

2023

## ESG Summary





## A Letter from Chris Lin

"We hope to respond to the ever-changing environment with our diversified growth strategy"

As a responsible corporate citizen, ASPEED Technology continues to implement specific commitments in the aspects of corporate governance, environmental sustainability, and social participation. Our product planning is based on the dual-axis model, flexibly deploying to strengthen our corporate resilience. In terms of sustainability, we focus on environmental protection and formulate a mid-term carbon reduction plan for the period up to 2030, while also strengthening the Company's overall integrity management. In terms of social participation, we actively engage in industry-academic collaborations to promote the "Women in Technology Cultivation Project", strengthening diversity and inclusion. Through STEAM education and the spirit of inquiry and practice, we aim to assist young females in exploring their careers and encourage them to participate in the technology industry. Corporate sustainability is a commitment of ASPEED, and we will continue to work hard with this as the core of our business to strive for sustainable growth with a stronger operating structure. This year, ASPEED Technology will reach the milestone of its 20<sup>th</sup> anniversary. We hope to respond to the ever-changing environment with our diversified growth strategy and develop new products precisely so that we can continue to grow and thus contribute to the sustainable development of human civilization on the Earth. At the same time, we will continue to strengthen corporate governance, environmental sustainability, employee relations and social participation with a proactive attitude, with a strong commitment to sustainable development.

ASPEED Technology  
Chairman and President



## A Letter from CJ Hsieh

"We will be committed to improving sustainable supply chain management and creating a better supply ecosystem"

ASPEED Technology has formulated a series of policies to strengthen corporate operations and sustainable management, integrating sustainability into the daily operations of the Company, and actively promoting corporate governance, integrity management, intellectual property rights and trade secret systems, digital transformation, information security enhancement, low-carbon green operations, and energy-saving carbon reduction in all aspects to ensure all of them are developing as planned. After the transformation into the Fabless 2.0 new supply chain model in 2023, we will be committed to improving sustainable supply chain management and creating a better supply ecosystem. In 2024, ASPEED Technology will celebrate its 20<sup>th</sup> anniversary. Thanks to the hard work of our employees and the support of our partners and customers, we are able to lay a solid foundation. In the future, we will continue to invest resources and efforts in sustainable management and social participation, while also ensuring the long-term steady development of the Company, fulfilling corporate social responsibility, and creating greater value for the society.

ASPEED Technology  
Chief Operating Officer

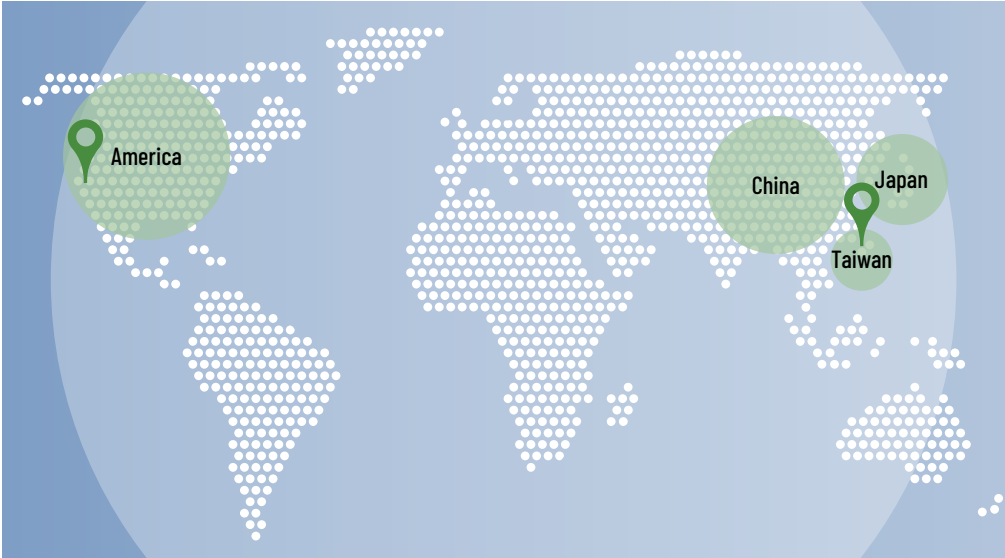


# About ASPEED Technology

ASPEED Technology Inc. is a leading fabless IC design company. In 2016, ASPEED Technology acquired Broadcom's Emulex Pilot™ BMC SoC business. At present, the Company is the world's largest supplier of Baseboard Management Controller SoCs. Since 2014, Forbes included ASPEED Technology on its Asia's 200 Best Under a Billion list for tenth consecutive years. We are therefore awarded the "Decade of Success" honorary award. In 2023, ASPEED was recognized as "Taiwan Best-in-Class 100" and was awarded 2023 All Asia Executive Team - Semiconductor Most Honored Company Ranking No.1 by Institutional Investor, a well-known financial media and research institution in the US. Mr. Chris Lin, Chairman and President, was awarded the Best CEO in Asia.

## Global Deployment and Customer Distribution







 Operating Base    Main Customers    End Customers



Company Name	ASPEED Technology Inc.
Date of Establishment	11/15/2004
Headquarters Location	4-1 Fl., No. 1, Sec. 3, Gongdao 5th Rd., East District, Hsinchu City
Industry	Semiconductors
Employees	120 (12/31/2023)

## Product Planning and Deployment

ASPEED Technology is firmly committed to the mission and core spirit of "technology civilization", focusing on the chip R&D niche market, and developed it with our own strong R&D advantages. The product deployment is heading towards the direction of creating high value-added and sustainable green energy applications, which will then be developed into a dual-axis product planning:

Cloud & Enterprise Solutions		BMC 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.
		Bridge IC	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 SoC	PFR (Platform Firmware Resilience) SoC provides enterprise platform firmware security and comprehensive protection against attacks.
		I/O Expander	Enhancing system capabilities through the provision of additional I/O expander options is an ideal choice for high-performance server environments, enabling efficient and flexible I/O configurations.
Smart AV Solutions		AVoIP Extension SoC	Applications include professional integrated AV, remote personal computer extensions, remote AV extensions, remote USB extensions, AVoIP matrix switchers, TV walls, and digital signage.
		Cupola360 Multi-Image Stitching SoC	Applications include 360-degree video conferencing systems, consumer cameras, smart factories, smart cities, smart patrolling, and 360-degree immersive experience.
	Software Services and Digital Mobile Apps		Cupola360 multi-image stitching and smart application-related software services and digital mobile apps.



## International Sustainability Initiatives and Recognition

In recent years, in view of the importance of sustainability issues and in response to the expectations of our stakeholders and international customers, we have gradually begun to support sustainability-related alliances and international initiatives to contribute to green environment and climate issues. These include joining the Taiwan Climate Partnership, responding to the TCFD initiative, officially signing up to become a Task Force on Climate-related Financial Disclosures (TCFD) Supporter, and joining the SBTi SME. In 2023, we were honored by Institutional Investor with awards for "Best CFO", "Best Investor Relations Professional", "Best Investor Relations Enterprise", "Best ESG", and "Best Investor Relations Team".

