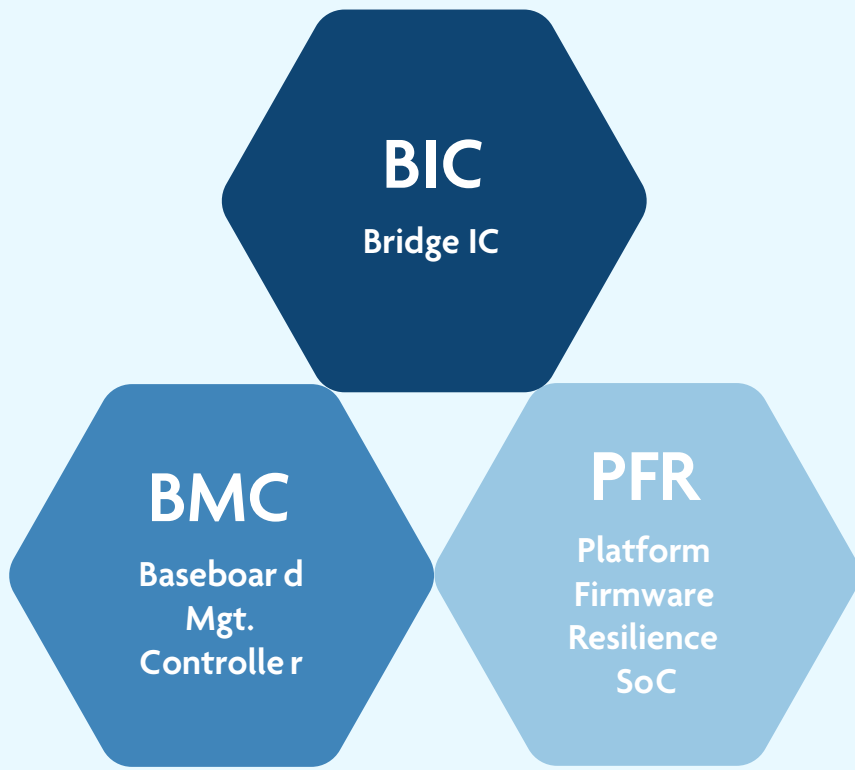


# Technological Civilization, Igniting Innovation

## Diversified Product Portfolio to Create Platform Synergies

ASPEED has been focusing on niche market of chip R&D and developing the Baseboard Management Controller (BMC SoC) and image-related SoCs. In order to effectively expand product portfolio, we gradually develop from previous product selling to platform building, which will then be developed into two major product lines: Cloud & Enterprise Solutions and Smart AV Solutions.

- **Cloud & Enterprise Solutions:** Product line covers Baseboard Management Controller SoC (BMC SoC), Bridge IC and Platform Firmware Resilience SoC; in addition to the original cloud server application, the product application has expanded to switches, storage equipment, and AI operations, and has developed unlimited possibilities based on product depth and customer breadth.
- **Smart AV Solutions:** It integrates the imaging-related SoCs and software developed by ASPEED Technology into a comprehensive efficiency concept with a focus on smart audio-visual application platform. The product line includes AVoIP Extension SoC, Cupola360 Spherical Image Processor and Cupola360+ related software.



### | Applications |

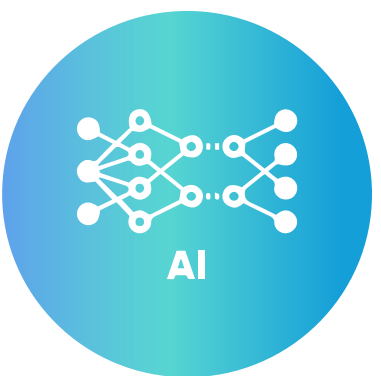
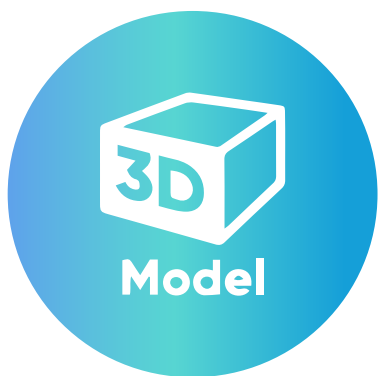
- Video Wall
- Pro AV
- Digital Signage
- Command Center and more....



Cupola360

### | Applications |

- ImmersiveX
- Video Conference
- Live 3D Digital Twin



## 360-Degree Immersive Experience Applications

The Smart AV Solutions of ASPEED Technology leverage our independently developed 360-degree image processor and apply it to 360-degree cameras for ImmersiveX Experience. The application covers smart factory inspection and audit, unmanned field patrol, smart city construction and management, remote virtual education, virtual tourism and entertainment. The physical needs have been reduced through ImmersiveX Experience, which not only reduces the mobility of management personnel and improves management efficiency, but also reduces carbon emissions and energy consumption caused by transportation and on-site audits.

## Information Security Protection

In view of the increasing attention on information security in recent years, how to assist customers in effectively guarding against malicious attacks and provide chips with security protection is also a key focus. In order to strengthen customers' security protection of the server/data centre, ASPEED Technology has specially developed a PFR security system single chip that is paired with BMC chips, using a hardware-based Root of Trust (RoT), providing security protection for the enterprise platform's firmware and comprehensively preventing the attacks on the platform's firmware, ensuring that the code and key data remain complete and have a mechanism to prevent damage; at the same time, it can test whether the data has been damaged or changed, and eventually return all the key data to the original complete state. The PFR security system single chip developed by ASPEED Technology can provide customers with comprehensive information security protection.



Trade Secret Registration System and Incorporating Green Innovation Incentives

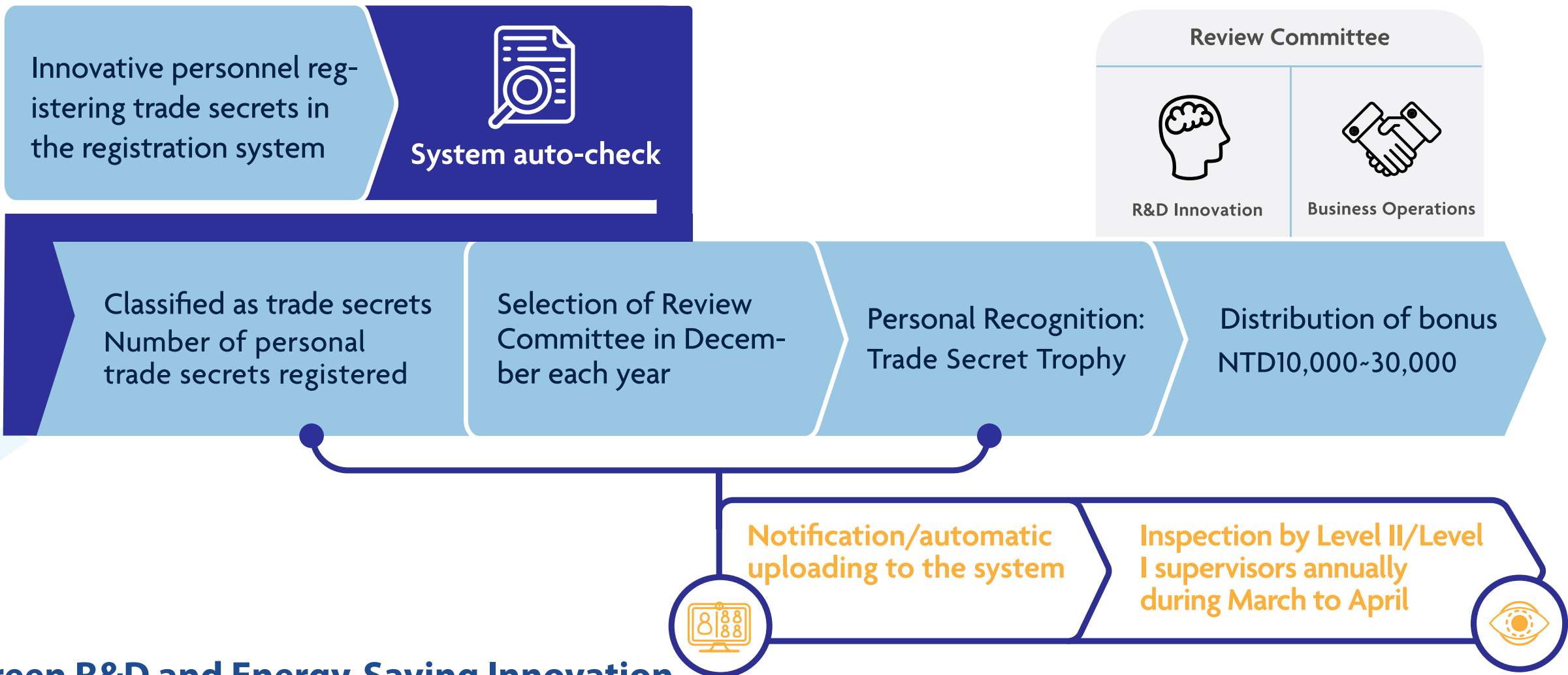
In 2022, ASPEED Technology had acquired 58 patents, consisting of 31 patents in Taiwan, 22 in the United States, and an additional five from Broadcom’s Emulex Pilot™ business.

In 2021, ASPEED Technology recognized trade secret protection as a critical sustainability issue in the IC design industry, and proposed the “Short-Term Planning of Intellectual Property Rights Protection” program. In 2022, the Company actively improved the trade secret registration system and incorporate green innovation incentives to encourage employees to propose environmentally friendly inventions based on core technologies. In order to better protect the intangible assets and technology inventions within the Company with economic value that are not patentable, the Company specially planned the trade secret registration system, which was launched in 2022, to ensure that the intangible key secrets which are more suitable for trade secret protection are all detailed in the centralized management system.

In order to be more integrated for sustainable development and internal green technology R&D and innovation of the Company, the trade secret registration system of ASPEED Technology specially incorporates a green innovation proposal incentive mechanism. The evaluation mechanism includes whether it is in line with green design, green manufacturing and green innovation application. It is targeted at whether it can improve energy efficiency and whether it has a unique contribution to the circular economy, and the above indicators will be included as evaluation criteria for the Gold Award, Silver Award, and Quality Award categories. In the future, green innovation will be separated as an independent selection item, and employees will be encouraged to carry out green innovation-related innovation R&D. The selection criteria include:

- Compliance with green design
- Compliance with green manufacturing
- Contribution to environmental management, energy efficiency improvement and circular economy

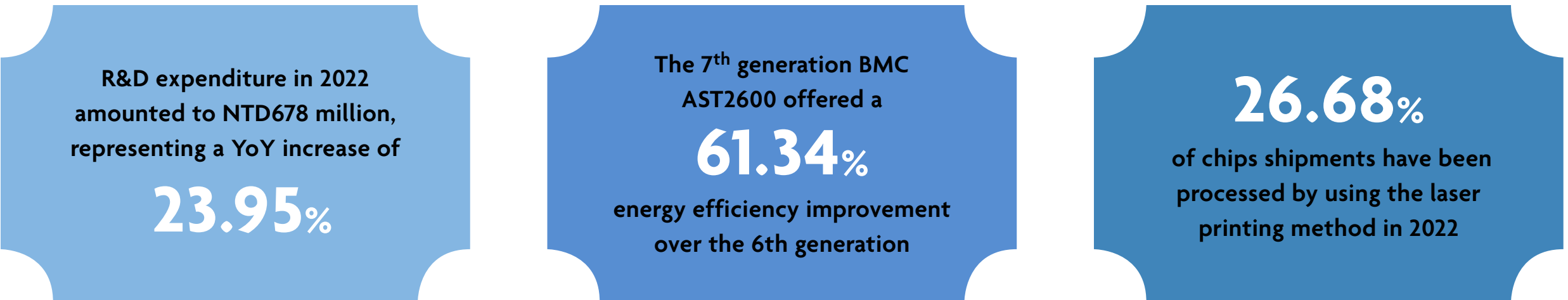
Application Results of the Trade Secret Registration System		Key achievement	2022
<div>A total of</div> <div>21</div> <div>applications/awards in 2022</div> 		Number of applications for quality trade secret in R&D and innovation	11
		Number of applications for quality trade secret in business operations	1
		Number of Gold Award	0
		Number of Silver Award	1
		Number of Quality Award	8



Green R&D and Energy-Saving Innovation

As for green environmental protection and energy saving, we focus on the green R&D of products, how to contribute to sustainable development with our own design strength, including energy-saving and power-saving technology of chips, product application in new green fields and trade secret development. We actively encourage our employees to consider green R&D.

Regarding BMC SoC, since the first generation of AST2000, it has progressed to the seventh generation of BMC SoC – AST2600. In terms of hardware, with the adoption of new design technology and the new generation of semiconductor process, the computing capacity has been greatly improved. Based on this view, ASPEED is committed to strengthening the power reduction of each generation of chips for the same complexity of computing tasks, thereby helping save energy consumption; meanwhile, on the application side, we can reduce the number of products used and optimize the computing power, effectively reducing the overall power consumption. To save energy in software design, we introduce energy-saving and power-saving design to all chips, using independent module design for chip driver. Besides, unused drivers will directly enter sleep mode, greatly reducing electricity consumption. Our efforts in the manufacturing process gradually switched to laser printing on the chip surface instead of the traditional surface ink printing process to reduce pollutants and waste generated during the production process. In 2022, a total of 26.68% of chips shipments have been processed by using the laser printing method, which will reduce considerable ink pollution. In the future, we will switch to laser printing for comprehensive shipping.





# Governance: Empowering Corporate Governance

## Operations of the Board of Directors

In order to continuously refine ASPEED Technology's board structure, we undertake to add at least one female director when the eighth Board is re-elected in 2024 to strengthen the diversity of board members.

ASPEED Technology's seventh Board was established with the selection of nine directors who will serve from 2022 until 2024. The directors have diverse professional backgrounds with both practical and academic research experiences, ranging from operations, semiconductor technology, and finance to network and communications information security as well as international M&A. Four of the nine directors are independent and support oversight by serving as the members of the Audit Committee and Remuneration Committee. For details, please refer to Appendix (2) - 7th Board of Directors members and background. The Board met six times in 2022 and the directors had an attendance rate of 98%. To increase the Board's effectiveness and improve information transparency, the Company conducted the 2022 internal performance self-evaluations, in accordance with the "Rules for the Performance Evaluation of Board Members". Each year, the self-evaluations will be conducted in January and reported to the Board in the first quarter. The internal self-evaluations for 2022 was completed in January 2023 and reported to the Board before the end of the first quarter of 2023. Results are used for review and improvement purposes, and serve as a reference for selecting and nominating future directors.

In order to continuously refine ASPEED Technology's board structure, we undertake to add at least one female director when the eighth Board is re-elected in 2024 to strengthen the diversity of board members.



## Integrity Management and Regulatory Compliance

100%  
Compliance

Corporate governance and integrity management related complaints or penalties  
Information security related complaints or penalties  
Customer privacy related complaints or penalties  
Environmental related complaints or penalties  
Human rights and labor related complaints or penalties

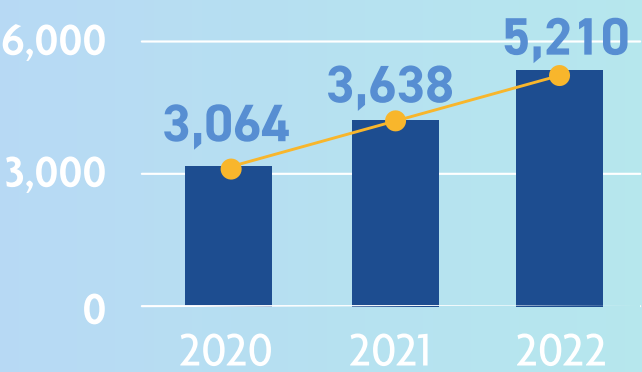
The third-party supervised anonymous whistleblower system was officially launched in June 2023  
[www.aspeedtech.com/tw/social\\_whistleblowing/](http://www.aspeedtech.com/tw/social_whistleblowing/)  
A total of 25 hours of integrity-related education and training was held in 2022.



## Operational Performance

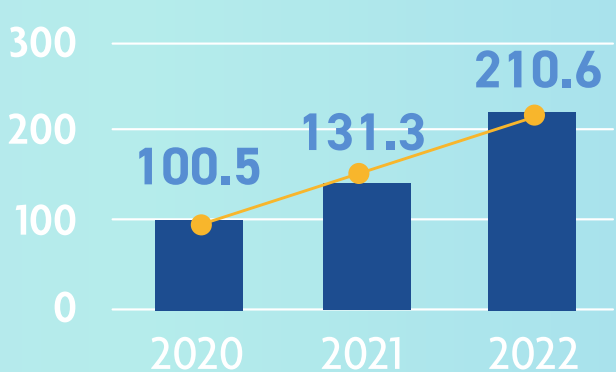
### Annual revenue YoY

+43.23%  
(NTD million)



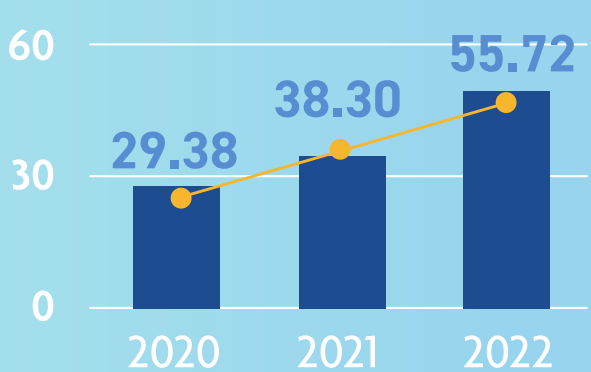
### Annual net profit YoY

+60.38%  
(NTD million)



### Earnings per share YoY

+45.58%  
(NTD million)



Asia's 200 Best Under  
a Billion Forbes Asia

Selected for nine  
consecutive years



International  
Institutional Investors  
2023 Technology &  
Semiconductor

Most Honored Company  
Asia Best Executive Team No.1  
Best Overall ESG No. 1



CRIF Top 5000 - The  
Largest Corporations  
in Taiwan

No. 5 in Business Performance



Taiwan Institute of  
Directors and CDRC  
Consulting Group

Taiwan Best-in-Class 100



2008  
|  
2009

- ◆ Ranked 37<sup>th</sup> in the sales growth category of the 2008 Deloitte Asia Pacific Technology Fast 500
- ◆ Our AST1500 BMC SoC won a Best Choice of COMPUTEX TAIPEI 2009 Award

2014  
|  
2017

- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2014 List
- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2015 List
- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2016 List
- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2017 List

2018  
|  
2019

- ◆ Ranked 21<sup>st</sup> for business performance in the China Credit Information Service Taiwan Top 5,000 Large Enterprise List
- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2018 List
- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2019 List

2022  
|  
2023

- ◆ Chief Operating Officer, Mr. CJ Hsieh, recognized by SEMI with the Industry Contribution Award
- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2022 List
- ◆ Won an "Excellent Supplier Award" from MiTAC Computing Technology
- ◆ Joined Taiwan Climate Partnership
- ◆ Responded to the TCFD initiative and officially signed to become a TCFD Supporter
- ◆ Awarded "Taiwan Best-in-Class 100" by Taiwan Institute of Directors and CDRC Consulting Group
- ◆ Awarded "Asia Best Executive Team No.1", "Best ESG" and "Best IR Team" in No. 1 in 2023 Technology & Semiconductor by Institutional Investor
- ◆ Listed on Forbes' Asia's Best Under a Billion 2023 List
- ◆ No. 5 in Business Performance in CRIF Top 5000 The Largest Corporations in Taiwan