## ESG Commitments and International Response

Ethical Corporate Management and Fair Trading	<ul style="list-style-type: none"> <li>• Anti-corruption</li> <li>• Anti-bribery</li> <li>• Anti-improper benefits</li> <li>• Anti-unfair competition</li> <li>• Anti-trust and monopolistic practices</li> </ul>
Compliance with international human rights conventions	<ul style="list-style-type: none"> <li>• Eliminate any employment discrimination</li> <li>• Diverse and Inclusive</li> <li>• No employment of child labor</li> <li>• Equal pay for equal work</li> <li>• No forced labor</li> <li>• Open and smooth labor-management communication</li> <li>• Upholding employees' freedom to form associations</li> <li>• Anti-bullying and anti-harassment</li> </ul>
Responsible Minerals Initiative	<ul style="list-style-type: none"> <li>• Require all suppliers to source their minerals from a conflict-free supply chain</li> </ul>
Responsible Business Alliance, RBA	<ul style="list-style-type: none"> <li>• Require all suppliers to comply with the RBA Code of Conduct, and this requirement is incorporated into the annual supplier audits</li> </ul>
Carbon Disclosure Project, CDP	<ul style="list-style-type: none"> <li>• Actively respond to the international Carbon Disclosure Project (CDP) and publicly disclose carbon emissions annually on the CDP website</li> </ul>
Science Based Targets Initiative, SBTi	<ul style="list-style-type: none"> <li>• Science Based Targets Initiative, SBTi Set net-zero targets and paths following the SBTi SME to combat climate change</li> </ul>

## ISO International Standards



ISO 14001:2015  
Environmental Management  
Systems certification



ISO 9001:2015  
Quality Management  
Systems certification



ISO 27001:2017  
Information Security Management  
Systems Certification



ISO 14064-1:2018  
Greenhouse Gas Verification

# ASPEED's ESG Highlights and Strategy

## Sustainability Strategy

ASPEED Technology is committed to green R&D, focusing on building a talented diverse technology workforce in Taiwan, strengthening the corporate resilience of ASPEED Technology with a robust system of corporate governance, and contributing to the sustainability of human civilization.



### Environmental Sustainability

Focusing on green energy-saving core technologies



### Building a talented sustainable technology workforce in Taiwan

Developing core values of sustainability and diversifying the cultivation of talents



### Solidifying corporate governance and strengthening corporate resilience

Building a complete corporate sustainable governance framework and strengthening risk management

## Achievements in 2023

## Goals for 2024-2025

- Passing the **SBTi SME** scientific carbon reduction target initiatives and initiating renewable energy purchase
- **ISO 14064-1:2018 GHG** inventories at the organizational level
- Responding to the Carbon Disclosure Project (CDP), with the score improved to **B-** "Management" grade
- Including green innovation into the trade secret applications, with sustainability applications accounting for **52.38%**
- Strengthening R&D: The 8<sup>th</sup> generation BMC chips consume **43.07%** less energy compared to the 7<sup>th</sup> generation
- **ISO 14001:2015** Environmental Management System Certification
- **100%** compliance with environmental regulations, **0** complaints and penalties related to environmental issues
- Saved **1,706** pieces of A4 paper in digital transformation

- Annually reviewing whether the reduction paths align with the SBTi paths, and making rolling adjustments to the targets if necessary
- Conducting a comprehensive GHG inventory in accordance with the GHG Protocol
- Continuously reducing carbon emissions in accordance with the SBTi SME science-based carbon reduction target and paths
- Started using renewable energy in July 2024
- Promoting product carbon footprint inventory and certification
- Continuously responding to CDP and RBA international initiatives

- Ranks **No.1**: NTD3.45 million average salary of employees
- Average turnover rate of **1.64%**, setting a new historical low
- Employee mobility rate of **15%**, setting a new historical low
- **0** complaints and penalties related to human rights
- **0** violations related to occupational safety and health issues
- Implementing the "Women in Technology Cultivation Project" sustainable influence program, applying for **SROI** certification in the UK
- Implementing **ESG** education and training courses for all employees
- Emphasizing diversity and equality in workplace, specifying the **D&I** policy in the work rules of employees

- Creating compensation packages with market competitiveness and internal equality
- Upgrading the "Women in Technology Cultivation Project" sustainable influence program to a more comprehensive and sustainable event
- Planning a series of ESG courses to establish the sustainable awareness among all ASPEED employees

- Improving corporate governance grading scale: **6%~20%**
- **NTD671 million** of R&D fees, the highest as a percentage of operating revenue in the past five years
- Appointing a chief corporate governance officer
- Launching the whistleblower reporting system online and introducing external board evaluation
- **100%** Board attendance rate
- **100%** of employees received information security education and training
- **100%** of employees received integrity management education and training
- **0** complaints and penalties related to ethical corporate management
- **0** legal proceedings and penalties for anti-competitive behavior
- **100%** signed the Supplier Social Responsibility Pledge required by the customers

- Increasing the number of female board members in the 8<sup>th</sup> Board of Directors to strengthen the diversified structure
- Considering linking ESG performance indicators to executives' compensation
- Continuously promoting the second phase of the digital transformation program
- Improving the corporate governance grading scale ranking



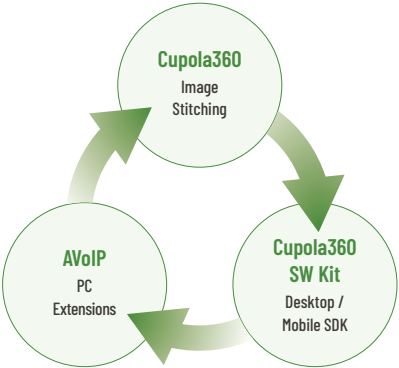
# Green R&D and Innovation

## Sustainable Product Operations and Green Innovation

Dual-axis product model

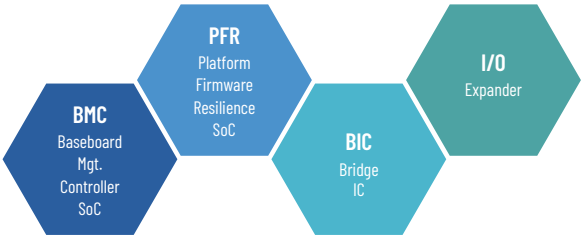
### Cloud & Enterprise Solutions

Centered on Baseboard Management Controller (BMC), increasing the content value per server to expand product line development and thereby expand product synergy.



### Smart AV Solutions

Smart AV Solutions consider application aspects during product development to enhance overall user convenience and incorporate low carbon sustainability. The new type of field management mode created by the Cupola360 series proves that we are committed to a development strategy that combines sustainable growth with the development of high value-added products.



As for green environmental protection and energy saving, we focus on how to contribute to sustainable development with our own design strength. We emphasize enhancing product development investment, focusing on green R&D, green product applications, and supporting green manufacturing. This includes continuously improving the energy-saving technology of our main product, the BMC, and applying new products like the Cupola360 smart field inspection solution to new green fields. By using remote monitoring, it effectively saves a large amount of carbon emissions consumed by field visits. In manufacturing, we also strive to reduce environmental pollution.