2020  
|  
2021

- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2020 List
- ◆ National Yang Ming Chiao Tung University recognized Chairman Chris Lin as a distinguished alumnus
- ◆ Won a Technology Innovation Award 2019 from Lenovo
- ◆ National Tsing-Hua University recognized Chairman Chris Lin as a distinguished alumnus
- ◆ Included in the Financial Times and Nikkei Asia "High-Growth Companies Asia Pacific 2021"
- ◆ Listed on Forbes' Asia's 200 Best Under a Billion 2021 List
- ◆ Chairman Chris Lin won a 2021 ICT Month Outstanding ICT Elite Award
- ◆ Ranked 67<sup>th</sup> for business performance in the China Credit Information Service Taiwan Top 5,000 Large Enterprise List





# Governance: TCFD Integration Project & Climate Strategy

Since 2022, ASPEED Technology has voluntarily adopted the proposed guidance on TCFD, and revealed four core elements: “governance”, “strategy”, “risk management” and “indicators and targets” in accordance with the recommendations of TCFD to identify the material risks and opportunities that climate change may cause to ASPEED Technology, and put forward relevant

response strategies. In April 2023, the Company officially signed to become a TCFD Supporter. In 2022, ASPEED Technology has identified the risks and opportunities matrixes of climate change based on the two climate change scenarios of heating up 6°C and heating up 2°C as follows:

## Climate Change Related Risks and Response Actions

Time of occurrence assessment

☐ Short-term

☒ Medium-term

Risk prioritization	Risk type and factor	Risk impact oriented assessment	Financial impact oriented assessment	Response strategies	
1	<b>Transition risks – market:</b> Rising raw material costs	<div><div>· Delayed delivery of goods</div><div>· Unstable supply</div></div>	Increase in production costs	<div><div>· <b>Reduce the risk of supplier disconnection:</b> Explore the possibility of introducing multiple suppliers in the future.</div><div>· <b>Enhance customer relationship maintenance:</b> Strengthen communication to enhance customers’ willingness to cooperate.</div></div>	<input type="radio"/>
2	<b>Entity risks:</b> Extreme changes in climate patterns have led to severe disasters	<div><div>· Capacity decline</div><div>· R&amp;D loss</div></div>	Increase in operating costs, decrease in revenue	<div><div>· <b>Set up an operation continuity plan:</b> Introduce remote work process and necessary tools, regularly conduct education and training to maintain productivity.</div><div>· <b>Reduce the risk of supply chain disruption:</b> (1) Optimize the supplier evaluation system (2) Capacity replacement plan</div><div>· <b>Establish a cloud backup mechanism</b></div><div>· <b>Maintain continuous laboratory operations:</b> (1) Uninterrupted power supply (2) Improve energy efficiency (3) Set up a backup laboratory</div></div>	<input checked="" type="radio"/>
3	<b>Transition risks – policies and regulations:</b> Increased regulation of existing products and services	Failure of meeting the requirements resulting in the revision of product specifications may affect the schedule of sales	Decrease in revenue	<div><div>· <b>Keep abreast of product regulations and trends:</b> Through the taskforce for product regulations and trends in the Legal Unit, we will regularly track the latest product-related regulations and trends.</div><div>· <b>Strengthen raw material management:</b> Raw material components used in supply chain production comply with the requirements of EU REACH and RoHS. Such requirements shall be included into the supplier evaluation system for regular supervision.</div></div>	<input checked="" type="radio"/>

\*definition of time horizon: short term: 2022-2024, medium term: 2024-2030, long term: 2030-2050





Climate Change Related Opportunities and Response Actions

Time of occurrence assessment

☐ Short-term

☒ Medium-term

Opportunities prioritization	Opportunities type and factor	Opportunities impact oriented assessment	Financial impact oriented assessment	Response strategies	
1	<b>Products and services:</b> Execution strategies to develop and enhance low-carbon products and services	<div>· Developing low-carbon products to improve market share</div> <div>· Expanding new low-carbon and green domain applications</div>	Increase in revenue	<div>· <b>Optimize existing products:</b> Use green energy and green raw materials in the development process, reduce the carbon footprint of products, and improve the overall revenue contribution of low-carbon products and services.</div> <div>· <b>Develop low-carbon products to enhance competitiveness:</b> Introduce green design concepts in the R&amp;D process, continue to develop low-carbon chips, and recruit outstanding R&amp;D engineers with the concept of sustainable design.</div>	<input checked="" type="radio"/>
2	<b>Products and services:</b> Changing consumer preferences	<div>· Developing new low-carbon opportunities</div> <div>· New applications developed in response to green environment</div>	Increase in revenue	<div>· <b>In-depth understanding of market demand:</b> Regularly conduct in-depth interviews with existing customers and new customers; to ensure that the new generation of remote management products can meet market demand.</div> <div>· <b>Existing product promotion:</b> Further expand the Company's major products, server management chips and audio/visual chips, to more product application fields to continuously explore new customers in new markets.</div> <div>· <b>Planning and development of functions in new products:</b> Plan the market positioning of new products, functional specifications, the process of use, and set the timetable for the development and release of new products, formulate marketing plans and arrange live-machine demonstrations with customers.</div> <div>· <b>Stable supply in response to market demand:</b> Recruit supply chain management professionals and product packaging and testing professionals as the counterparts with upstream suppliers to improve suppliers' delivery quality and delivery rate.</div>	<input type="radio"/>
3	<b>Resource efficiency:</b> Adopting more efficient and effective ways of working	<div>· Operational process optimization</div> <div>· Improving operational effectiveness and increasing efficiency</div>	Cost reduction	<div>· <b>Operational process optimization:</b> Introduce digital transformation and electronic process to assist the optimization of the operational process of warehouse, finance and business divisions.</div> <div>· <b>Digital management:</b> Establish a digital management platform to integrate data and optimize the enquiry methods; establish an electronic verification system and plan to import all data into the BI system for data analysis.</div>	<input checked="" type="radio"/>

\* definition of time horizon: short term: 2022-2024, medium term: 2024-2030, long term: 2030-2050

Based on the results of the above risk and opportunity identification and analysis, ASPEED Technology has formulated relevant quantitative management indicators in 2022 to continuously control the risks and opportunities caused by the impact of climate change, as described in the following table:

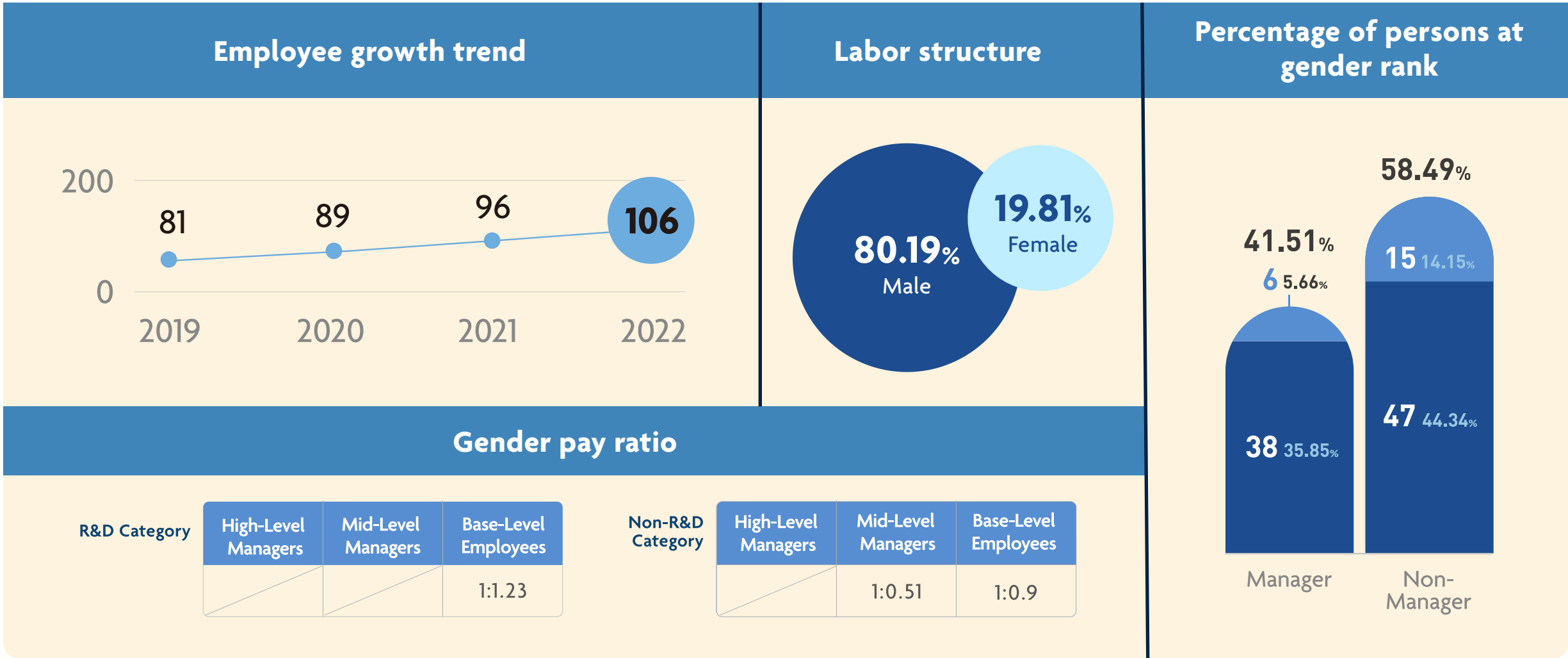
Climate risks	Management targets	Management indicators
Increased regulation of existing products and services	Ensure that the Company is responsive to the latest legal and regulatory requirements	Regular updates on laws and regulations related to products
		Regularly confirm whether the work process is updated in accordance with product-related regulations
		Regularly confirm whether the requirements of suppliers are updated in accordance with product-related laws and regulations
		Regular sharing of product-related laws and regulations