### R&D investment

R&D expenditure in 2023 accounted for **21.57%** of sales, the highest in five years

### Green R&D

The 8<sup>th</sup> generation of BMC AST2700 saved **43.07%** of power consumption compared to the 7<sup>th</sup> generation

### Green application

The Cupola360 smart field inspection solution reduced the total carbon emissions from business visits by **168** ton CO<sub>2</sub>e/quarter

### Green manufacturing

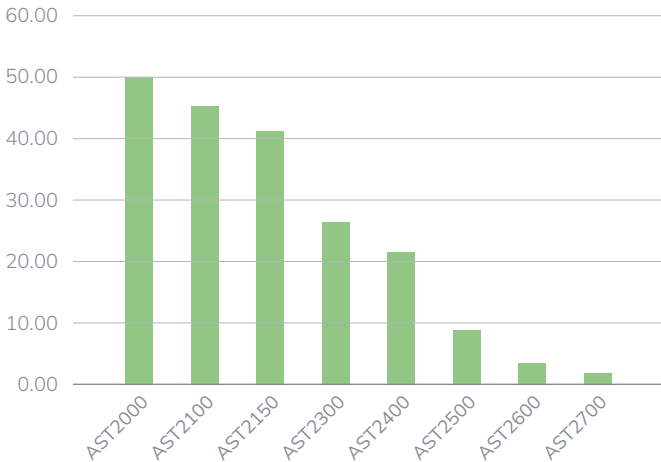
**63.39%** of chip surface laser printing shipments in 2023



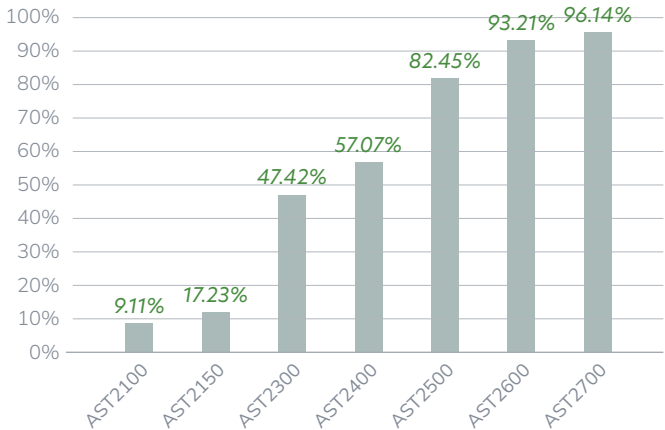
### Green R&D Achievements

- The BMC series products under the same computing power consume less power on a generation basis

Power Consumption (W) required for the same computing power



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



- The Smart AV series is designed for ICs to save power consumption

Product line	Model	Energy saving
Cupola360 seriesx	Cupola360 FW	After energy-saving control, the average power consumption is reduced by 3.56% when the device is idle.
Cupola360 software	Cupola360 Studio APP	The new generation of APP reduces CPU utilization from 15% to 2% compared to the previous generation, and the power consumption has also decreased.
AVoIP Series	AST1530/AST1535	The latest AVoIP products, the AST1530/1535 series, have increased power efficiency, requiring 30.30% and 59.07% less power respectively, compared to their predecessors, the AST1525 and AST1520, for the same image processing capability.

# Intellectual Property Rights Protection and Deployment



As a member of IC design, ASPEED Technology treasures innovation and R&D as its most important assets and missions. We continue to increase the quality and quantity of patents through core technology development and high-quality products. In 2023, the number of global patent grants has significantly grown by 100% compared to last year. At the same time, we conducted a total of 10 IP-related education and training sessions for all R&D personnel. 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, and the above indicators will be one of the items for the Gold Award, Silver Award, and Quality Award. In the future, green innovation has been divided into independent projects, and employees will be encouraged to carry out green innovation-related innovation R&D.

2021	2022	2023
<ul style="list-style-type: none"><li>Full-time Legal Management Division</li><li>Increase in intellectual property patent bonus</li><li>Improvement in the intellectual property portfolio management process</li></ul>	<ul style="list-style-type: none"><li>Planning for short-term/long-term development of intellectual property</li><li>Launching the trade secret registration system</li></ul>	<ul style="list-style-type: none"><li>Intellectual property education and training</li><li>Trade secret registration system education and training</li><li>Setting up a Green Proposals Incentive Mechanism</li></ul>

## Application Achievement of the Trade Secret Registration System

Key Achievement	2022	2023
Number of applications for quality trade secret in R&D and innovation	11	21
Number of applications for quality trade secret in business operations	1	3
Number of Gold Award	0	1
Number of Silver Award	1	3
Number of Quality Award	8	11
Number of applications for sustainability-related trade secrets	Not counted	11

## Digital Transformation and Low-Carbon Operation

Since 2021, ASPEED Technology has been promoting its Digital Transformation Program to improve operational efficiency and solve problems in traditional processes through digital technology. The first phase of digital transformation has been completed and will continue to be refined according to the needs of each division. Through digital transformation, ASPEED Technology has effectively enhanced the Company's internal operating efficiency, saved a lot of working hours, and at the same time, gradually achieved paperless operations due to the introduction of electronic verification system, which is a step towards low-carbon operations. The digital transformation process re-engineering has resulted in a saving of 2,891 working hours and a total of 1,706 pieces of A4 photocopying paper in 2023.

### Phase One

**Systematic data integration**

- Introduction of IDL module for ERP system
- Systematic integration of data, construction of information data platform

### Phase Two

**Document management/ electronic verification**

- BPM digital signature and electronic verification system
- Document Management System, DCC

**Customer management and support**

- Order audit management system
- Establishment of a proxy recording management mechanism
- BI/AI management analysis



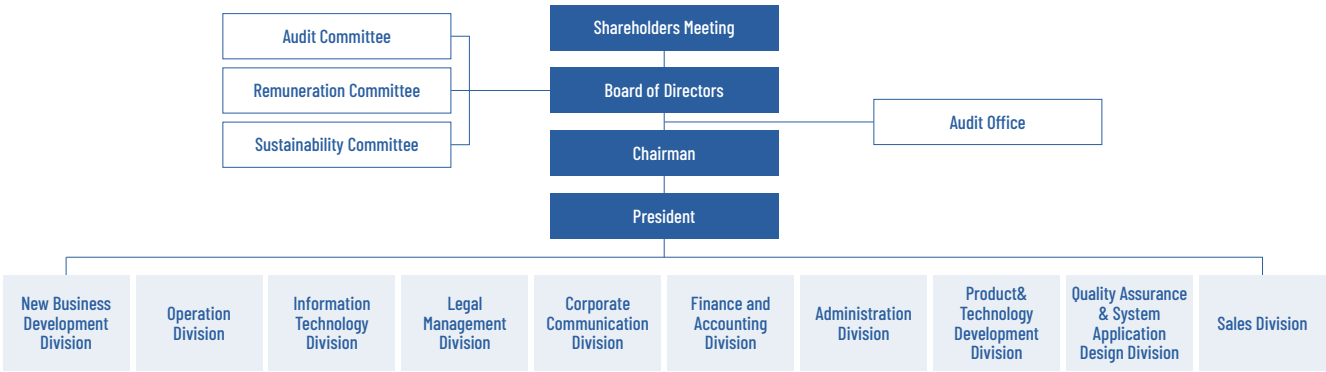
# Corporate Governance

## Corporate Governance and Ethical Corporate Management

ASPEED Technology's commitment to sustainability promotion and corporate governance implementation were recognized when the Company's ranking and score in the TWSE corporate governance evaluations have been increasing year by year since 2020. To further strengthen corporate governance performance and intensity, ASPEED Technology adheres to the Financial Supervisory Commission's "Corporate Governance 3.0—Sustainable Development Roadmap." The Company uses the TWSE corporate governance evaluation results as a reference for determining areas where improvements are needed, including having already provided more detailed disclosures in annual reports and on the corporate website, and implementing a candidate nomination system for the election of directors and independent directors.

## Company Organization

The Board of Directors is the highest administrative unit of ASPEED Technology. The nomination and selection of Board members is conducted by following the "Procedures for the Election of Directors and Supervisors." Oversight of Company operations, formulation of strategies and guidelines, identification of operational risks, and planning of sustainability development guidelines are carried out in accordance with the "Company Act," the "Articles of Incorporation," and authority assigned by Board decisions.



## Key Points and Results of Implementation in 2023

- Ranking in the corporate governance grading increased to the scale of 6~20%
- 14 hours of education and training on ethical corporate management, completed education and training on ethical corporate management for all employees
- Appointing a chief corporate governance officer
- Strengthening ethical corporate management and setting up a whistleblower reporting system
- Introducing third-party external board evaluation
- Board diversity: added a new seat for a female director to the new slate of members of the 8<sup>th</sup> Board in 2024

## ● Ethical Corporate Management and Legal Compliance

0

Complaints and penalties related to:

- Ethical corporate management
- Information security
- Customer privacy
- Environmental issues
- Human rights

100%

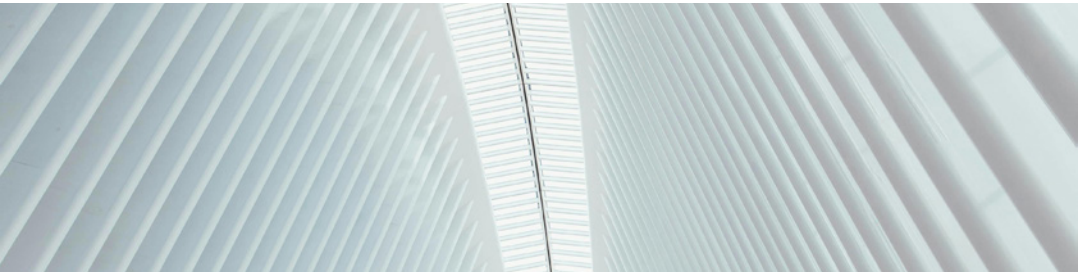
Board attendance rate and operations of the functional committees

- 5 Board meetings, with attendance rate
- 5 Audit Committee meetings, with attendance rate of independent directors
- 3 Remuneration Committee meetings, with the attendance rate of independent directors

Operations of the Board of Directors and Sustainability Management

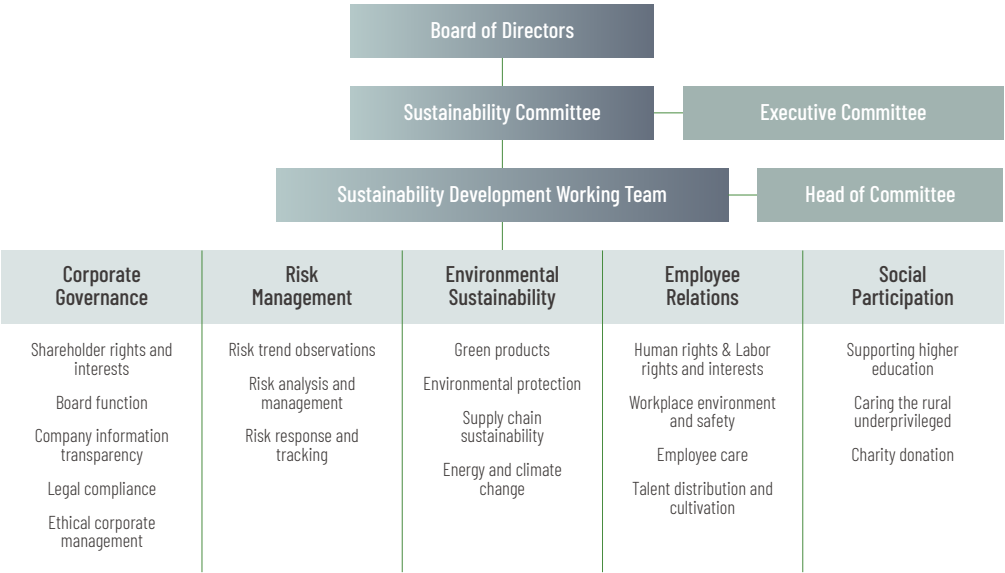
In 2023, ASPEED Technology's 7<sup>th</sup> Board was established with the selection of 9 directors who will serve until May 2024. The directors have diverse professional backgrounds. 4 of the 9 directors are independent and support oversight by serving as the members of the Audit Committee and Remuneration Committee. In 2023, a total of 5 Board meetings, 5 Audit Committee meetings, and 3 Remuneration Committee meetings were convened, with an attendance rate of 100% by all directors. Sustainability-related issues and implementation are decided and executed by the Sustainability Committee under the Board of Directors, who will report to the Board of Directors once in each of the first and second half of the year. The following contents were presented on the board meeting in March and November 2023:

Content	
Annual Sustainability Projects	<ul style="list-style-type: none"><li>Report on 2022 Sustainability Report and ESG Summary and submission for approval</li><li>Explanation of the 2024 expected promotion and implementation of sustainability management strategies</li></ul>
Carbon Management	<ul style="list-style-type: none"><li>Reported and passed the carbon management policies</li><li>Renewable energy purchase plan submission for approval</li><li>Responded to SBTi Science-Based Targets initiative and set carbon reduction targets</li><li>Results of GHG inventories</li></ul>
Corporate Governance and Risk Management	<ul style="list-style-type: none"><li>TCFD assessment results to the Company's risk management and response</li><li>Intellectual property management and report on the implementation</li></ul>



Re-election of the Board of Directors

In May 2024, the selection of new members for the 8<sup>th</sup> Board of Directors was conducted. The re-election of the Board mainly considered the diversity, independence, and eligibility (professional background and ethical conduct) of the director candidates. A Board meeting was held to review the list of independent director candidates (along with general director candidates). After the Board's approval, the recommended list of independent director candidates was announced and submitted to the shareholders' meeting for election. The current term confirms the nomination of Prof. Chen-Fu Chien, Senior Vice President for Administration and Chair Professor of National Tsing Hua University, and Ms. Kathy Yang, former Senior Vice President of CDIB Capital Group, to serve as the new independent directors to replace the retiring directors Chyan Yang and Dyi-Chung Hu. Both directors have extensive experience in the academia as well as finance and venture capital. They have participated in the operation of the boards of directors of a number of renowned enterprises both at home and abroad, and are expected to further enhance the professionalism and diversity of the Company's Board and help lead the Company towards sustainable operations.