Climate risks	Management targets	Management indicators
Extreme changes in climate patterns have led to severe disasters	Reduce the direct impact of climate disasters on work	Improve the implementation frequency of employees' remote workflow
		Improve the implementation frequency of workflow/cloud-based system
		Laboratory RTO established: Time target for disaster recovery
	Improve the disaster response capacity of laboratories	Laboratory RPO established: Time target for systems & data recovery
		Regularly implement laboratory emergency disaster protection education and training
		Regularly implement laboratory emergency disaster protection drill
	Improve the disaster response capacity of foundries	Increase the proportion of foundries that develop operation continuity plans



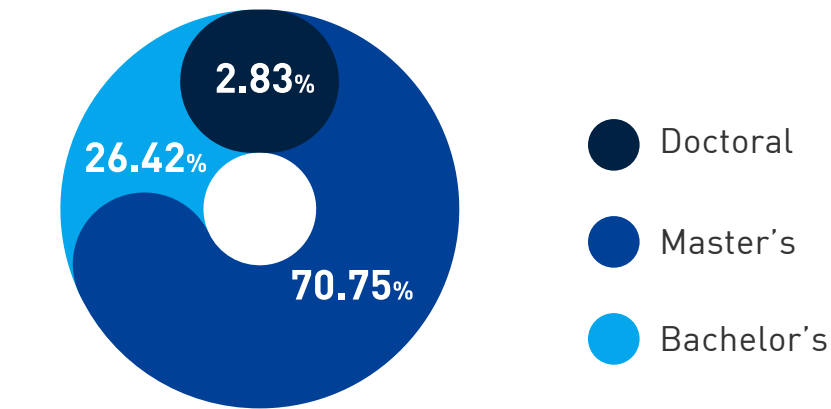
# Inclusive Well-being: Uniting Society & People

In the semiconductor industry in which ASPEED Technology is based, outstanding talents are always our most important asset. In recent years, as the semiconductor industry has thrived, how to successfully retain talents through active recruitment and attractive talent retention policies has become the focus of the development of ASPEED. ASPEED believes that in order to attract talents, it is important to create an environment that allows employees to maintain work-life balance on basis of offering competitive salary and benefits.



ASPEED Technology adopts an equal and friendly recruitment process. Overall, the Company recruits talents mainly based on the job requirement and needs. ASPEED Technology is committed to implementing corporate gender equality, diversity, equality and inclusion; For a long time, the R&D professionals in Taiwan's semiconductor industry have been predominantly male, and the staff composition of ASPEED Technology is also dominated by R&D staff, which is one of the factors for the higher proportion of males in the Company's internal workforce. In recent years, we have implemented the goal of diversity and inclusion in the Company. Since 2022, it has been adhering to the principle of equality in talent recruitment. It has also started to pay attention to the issues of investing in female science and technology talents. A total of two sustainability talent workshops have been held to encourage employees to participate in the discussion of how to exert the influence of ASPEED to promote the issue of female science and technology talents. In 2023, we will organize STEAM Women's Technology Camp to develop diversified professional and technology talents for the industry and implement gender equality.

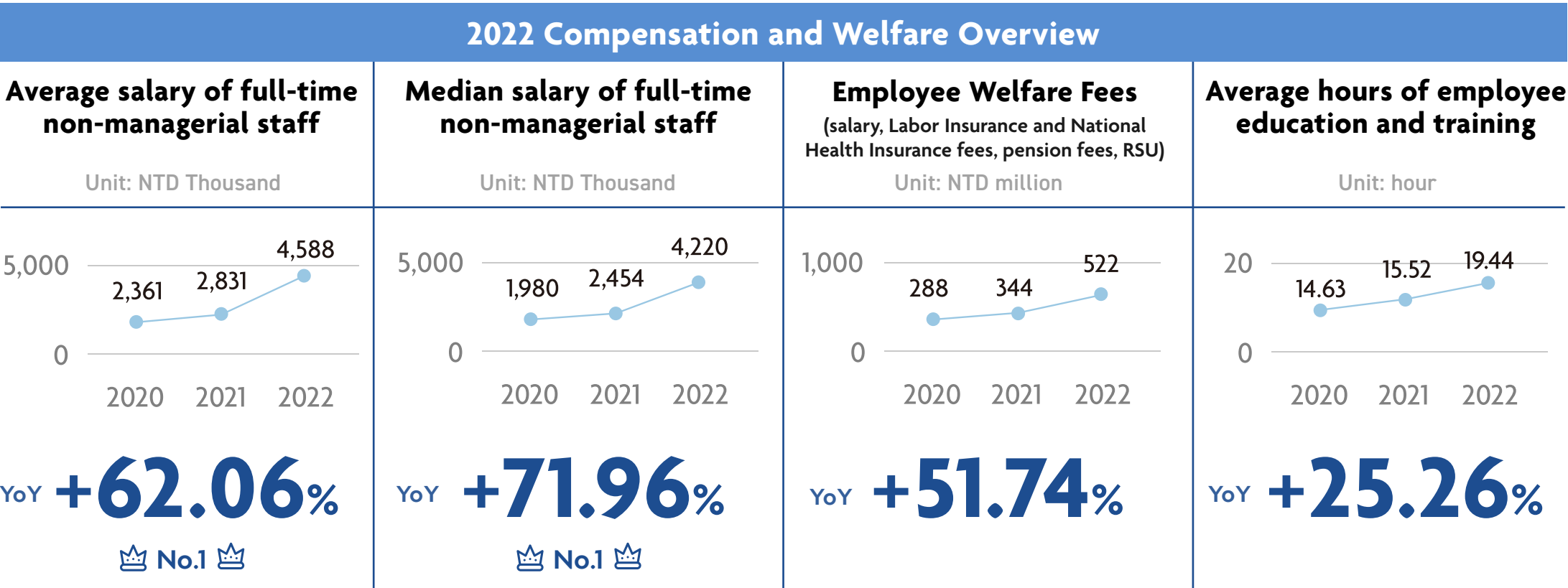
## Staff Qualification Distribution



Average seniority	Human rights violations	R&D staff
5.17 years	0 case	63.54%
Turnover rate	Full-time employees	
12.40%	100%	

ASPEED Technology has a lively, harmonious and creative working atmosphere, and the average seniority of employees is 5.17 years. The average turnover rate in 2022 was 12.40%, higher than last year. After reviewing, it was a normal turnover in the industry. In addition, the accession rate of 20.66% in 2022 also increased significantly compared with the previous year, showing the continuous active recruitment of talents by ASPEED Technology. R&D staff accounted for 65.10% of the total, and those with a Doctoral and Master's degree accounted for 73.58%. In recent years, we have also made efforts to improve remuneration and welfare expenses, fully reflecting the determination and strength of ASPEED Technology on R&D of innovative technology.

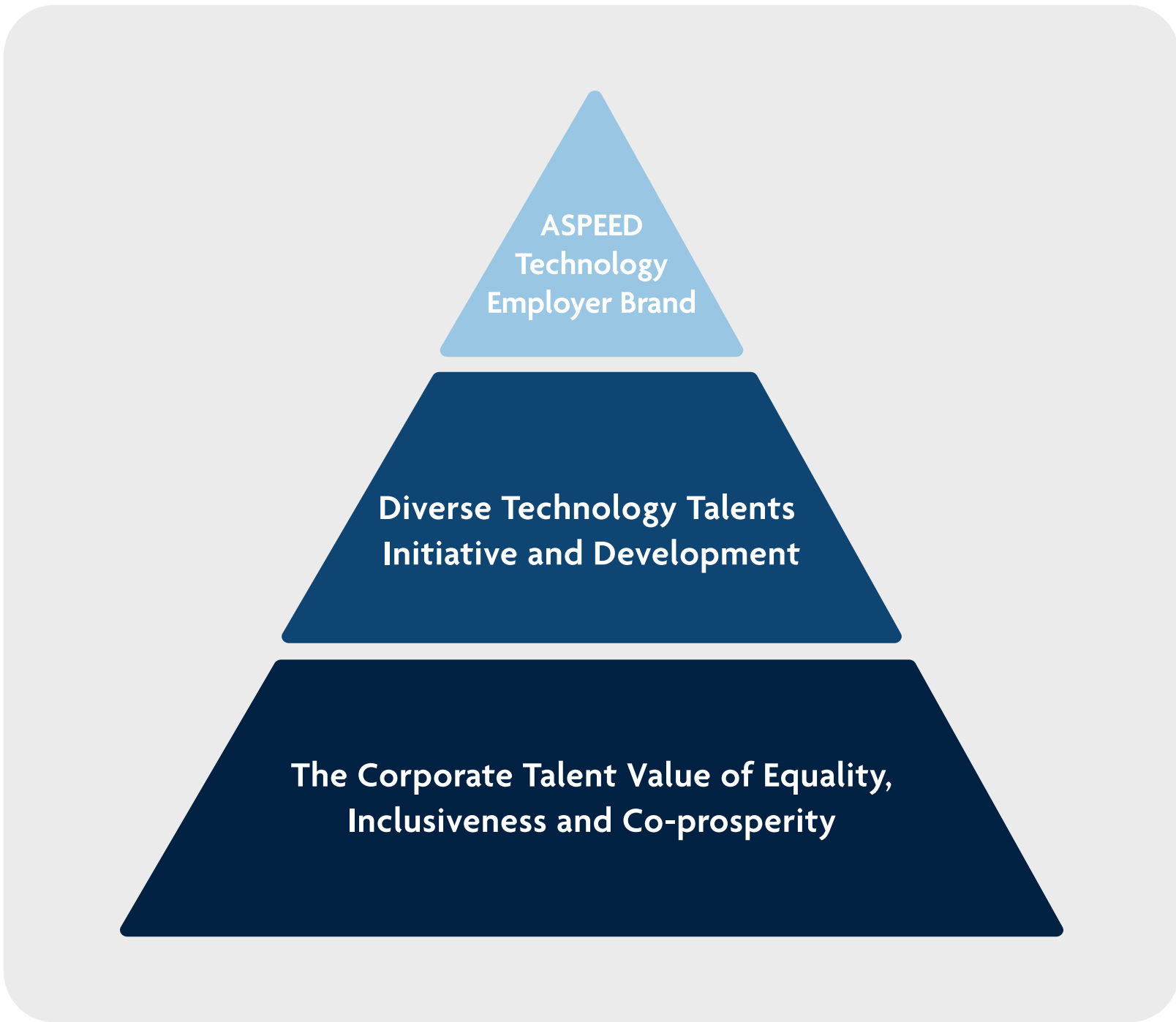
ASPEED Technology scrupulously abides by the laws and regulations of each location it operates while following the principles of international human rights conventions. ASPEED Technology's work regulations explicitly state the policy of diversity and inclusion, which incorporates the principles of diversity, equality, and inclusivity. In 2022, the Company did not have any incidents of human rights violations related to employing child laborers, forced labor, infringement of employee rights, gender equality, or sexual harassment.