Operational Performance and Financial Performance



Operations of the Functional Committees

	Composition of members	Number of meetings held	Duties	Summary of Internal Communication Execution
Audit Committee	4 independent directors	5 times 100% attendance rate	The Audit Committee aims to assist the Board of Directors in supervising the quality and reliability of the Company's implementation of accounting, auditing, and financial reporting processes	The Audit Committee and the Company's internal audit personnel discuss issues related to internal audit matters, audit reports, risk assessments, identified problems, and follow-up improvements. They also hold meetings with the CPAs to discuss legal compliance and issues that require special attention in the future. In 2023, no special circumstances were found.
Remuneration Committee	4 independent directors	3 times 100% attendance rate	Supervise the remuneration system of the Company's directors and managers to perform its duties faithfully and propose to the Board for review	

Board of Directors Performance Evaluation

Evaluation method	Internal self-evaluation	External performance evaluation
Description	The Company conducted the internal performance self-evaluations in accordance with the "Rules for the Performance Evaluation of Board Members". Each year, the self-evaluations of the previous year will be conducted in January and reported to the Board in the first quarter. The internal self-evaluations for 2023 was completed in January 2024 and reported to the Board before the end of the first quarter of 2024. Results are used for review and improvement purposes, and serve as a reference for selecting and nominating future directors.	In October 2023, the first external board evaluation was introduced, and Taiwan Corporate Governance Association was commissioned to conduct the evaluation on eight major aspects of the Company's Board, including its composition, guidance, authorization, supervision, communication, internal control and risk management, self-discipline and others, and completed the evaluation by questionnaire and on-site inspection. In December 2023, the evaluation report on the performance of the Board of the Company was issued. The recommendations and measures to be taken in the evaluation report have been submitted to the Board in the first quarter of 2024. In general, the external expert team of Taiwan Corporate Governance Association recognized the Board's diversity and professionalism, the open deliberative culture, and the determination to implement corporate governance and enhance the operational efficiency.



8<sup>th</sup> Board of Directors: Term of office from July 30<sup>th</sup>, 2021 to July 29<sup>th</sup>, 2024

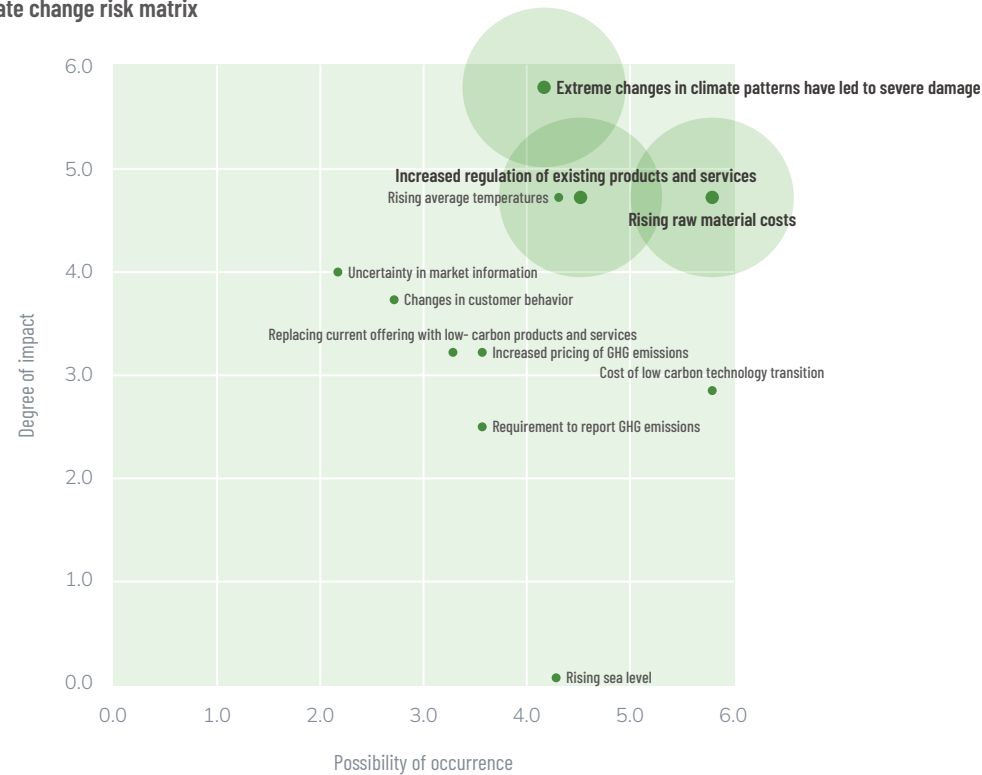
\* The term of office of the 7<sup>th</sup> Board of Directors, which was to run until May 29<sup>th</sup>, 2024, lapsed automatically as a result of the re-election of directors

Implementation of the Diversity																		
Name and Title	Nationality	Gender	Employed by ASPEED	Age			Independent Director Period (Years)				Operational Judgment	Accounting and Financial Analysis Skills	Management Ability	Crisis Management	Tech. Industry Knowledge	International Market View	Leadership & Decision-making	Legal & IP Knowledge
				40~50	51~60	61~75	0~3	3~6	6~9	9~12								
Chris Lin	R.O.C.	Male	●			●					✓	✓	✓	✓	✓	✓	✓	✓
Arnold Yu <small>Xian Hua Investment Co., Ltd. Representative</small>	R.O.C.	Male				●					✓	✓	✓	✓	✓	✓	✓	
Luke Chen <small>Linvest Wealth Corp. Representative</small>	R.O.C.	Male	●		●						✓	✓	✓	✓	✓	✓	✓	
Hung-Ju Huang <small>Linvest Fortune Corp. Representative</small>	R.O.C.	Male			●						✓		✓	✓	✓	✓	✓	✓
Ted Tsai	R.O.C.	Male				●					✓	✓	✓	✓	✓	✓	✓	
Sheng-Lin Chou	R.O.C.	Male				●		●			✓		✓	✓	✓	✓	✓	✓
John C. Lin	R.O.C.	Male		●				●			✓	✓	✓	✓	✓	✓		✓
Kathy Yang	R.O.C.	Female				●	●				✓	✓	✓	✓	✓	✓	✓	
Chen-Fu Chien	R.O.C.	Male			●		●				✓	✓	✓	✓	✓	✓	✓	

Climate Change Opportunity and Risk

Since 2022, ASPEED Technology has voluntarily adopted the proposed guidance on Task Force on Climate-related Financial Disclosures (TCFD) to identify the material risks and opportunities that climate change may cause to ASPEED Technology. In April 2023, ASPEED officially signed on as a TCFD Supporter, incorporating climate change issues into the key material issues of corporate sustainable development. In 2023, the Company further reviewed and confirmed whether there were any changes to the climate change-related risks and opportunities identified in 2022. This result was presented by the Risk Management Team to the Board of Directors in November 2023, covering the risks and opportunities associated with climate change for the year and risk management. After the identification of ASPEED Technology's climate risks and opportunities, the Company identified 3 high-risk factors and 3 high-opportunity factors based on the “possibility of occurrence” and “degree of impact” of risks or opportunities. The risk matrix and opportunity matrix are as follows:

● Climate change risk matrix



● Climate change opportunity matrix



# TCFD Integration Project & Climate Strategy

Climate Change-Related Risks and Response Actions					
Risk prioritization	Types and Factors of Risk	Risk Impact-oriented Assessment	Financial Impact-oriented Assessment	Risk Response Strategies	Time of Occurrence Assessment
1	Transition risks – market: Rising raw material costs	<ul style="list-style-type: none"> <li>· Delayed delivery of goods</li> <li>· Unstable supply</li> </ul>	Increase in production costs	<ul style="list-style-type: none"> <li>· <b>Reduce the risk of supplier disconnection:</b> Consider introducing multiple suppliers</li> <li>· <b>Enhance customer relationship maintenance:</b> Strengthen communication to enhance customers' willingness to cooperate</li> </ul>	Short-term
2	Physical risks: Extreme changes in climate patterns have led to severe disasters	<ul style="list-style-type: none"> <li>· Capacity decline</li> <li>· R&amp;D loss</li> </ul>	Increase in operating costs, decrease in revenue	<ul style="list-style-type: none"> <li>· <b>Set up an operation continuity plan:</b> Introduce remote work process and regularly conduct education and training maintain productivity</li> <li>· <b>Reduce the risk of supply chain disruption:</b> <ul style="list-style-type: none"> <li>· Optimize the supplier evaluation system</li> <li>· Capacity replacement plan</li> </ul> </li> <li>· <b>Establish a cloud backup mechanism</b></li> <li>· <b>Maintain continuous laboratory operations:</b> <ul style="list-style-type: none"> <li>· Uninterrupted power supply</li> <li>· Improve energy efficiency</li> <li>· Set up a backup laboratory</li> </ul> </li> </ul>	Medium-term
2	Transition risks – policy and legal: 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	<ul style="list-style-type: none"> <li>· <b>Keep abreast of product regulations and trends:</b> Regularly track the latest product-related regulations and trends through the taskforce for product regulations and trends in the Legal Unit</li> <li>· <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</li> </ul>	Medium-term

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



## Climate Change-Related Opportunities and Response Actions

Opportunity prioritization	Types and Factors of Opportunity	Opportunity Impact-oriented Assessment	Financial Impact-oriented Assessment	Opportunity Response Strategies	Time of Occurrence Assessment
1	<b>Products and services:</b> Developing and increasing low-carbon goods and services	<ul style="list-style-type: none"> <li>Developing low-carbon products to improve market share</li> <li>Expanding new low-carbon and green domain applications</li> </ul>	Increase in revenue	<ul style="list-style-type: none"> <li><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</li> <li><b>Develop low-carbon products to enhance competitiveness:</b> Introduce green design concepts in the R&amp;D process, continuously develop low-carbon chips, and recruit outstanding R&amp;D engineers with the concept of sustainable design</li> </ul>	Medium-term
2	<b>Products and services:</b> Changing consumer preferences	<ul style="list-style-type: none"> <li>Developing new low-carbon opportunities</li> <li>New applications developed in response to green environment</li> </ul>	Increase in revenue	<ul style="list-style-type: none"> <li><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 products align with market demands</li> <li><b>Promotion of existing products:</b> Further promote the Company's products to more application fields, and continuously explore new markets and new customer sources</li> <li><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</li> <li><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</li> </ul>	Short-term
3	<b>Resource efficiency:</b> Adopting more efficient and effective ways of working	<ul style="list-style-type: none"> <li>Operational process optimization</li> <li>Improving operational effectiveness and increasing efficiency</li> </ul>	Cost reduction	<ul style="list-style-type: none"> <li><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</li> <li><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</li> </ul>	Medium-term

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

Climate change-related metrics and targets

Climate risks	Management targets	Management metrics
Rising cost of raw materials	Enhance supplier management	Multiple supplier strategies; increase the number of back-end packaging suppliers
		Raw material inventory turnover
		Frequency of supplier evaluation; raise the threshold of supplier evaluation
	Strengthen customer relations	Enhance customer satisfaction
		Increase customer loyalty and add service items
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
	Improve the disaster response capacity of laboratories	Laboratory RTO established: Time target for disaster recovery
		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
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



# Talent Inclusion and Social Participation

## Talent Recruitment and Retention

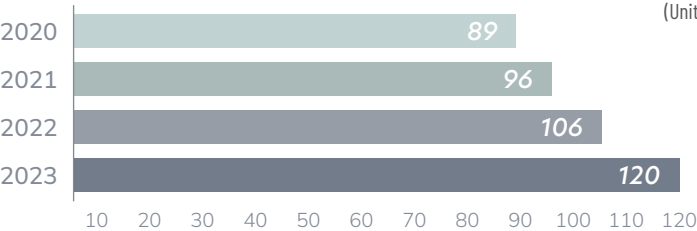
All employees of ASPEED Technology are important partners for our continuous growth. We have long been actively selecting and cultivating talents, valuing the structure and quality of manpower, and are committed to creating a happy and friendly working environment. In 2023, the turnover rate was 1.64%, hitting a record low.

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 2023, there were no violations of human rights related to employing child laborers, forced labor, infringing on employee rights, gender equality or sexual harassment.



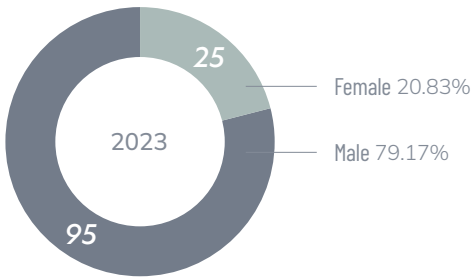
The R&D talent pool in Taiwan has long been dominated by male, and the staff composition of ASPEED Technology is also dominated by R&D staff, which is one of the factors for the higher proportion of males in the Company's internal workforce. In terms of the number of men and women in the management sales units, the ratio of men to women is 1:1, which is quite balanced. Overall, the Company recruits talents mainly based on the job nature and needs. In 2023, the number of female employees and female supervisors increased slightly compared to 2022, by 1.02 percentage points and 0.17 percentage points, respectively. ASPEED will continue its efforts to increase the number of female employees and supervisors.

● Employee Growth Trend (Unit: Number of People)

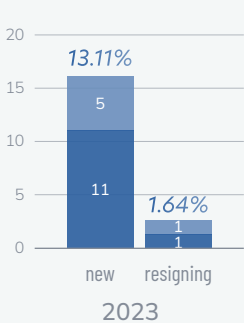


● Labor Structure

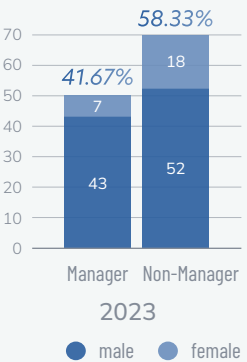
(Unit: Number of People, Percentage)



● Percentage of New Employees and Turnover



● Percentage of Employees by Position and Gender



● Gender Pay Ratio

R&D Category

Gender Pay Ratio	2021	2022	2023
High-Level Managers			
Mid-Level Managers			1:0.55
Base-Level Employees	1:0.52	1:1.23	1:0.94

Non-R&D Category

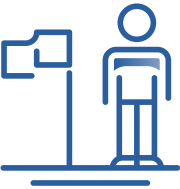
Gender Pay Ratio	2021	2022	2023
High-Level Managers			
Mid-Level Managers	1:0.91	1:0.51	1:0.84
Base-Level Employees	1:0.73	1:0.9	1:0.81



Compensation and Employee Welfare and Communication with Employees

In 2023, the total amount of employee benefit expenses incurred by ASPEED Technology amounted to NTD452 million, with employee average salary of NTD3.45 million, ranking first among TPEx Listed Companies. Higher salaries do not represent the Company's only policy approach to improving employee benefits. In the future, we will continue to work towards the provision of better all-round welfare for employees by comprehensively improving their compensation and benefits and creating a diversified and inclusive environment.