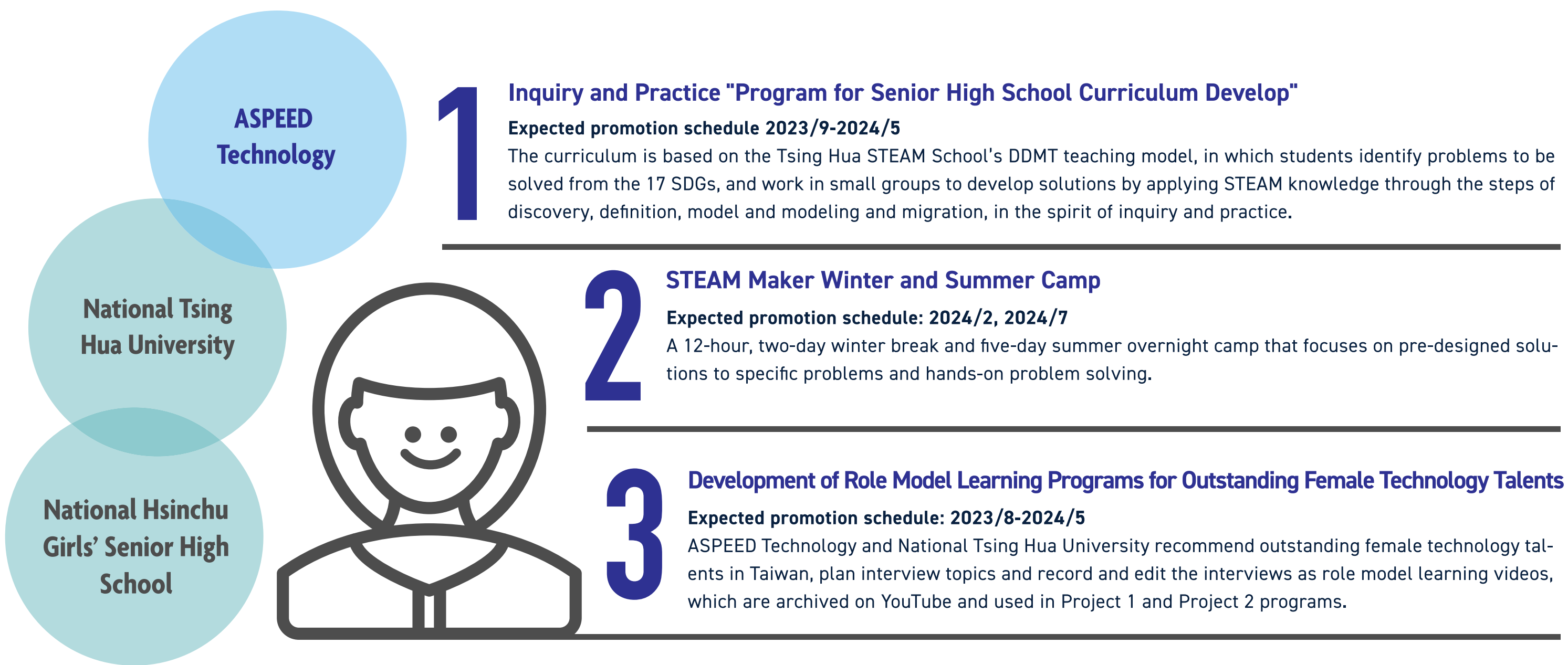


Social Participation and Charity Donations

Every year, ASPEED Technology contributes towards social participation. In recent years, we have gradually taken “Assist higher education and strengthen the cultivation of young students” as our medium and long-term corporate social responsibility goals. As of the end of 2022, besides providing manpower and resources, the Company contributed close to NTD13.80 million towards social causes, mainly for rural education and youth higher education cultivation. In addition to the four-year programs with National Yang Ming Chiao Tung University and National Tsing Hua University since 2020, we have also invested in a series of educational resources.



ASPEED Technology “Women in Technology and Tsing Hua STEAM School Education Development Project”



Sustainability Branding Project Diverse Technology Talents

Since 2021, considering the current gender imbalance in the semiconductor technology talent market, notably that the pool of women in technology is insufficient, ASPEED Technology has started to invest in the Sustainable Influence Program for Diverse Technology Talents, investing resources in sustainability, diversity, and inclusion, as well as the development of women in technology. As of 2022, ASPEED Technology held two workshops on sustainable talents, at which a total of 8 volunteers, who were students from the College of Education at National Tsing Hua University and employees at ASPEED Technology, showing interest in working on this project were invited to join the discussion and work out the “Women in Technology and Tsing Hua STEAM School Education Development Project”. Projected investment of funds and volunteer resources will commence in 2023. By leveraging the core technological expertise of ASPEED Technology and the sharing of volunteer engineers, together with the academic resources of the National Tsing Hua University’s College of Education, we aim to launch relevant impactful activities targeting high school females. We hope this will inspire potential female talents to develop an interest and ability in the field of technology and the project will be continued and expanded to more schools in the future.



# Renewing Our Path: Toward a Net Zero Environment

## Net Zero Path and Carbon Reduction Planning

ASPEED Technology has short-, medium- and long-term plans for carbon reduction. Starting in 2022, we conducted annual inventories and obtained ISO14064-1:2018 external inspection certification. In the future, we will continue to disclose GHG emissions. 2021 was the Company's base year for GHG emissions. Since then, we check our emissions every year. Looking ahead, in response to the Science-Based Targets initiative (SBTi) SME Route, we will set net-zero targets and paths, and at the same time consider the purchase of renewable energy to promote carbon reduction.

### Short term (2023-2025)

#### Net zero path planning and decarbonization strategy formulation

- In response to the SBTi SME Science-Based Targets initiative, setting net-zero targets and paths
- Formulation of corporate decarbonization solutions and purchase of renewable energy
- Completion of Scope 3 examination in accordance with GHG Protocol

### Medium term (2025-2030)

#### Continuous promotion and expansion of decarbonization

- Implementation of corporate decarbonization solutions and gradual increase in the use of renewable energy
- Continue to optimize GHG inventory in Scope 3
- Identify the supply chain's decarbonization goals and begin to drive decarbonization in the supply chain
- Assess and promote product carbon footprint inventory and certification
- Revise SBTi targets and rolling adjustments every five years

### Long term (2030-2050)

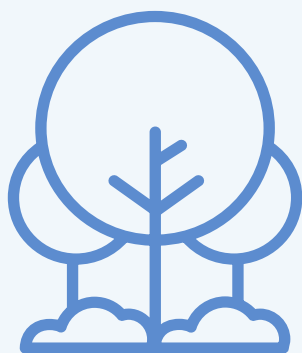
#### Low carbon transformation and empowerment

- Continue to implement and track carbon reduction progress to achieve net zero goal
- Establish a sustainable supply chain system
- Introduce carbon management digital platform
- Revise SBTi targets and rolling adjustments every five years

ASPEED Technology is a fabless IC design company that has passed ISO14001 environmental management system and continuously managed to ensure the company's internal environmental protection. We have achieved the carbon reduction target and introduced the third-party certification ISO14064-1:2018 to implement the GHG inventory, and at the same time been committed to increasing the percentage of local procurement.

### 2022 Achievements

- ✓ 100% Legal Compliance: Air, water, waste, energy management, noise, RoHS, REACH, HF.
- ✓ Zero violations of environmental safety regulations.
- ✓ Continue to implement ISO 14001:2015 environmental management systems and establish related environmental management procedures.
- ✓ Completed third-party GHG verification and certification ISO14064-1:2018.