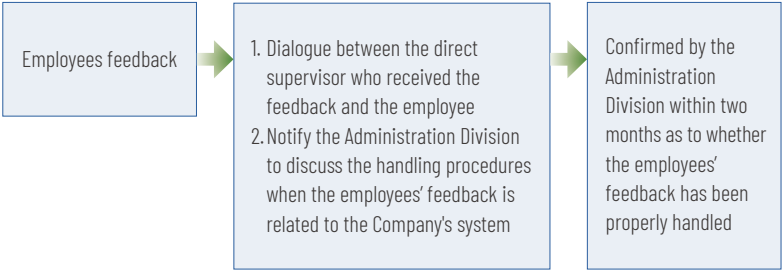
The Company's employee assessments are 100% individual-based, and employee rewards include the stipulation that at least 8% of the Company's annual profits (if any) shall be distributed to employees as a bonus, which exceeds the standard of distributing at least 1% of annual profits as bonuses that is generally followed by other companies. From 2023 onwards, the Board of Directors has resolved to adopt the issuance of "cash-settled restrictive stock units (CSU)" as the primary compensation incentive tool for senior executives. CSU have more flexibility in issuance and grant, and do not dilute shareholders' equity because cash settlement does not require actual issuance of new shares. In addition, the Company will distribute 8% of the profits as general employee performance bonus, which will be shared among all employees other than associates. The future compensation plan will further incorporate sustainability achievement indicators into the performance compensation of senior executives in the hope of encouraging and implementing company-wide efforts toward sustainable management.



The average employee training hours is 16.70 hours, including the following sustainability-related training:

- Two times a year on information security education
- Integrity and ethics, anti-corruption and whistleblower reporting system
- Climate change related issues
- Sustainable education and training for all employees

Internal handling process for employee feedback



Employee feedback channels

Channel	Content	Frequency
Digital mailbox	Any opinions or topics relating to the Company	Ad Hoc
Whistleblower system	Any opinions or topics relating to the Company	Ad Hoc
Labor-management meetings	Labor-management relations, labor conditions	Quarterly
Employee Welfare Committee	Employee welfare topics	Quarterly
Manager discussions	Work performance, goals and plans, career development	Annual
Employee satisfaction survey	Corporate environment, administrative affairs support, various welfare activities, and open questions about anything else relating to the Company	Annual
Annual prospect meeting	Company performance and communication of coming year goals employees feedbacks	Annual

# Talent Sustainability and Social Participation

## Sustainable Influence Program: Diverse Technology Talents

In 2020, ASPEED Technology set the mid-to-long-term social corporate responsibility target as “Assist higher education and strengthen the cultivation of young students.” ASPEED Technology selected the nearby National Yang Ming Chiao Tung University and National Tsing Hua University gradually invest educational resources. ASPEED Technology even formulated a Sustainable Influence Program for Diverse Technology Talents in 2022, and cooperated with the College of Education at National Tsing Hua University and National Hsinchu Girls' Senior High School to promote the “Women in Technology Cultivation Project” in 2023 to promote a series of courses and team activities for female senior high school students, hoping to address the current gender imbalance in the semiconductor technology talent market, notably that the pool of women in technology is insufficient.

In 2024, ASPEED Technology will continue to cooperate with National Tsing Hua University. In addition to the previous career exploration courses, it will further integrate with the professional R&D fields of ASPEED Technology and set up a six-week “Image Processing” theme course at Hsinchu Girls' Senior High School. In response to the product features of ASPEED Technology's Cupola360 Multi-Image Stitching Processing SoC, students can understand the concept and principle of image processing and image stitching. Through this series of activities, young female students can gradually gain a better understanding of the working environment and career planning in the technology industry, gradually breaking the stereotype that the technology industry is dominated by male engineers. Moving forward, the Company hopes to not only collaborate with a single school, but also to continue the success of this project, establish a comprehensive course curriculum, and further extend the course content to female senior high school students in different schools, thereby expanding the sustainable influence on cultivating diverse technology talents.



### Project 1 Curriculum Development for Senior High School “Inquiry and Practice” Course

**September 2023** a 6-week “Career Exploration” theme course, featuring an R&D engineer from ASPEED Technology and a legal manager with cross-disciplinary expertise in electrical engineering and law to share their career experiences. At the same time, through the examples of cross-disciplinary talents, the course illustrated the diversified demand for talents in the technology industry and encouraged students to break through their own limitations.

### Project 2 STEAM Creative Winter and Summer Camps

**January / July 2024:** cooperated with Tsing Hua University's College of Education and Science Service Club to hold a semiconductor exploration camp for senior high school students during the winter and summer holidays, providing an opportunity for more female senior high school students from different schools to understand emerging technology trends.

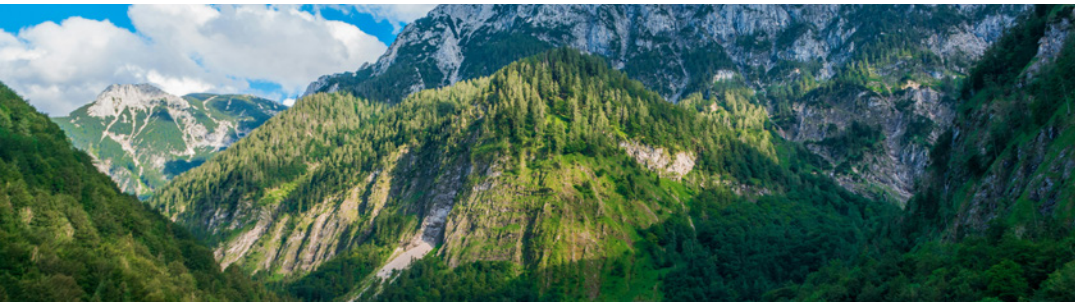
### Project 3 Development of Model Learning Programs for Outstanding Female Science and Technology Talents

**Ongoing:** ASPEED Technology and National Tsing Hua University are jointly recommending outstanding female science and technology talents, planning interviews and producing model learning videos, which are expected to be released in 2024.