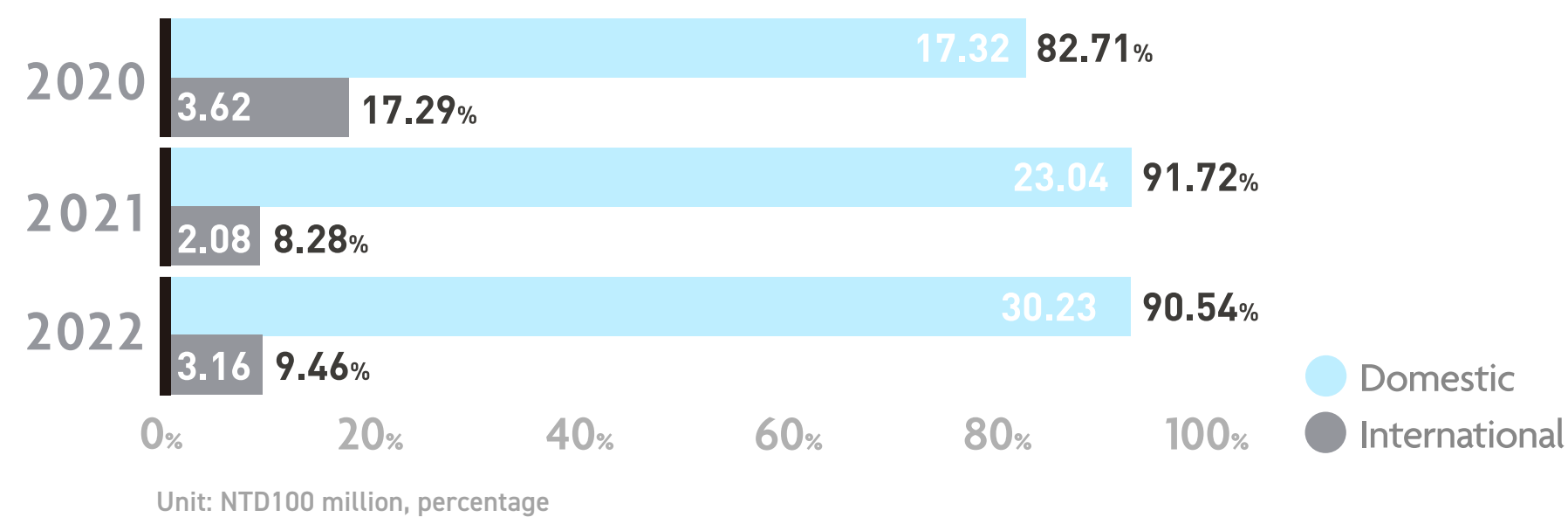
### Daily water usage

	Water usage (metric tons)	Water usage intensity (metric tons/million piece)
2020	3,443	300.25
2021	2,572	198.95
2022	2,692	171.11

### Waste management

2020	2021	2022
0.1393	0.0363	0.1134
metric tons	metric tons	metric tons

### Percentage of local procurement





	Base Year (2021)	2022
ASPEED's GHG emission reduction (tCO2e)	Scope 1 reduction	16.369
	Scope 2 reduction	293.84
	Total reduction (Scope 1 + Scope 2) tCO2e	15.2168
	Total reduction (Scope 1 + Scope 2) %	4.91%

	Base Year (2021)	2021	2022
Total GHG Emissions and Intensity (tCO2e)	Scope 1	16.369	17.3288
	Scope 2 (Location-based)	293.84	277.6634
	Scope 3	8,407.79	11,902.8588
	Total (Scope 1 + Scope 2 + Scope 3)	8,407.79	12,197.8510
	Shipment volume per million piece	13.29	15.731
	GHG emission intensity ratio	655.98	775.4021

Disclosure content	Type of GHG	Total emission	Total emission
Global GHG Scope 1 Emission (tCO2e)	CO <sub>2</sub>	6.3451	17.3288
	CH <sub>4</sub>	7.1326	
	N <sub>2</sub> O	0.1998	
	HFCs	3.6513	
	SF <sub>6</sub>	0	
	NF <sub>3</sub>	0	
	PFCs	0	







ASPEED Technology believes that R&D is at the core of our business and has been putting resources on R&D in recent years. In 2022, R&D expenditure amounted to NTD678 million. The proportion of R&D expenditure to revenue fell slightly due to a 43.21% significant growth in revenue in 2022, but the investment amount increased significantly by 23.95% compared with last year.

Improving Chip Performance

ASPEED continues to invest in R&D to improve chip performance. Assuming that the first generation of BMC SoC AST2000 uses an 80% workload as the benchmark, each generation of single BMC SoC's power consumption is decreasing on a generation basis while reaching the same benchmark. When comparing the 7th generation AST2600 BMC SoC with its predecessor AST2500, a single SoC can save up to 61.34% of power consumption on average per year, while still achieving the same workload. Based on the shipment volume of AST2600, the main product of ASPEED Technology, in 2022, it could reduce approximately 374,454,097 kWh of electricity consumption, equivalent to approximately 190,597.14 metric tons of carbon dioxide emissions, compared with AST2000, and the annual absorbency of 227,290 acres of US forests. Compared with AST2500, AST2600 can reduce approximately 23,744.12 metric tons of carbon dioxide emissions a year, equivalent to the annual absorbency of 28,315 acres of US forests.

\*Based on the 2021 electricity carbon emission factor of 0.509 kg of CO2e per kWh, as announced by the Bureau of Energy, Ministry of Economic Affairs  
\*Used 2022 AST2600 deliveries to calculate total carbon emissions savings for the year  
\*Used the Greenhouse Gas Equivalencies Calculator, from the US Environmental Protection Agency, to calculate carbon absorption capacity

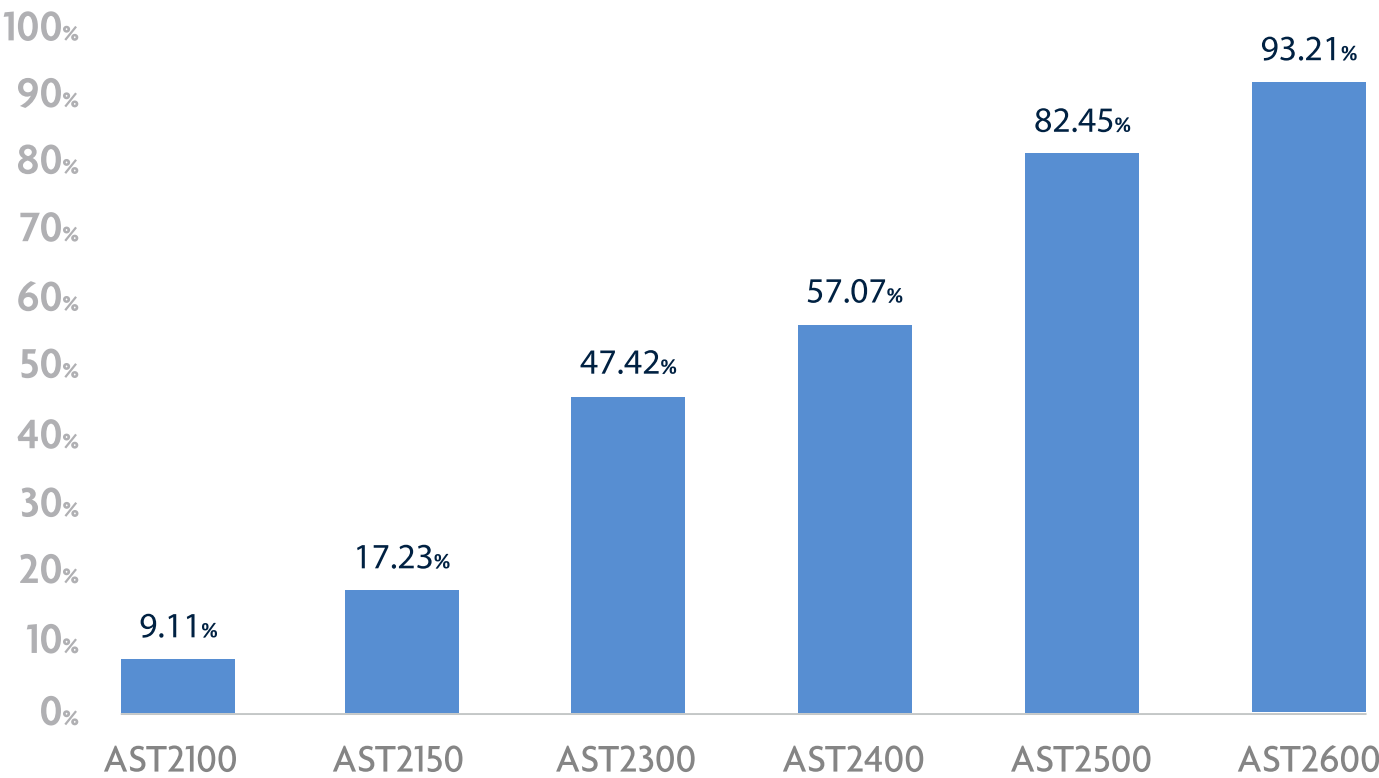


Compared with AST2500, AST2600 can reduce approximately **23,744.12** metric tons of carbon dioxide emissions a year.

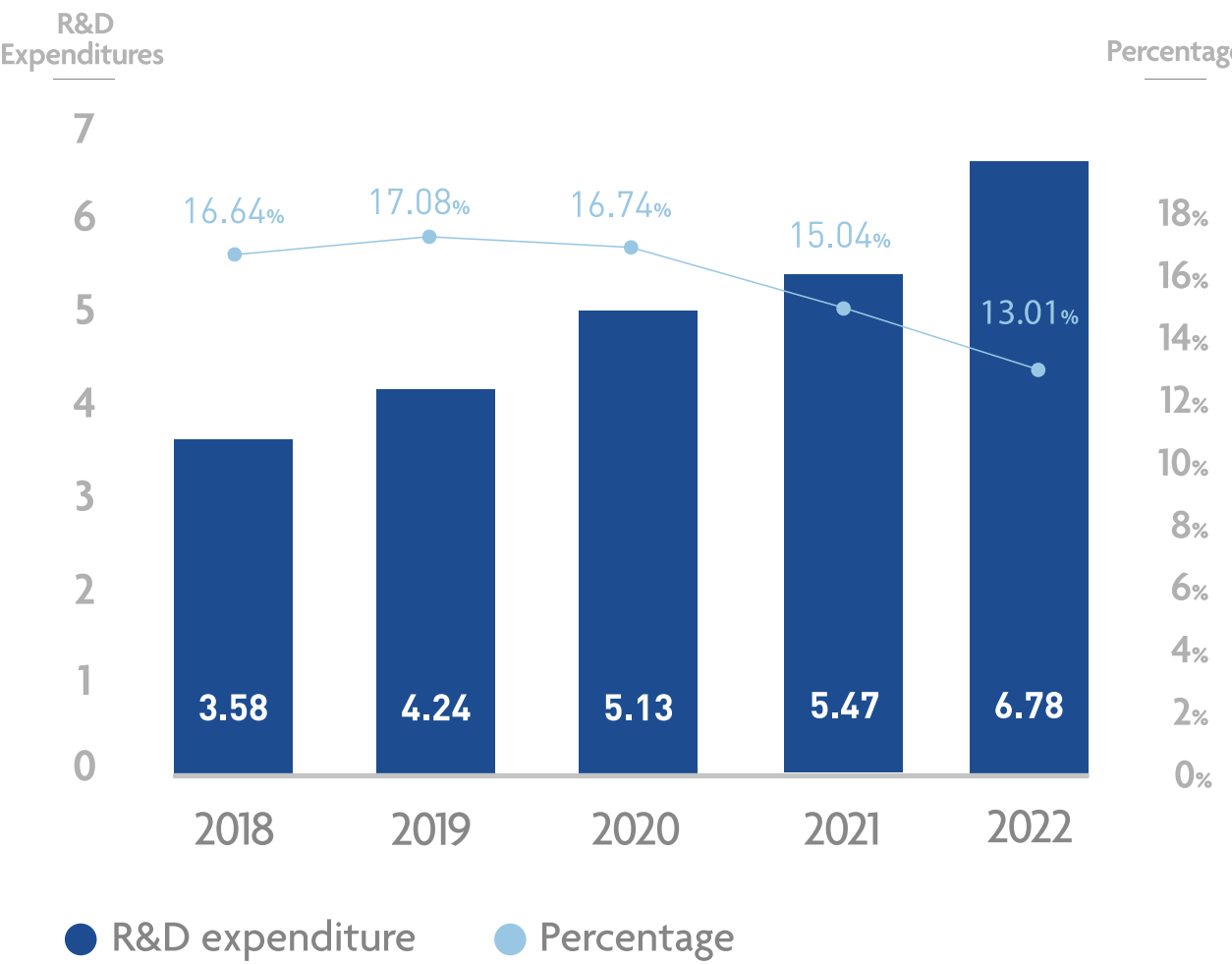


approximately **28,315** acres of U.S forests annual carbon absorbency in one year.

Energy savings for various generations of BMC SoC to achieve the same computing power as the AST2000 1st generation model used at 80% workload



R&D expenditures in the past five years (Unit: NTD100 million)





# Appendix- Material Sustainability Topics and Objectives

2022 Key Achievements	Material Topics	Identified Impact Result	2023 Short-Term Objectives
<ul style="list-style-type: none"><li>Improvement in corporate governance related rankings</li><li>Responding to the TCFD initiative and officially signing to become a TCFD supporter</li><li>Promoting the anonymous whistleblower reporting system</li><li>Promoting Digital Transformation Projects</li></ul>	Corporate governance and integrity operation	Negative impact	<ul style="list-style-type: none"><li>Consider and approve the remuneration of senior management to be included in the perpetual performance indicators</li><li>Complete a whistleblower reporting system under third-party supervision</li><li>Assess and drive the second phase of digital transformation</li></ul>
<ul style="list-style-type: none"><li>0 cases of customer privacy infringement and information security hazard</li><li>In 2022, the Company received a perfect score on the customer information security audit</li><li>Obtained information security management system ISO27001</li><li>Information security education training increased to twice a year</li><li>100% of all employees completed information security education and training</li></ul>	Information security and privacy	Negative impact	<ul style="list-style-type: none"><li>No cases of customer privacy infringement and information security hazard</li><li>Promote the implementation of information security management in accordance with ISO27001 information security management system standards</li><li>Annually conduct two sessions of information security education and training</li><li>100% of all employees completed information security education and training</li><li>System inspection and upgrade for digital transformation</li></ul>
<ul style="list-style-type: none"><li>Received 9 patents; applied for 27 patents; successful year-over-year target achievement</li><li>Established a trade secret registration system for the Company and officially launched in 2023</li><li>Built an intellectual patent portfolio management for new products</li></ul>	Intellectual property rights protection and deployment	Negative impact	<ul style="list-style-type: none"><li>Gradually increase the number of patent applications and applying countries</li><li>Establish a digitalized patent management system</li><li>Establish systematic education and training on intellectual property</li></ul>
<ul style="list-style-type: none"><li>Record revenue and profit for the year: annual revenue of NTD5.210 billion, up 43.23%, and profit of NTD2.106 billion, up 60.38%, maintaining the performance of annual growth since inception</li></ul>	Operational performance and financial performance	Positive impact	<ul style="list-style-type: none"><li>Maintain annual revenue and profit growth</li><li>Enhance product diversification and increase product mix beyond BMC products</li></ul>
<ul style="list-style-type: none"><li>R&amp;D fees amounted to NTD678 million in 2022, an increase of 23.95% over 2021</li><li>AST2600 BMC SoC saved 23,417.58 metric tons of carbon dioxide emissions a year compared to the previous generation</li><li>Gradually shifting to chip surface laser printing shipment to enhance green production</li><li>Incorporate green innovation R&amp;D into the trade secret registration system</li></ul>	Technological and R&D innovations	Positive impact	<ul style="list-style-type: none"><li>Continue raise the proportion of R&amp;D expenses</li><li>Continue to reduce GHG emissions of major chips</li><li>Enhance the importance of green innovation and R&amp;D, set up independent selection awards in the trade secret registration system</li><li>Product innovation and application into green energy saving</li></ul>
<ul style="list-style-type: none"><li>In 2022, ranked No.1 among 1,799 listed firms for average salary of non-management employees</li><li>Spent NTD522 million on employee benefit fees, which was an increase of 51.54% over the previous year</li><li>Raised health check quota for employees over 40 years old</li><li>Provided a quarterly departmental exchange fee of NTD800 per person</li><li>Focused on employees' physical and mental balance, and added emotion-related courses</li></ul>	Employee benefits and care	Positive impact	<ul style="list-style-type: none"><li>Continue to raise the average salary level of all employees</li><li>Enhance employee benefits (economy-oriented and physical and mental health-oriented)</li></ul>





# Appendix- 7<sup>th</sup> Board of Directors Members and Background

\*7th Board of Directors: Term from July 30<sup>th</sup>, 2021, to July 29<sup>th</sup>, 2024

Name	Position	7th Board	Functional Committees	Industrial Knowledge					Professional Capabilities				Number of Publicly Listed Companies Concurrently Serving as an Independent Director
				IC Design	Semiconductor	Network Communications/ Information Security	Silicon IP	International M&A	Operations and Managemen	Marketing	Finance and Accounting	Legal	
Chris Lin	Chairman/President	Re-elected		✓	✓				✓	✓	✓		0
Arnold Yu	Director	Re-elected				✓		✓	✓				1
Luke Chen	Director/Vice President of Sales	Re-elected	Sustainability	✓	✓					✓			0
Ted Tsai	Director	Re-elected					✓	✓					0
Hung-Ju Huang	Director/Vice President of R&D	New		✓	✓								0
Chyan Yang	Independent Director	Re-elected	Audit/Remuneration						✓	✓	✓		3
Dyi-Chung Hu	Independent Director	Re-elected	Audit/Remuneration		✓								0
Sheng-Lin Chou	Independent Director	New	Audit/Remuneration	✓	✓	✓							0
John C. Lin	Independent Director	New	Audit/Remuneration					✓	✓			✓	0





# Appendix- Stakeholder Engagement

Stakeholder Category	Engagement	2022 Communication Results	Topics of Concern
<b>Customers</b> Having the greatest influence on ASPEED Technology's product/technology development and design	<ul style="list-style-type: none"><li>Customer contact email address: sales@aspeedtech.com</li><li>Customer satisfaction survey (annually)</li><li>Sales interviews and interactions (ad hoc)</li></ul>	<ul style="list-style-type: none"><li>Customer satisfaction rate of 94.74%</li><li>37% of domestic and international customers provide written feedback</li><li>No customer complaints were issued to our customer service team in 2021</li><li>Public responses to sustainable management issues raised by customers including CDP, RBA, green product, and conflict minerals, response rate 100%</li></ul>	<ul style="list-style-type: none"><li>Customer privacy and confidentiality measures</li><li>Product quality and customer satisfaction</li><li>Technological and R&amp;D innovations</li><li>Sustainable supply chain management</li><li>Response to international organizations and initiatives</li><li>Management of waste and hazardous materials</li></ul>
<b>Employees</b> Are the most important resource of ASPEED Technology and critical partners for the sustainable development of the Company	<ul style="list-style-type: none"><li>Opinions mailbox: hr@aspeedtech.com (regular)</li><li>Labor-management coordination meeting (quarterly)</li><li>Meeting of Employee Welfare Committee (quarterly)</li><li>Manager discussions</li><li>Employee satisfaction survey (annually)</li><li>Expressing opinions at the end of the year (annually)</li><li>One-on-one discussions (ad hoc)</li></ul>	<ul style="list-style-type: none"><li>Held four labor-management meetings to offer comprehensive discussions and responses relating to labor movement and employee welfare</li><li>Performance assessment reviews take place every April. A total of 104 reviews were held, for a completion rate of 100%</li><li>Weekly in-depth one-on-one discussions with managers in the Operation Division and New Products Division</li><li>All issues were addressed at the year-end satisfaction survey</li></ul>	<ul style="list-style-type: none"><li>Operational achievements and financial performance</li><li>Compensation and performance mechanisms</li><li>Employee benefits and care</li><li>Employee cultivation and career development</li><li>Workplace equality and human rights protection</li><li>Talent recruitment and cultivation</li><li>Community contributions and social participation</li></ul>
<b>Government Agencies</b> Policies, laws or regulations can influence the operational directions or decision making of ASPEED Technology	<ul style="list-style-type: none"><li>General inquiry email address: info@aspeedtech.com</li><li>Official documents, emails, and meetings (ad hoc)</li><li>Advocacy meetings, public hearings (ad hoc)</li></ul>	<ul style="list-style-type: none"><li>Participated in the TWSE Corporate Governance Evaluations</li><li>Conducted ad hoc communication relating to our business or specific topics</li><li>We were not issued any fines or penalties by the competent authorities in 2022</li></ul>	<ul style="list-style-type: none"><li>Corporate governance and ethical corporate management</li><li>Information security and privacy</li><li>Operational achievements and financial performance</li><li>Risk management</li><li>Legal compliance</li><li>Compensation and performance mechanisms</li></ul>
<b>Cooperative Partners</b> Grows with ASPEED Technology through close cooperation, important partner for ASPEED Technology	<ul style="list-style-type: none"><li>General inquiry email address: info@aspeedtech.com</li><li>Social participation and public welfare activities (ad hoc)</li></ul>	<ul style="list-style-type: none"><li>Communicate and visit cooperative partners irregularly</li><li>Invitation to annual events</li></ul>	<ul style="list-style-type: none"><li>Sustainable supply chain management</li><li>Technological and R&amp;D innovations</li><li>Risk management</li><li>Legal compliance</li><li>Compensation and performance mechanisms</li></ul>
<b>Media</b> Reports and assessments impacting the Company's reputation and image	<ul style="list-style-type: none"><li>Media inquiry email address: media@aspeedtech.com</li><li>Press releases for major news (ad hoc)</li></ul>	<ul style="list-style-type: none"><li>In 2022, senior management gave three special interviews following media request, two radio interviews and several telephone interviews</li><li>Issued press releases to announce major news</li><li>One press conference for major news</li></ul>	<ul style="list-style-type: none"><li>Corporate governance and ethical corporate management</li><li>Operational achievements and financial performance</li><li>Technological and R&amp;D innovations</li><li>Legal compliance</li></ul>



Stakeholder Category	Engagement	2022 Communication Results	Topics of Concern
<b>Shareholders/Investors</b> Influencing the stock price by appraisals of Company	<ul style="list-style-type: none"> <li>Investor relations email address: ir@aspeedtech.com</li> <li>Shareholders' meeting (annually)</li> <li>Foreign and domestic investors' meeting (ad hoc)</li> </ul>	<ul style="list-style-type: none"> <li>In 2022, we held one shareholders' meeting and two public investors' conferences</li> <li>For major topics we held ad hoc discussions with domestic and foreign institutional investors. 357 phone/physical meetings in total during 2022</li> </ul>	<ul style="list-style-type: none"> <li>Corporate governance and ethical corporate management</li> <li>Legal compliance</li> <li>Technological and R&amp;D innovations</li> <li>Operational achievements and financial performance</li> <li>Risk management</li> </ul>
<b>Suppliers</b> Providing excellent raw materials of a consistent quality; through close cooperation, we jointly pursue corporate sustainability	<ul style="list-style-type: none"> <li>General inquiry email address: info@aspeedtech.com</li> <li>Supplier meetings (annually)</li> <li>Supplier audits (annually)</li> <li>Critical supplier's ESG commitment (annually)</li> </ul>	<ul style="list-style-type: none"> <li>Held critical supplier meetings</li> <li>Completed five audits of critical suppliers and one evaluation of a new supplier</li> <li>Critical supplier's ESG commitment response rate 60%</li> </ul>	<ul style="list-style-type: none"> <li>Product quality and customer satisfaction</li> <li>Operational achievements and financial performance</li> <li>Risk management</li> <li>Legal compliance</li> <li>Sustainable supply chain management</li> </ul>
<b>Public Welfare Organizations/Academic and Research Organizations</b> ASPEED Technology actively interacts with public welfare organizations, academic research organizations, and cooperative partners to fulfill our ESG obligations	<ul style="list-style-type: none"> <li>General inquiry email address</li> <li>Social participation and public welfare activities (ad hoc)</li> </ul>	<ul style="list-style-type: none"> <li>Accumulated contributions through 2022 were NTD13.7982 million</li> <li>Rural underprivileged caring:               <ul style="list-style-type: none"> <li>-For a seventh consecutive year we participated in the Global Views Educational Foundation's "Plant a seed of reading for the children" event by sponsoring reading materials for students in the Taitung area. We had already donated over 17,000 magazines for a total of 20,000 students at 84 schools in 17 townships in Taitung</li> <li>-Support "Program for Teachers without Teaching Certificate" in Taitung</li> </ul> </li> <li>Supporting the development of higher education:               <ul style="list-style-type: none"> <li>-Launching the 4-year Sunrise Scholarship Program in National Tsing Hua University with estimated budget of NTD1.6 million</li> <li>-Launching the 4-year Junior Chair Professor Sponsorship Program: in National Yang Ming Chiao Tung University and National Tsing Hua University with estimated budget of NTD11.52 million. Sponsoring a total of six professors in the two universities in 2022</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Compensation and employee care</li> <li>Talent recruitment and retention</li> <li>Response to international organizations and initiatives</li> <li>Technological and R&amp;D innovations</li> <li>Social care and public welfare participation</li> </ul>



# Appendix- SASB Index

Type	Category	Code	Accounting Metric	Unit of Measure	Data		2022 ESG report Corresponding Chapterage
1	Quantitative	TC-SC-110a.1	(1) Gross global Scope 1 emissions and (2) amount of total emissions from perfluorinated compounds	Metric tons (t) CO2e	1. Global Scope 1 emissions in 2022 amounted to 17.3288 metric tons of carbon dioxide equivalent. 2. Total emissions of fluorinated compounds in 2022 were 0.		7.2 GHG and Energy Resource Management
2	Quantitative	TC-SC-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	NA	In 2022, ASPEED Technology has completed the ISO14064-1:2018 third-party GHG inspection certification at the organizational level. A carbon management project is expected to be submitted to the Board for approval in 2023 to progressively implement the carbon reduction plan through the purchase of renewable energy and implementation of the recent SBTi SME target planning and application.		7.2 GHG and Energy Resource Management
3	Quantitative	TC-SC-130a.1	(1) Total energy consumed, (2) percentage grid electricity and (3) percentage renewable	Gigajoules (GJ) Percentage (%)	1. 2,055.68 2. 96% 3. 0%		7.2 GHG and Energy Resource Management
4	Quantitative	TC-SC-140a.1	(1) Total water withdrawn, (2) Total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Thousand cubic metres(m³) Percentage (%)	1. 2,962 m³ (Total water withdrawn); 2. 0% in regions with High or Extremely High Baseline Water Stress 2,962 m³ (Total water consumed); 0% in regions with High or Extremely High Baseline Water Stress		7.2 GHG and Energy Resource Management
5	Quantitative	TC-SC-150a.1	Amount of hazardous waste from manufacturing, percentage recycled	Metric tons (t) Percentage (%)	No hazardous waste in 2022		7.2 GHG and Energy Resource Management
6	Quantitative	TC-SC-320a.1	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards	NA	1. ASPEED Technology has a professional occupational safety and health business supervisor, regularly reviews occupational safety, health and environmental protection-related matters, and promotes various occupational safety, health and environmental protection related businesses. The employee coverage rate of the occupational safety and health management system is 100%. 2. Since ASPEED Technology is an IC design company that does not directly operate a factory, in daily operations the Company does not handle substances or chemicals that are hazardous to health. The laboratory only conducts testing simulations, and the occupational safety and health manager primarily focuses on identifying hazard sources in the office environment. The only chemical type employees encounter is unleaded welding chemicals used by R&D personnel. In accordance with regulations, employees who handle these chemicals must wear an N95 mask and the environment must be well ventilated. Lead toxin health exams are conducted to ensure that there is no health impact. 3. In 2022, in response to the changes in the pandemic, the Company distributed masks, alcohol, and other materials to keep the environment clean and disinfected. For the group insurance plan, the Company added vaccine insurance.		6.3 Employee Care
7	Quantitative	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedingsassociated with employee health and safety violations	Reporting currency	None in 2022		6.3 Employee Care
8	Quantitative	TC-SC-330a.1	(1) Foreign nationals and (2) located offshore	Percentage (%)	0		6.1 Employee Composition
9	Quantitative	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	Percentage (%)	0		5.5 Product Quality and Customer Service
10	Quantitative	TC-SC-410a.2	Processor energy efficiency at a system-level for: (1) servers, (2) desktops, and (3) laptops	(MIPS/W)	2,381 (AST2600) 1,652 (AST2500A2-GP) 1,357 (AST2520A2-GP)	580 (AST2400A1-GP) 1,149 (PILOT 4) 1,652 (AST1520A1-GP)	4.3 Green Breakthroughs
11	Quantitative	TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	NA	None in 2022		5.6 Sustainable Supply Chain Management
12	Quantitative	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	Reporting currency	None in 2022		5.1 Corporate Governance and Ethical Corporate Management
13	Quantitative	TC-SC-000.A	Total production	Thousand pieces	15,731		5.2 Operational Performance
14	Quantitative	TC-SC-000.B	Percentage of production from owned facilities	Percentage(%)	NA, ASPEED Technology does not involved production		5.2 Operational Performance





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Sustainability Report (CH)  
2022



Sustainability Report (EN)  
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