# Green Operation

## Low Carbon Management Policy

- **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 comprehensive 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
  - 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 by 2050
  - Establish a low-carbon supply chain system
  - Introduce carbon management digital platform
  - Revise SBTi targets and rolling adjustments every five years



## Net Zero Targets

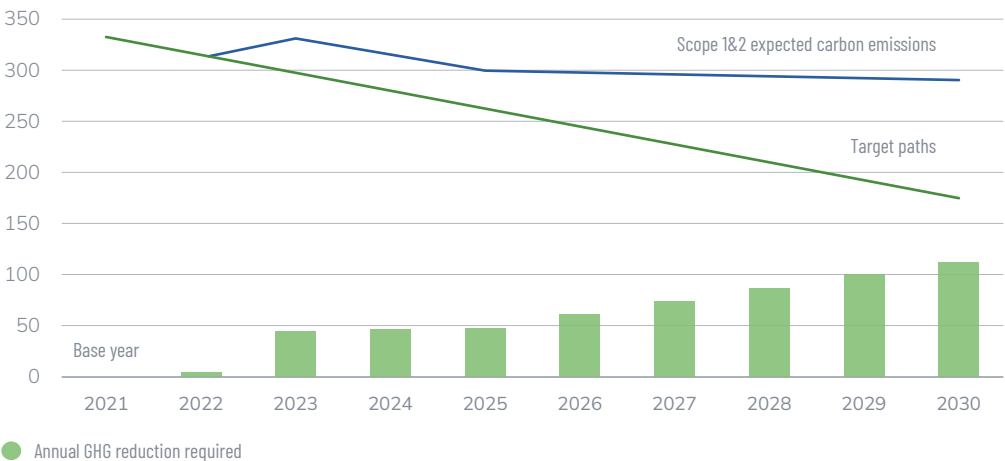
ASPEED Technology set net-zero targets and paths in response to the SBTi SME Science-Based Targets initiative, and in November 2023, the application was approved. With the short-term target is of controlling short-term warming by 1.5oC, we have committed to achieve a 42% reduction in Scope 1 and Scope 2 GHG emissions by 2030, with 2021 as the base year. At the same time, we plan to conduct a comprehensive Scope 3 inventory through GHG Protocol in the medium to long term. We promise to reduce Scope 3 GHG emissions and achieve net zero by 2050.



## Renewable Energy Procurement

ASPEED has launched a renewable energy purchase plan in 2023 and started using renewable energy in July 2024 to achieve the annual decarbonization goals. The plan is to increase the renewable energy usage rate year by year, with the goal of reaching 40% by 2030.

## ● The net-zero targets and paths set in response to the SBTi SME Science-Based Targets initiative





GHG Emissions Verification

● ASPEED's Total GHG Emissions and Intensity (Unit: tCO2e)

The calculation is for Taiwan Region, covering Taipei office and Hsinchu headquarters

Scope	2021 (Base Year)	2022	2023
Scope 1	16.369	17.3288	17.6115
Scope 2 (Location-based)	293.84	277.6634	301.3165
Scope 3	8407.79	11902.8588	4852.5393
Total emissions (Scope 1 + Scope 2 + Scope 3)	8717.99	12197.8510	5171.467
Shipment volume per million pieces	13.29	15.731	8.561
GHG emission intensity ratio	655.98	775.4021	604.0727

\* Compared to the total emissions in Scope 1 and Scope 2 in the base year 2021, there were a decrease of 4.9% in 2022 and a slightly increase of 2.8% in 2023, which should be attributed to the increase in staff resulting in an increase in the total emissions of direct emissions in Scope 1 and purchased electricity in Scope 2, while the per capita electricity consumption decreased slightly by 1.63% compared to last year

\* The purchase of renewable energy is expected to begin in 2024 to offset the carbon emissions from purchased electricity

\* The 2023 greenhouse gas results have been verified and certified in accordance with ISO14064-1:2018, and the certificate will be obtained in July



● Energy Usage and Usage Intensity

Type	Usage	Heating value (billion J)	Energy intensity (billion J /million piece)
Purchased electricity (excluded green electricity)	532,459kwh	1,917.20	223.95
Gasoline	2,001.80L	65.37	7.64
Total		1,982.57	231.59

● Total global GHG Scope 1 emissions of ASPEED in 2023 and total global GHG Scope 1 emissions from perfluorinated compounds (PFCs) of ASPEED in 2023

Disclosure content	Type of GHG	Total emission (tCO <sub>2</sub> e)	Total emission (tCO <sub>2</sub> e)
Global GHG Scope 1 Emission	CO <sub>2</sub>	5.9183	17.6115
	CH <sub>4</sub>	7.9513	
	N <sub>2</sub> O	0.1865	
	HFCs	3.5554	
	SF <sub>6</sub>	0	
	NF <sub>3</sub>	0	
	PFCs	0	0



Environmental Management

ASPEED Technology is a fabless IC design company that has passed ISO 14001 environmental management systems certification and systematically managed the Company's internal environmental protection system. The Company has implemented third-party certification ISO 14064-1:2018 to conduct greenhouse gas inventory, while striving to increase the proportion of local procurement

● Daily Water Consumption

	2021	2022	2023
Water usage (metric tons)	2.644	2.692	2.579
Water usage intensity (metric tons/million piece)	198.95	171.11	301.25

● Waste Management (Unit:Tons)

2021	2022	2023
0.0363	0.1134	0.0966

● Local Procurement Amount and Ratio (Unit: NTD100 million, Percentage)

Category	2021		2022		2023	
	Amount	%	Amount	%	Amount	%
Domestic	23.04	91.72%	30.23	90.54%	20.84	89.17%
International	2.08	8.28%	3.16	9.46%	2.53	10.83%
Total	25.12	100%	33.39	100%	23.37	100%

2023 Achievements

- 0 complaints and penalties related to environmental issues
- 100% legal compliance: Adhered to all regulations, including air, water, waste, energy, management, noise, RoHS, Reach and HF
- Saved 1,706 pieces of A4 paper in digital transformation
- Continue to implement ISO 14001:2015 environmental management systems and establish related environmental management procedures

Key locations of operation	Type	Purchase amount	Local purchase amount	Local procurement ratio
Taiwan	Raw Material Purchase	10.72	9.17	85.54%
	General	12.66	11.68	92.26%

# Appendix-

## Stakeholder Engagement



ASPEED -  
Whistleblowing Website

Stakeholder Category	Engagement	2023 Communication Results	Topics of Concern
<b>Customers</b> Have 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> <li>ASPEED Technology Whistleblower Reporting System: ASPEED - Whistleblowing Website (aspeedtech.com)</li> </ul>	<ul style="list-style-type: none"> <li>Customer satisfaction rate of 96.67%</li> <li>28.57% of domestic and international customers provide written feedback</li> <li>No customer complaints were issued to our customer service team in 2023</li> <li>Public responses to sustainable management issues raised by customers including CDP, RBA, green product, and conflict minerals, response rate 100%</li> <li>No feedback was issued to the Whistleblower Reporting System in 2023</li> </ul>	<ul style="list-style-type: none"> <li>Information security and privacy</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 (annually)</li> <li>Expressing opinions at the end of the year (annually)</li> <li>One-on-one discussions (ad hoc)</li> <li>ASPEED Technology Whistleblower Reporting System: ASPEED - Whistleblowing Website (aspeedtech.com)</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 113 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>No employee reporting was issued to the Whistleblower Reporting System in 2023</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 2023</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> 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>Social participation and public welfare activities (ad hoc)</li> <li>ASPEED Technology Whistleblower Reporting System: ASPEED - Whistleblowing Website (aspeedtech.com)</li> </ul>	<ul style="list-style-type: none"> <li>Communicate and visit cooperative partners irregularly</li> <li>Invitation to annual events</li> <li>No cooperative partners reporting was issued to the Whistleblower Reporting System in 2023</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>

Stakeholder Category	Engagement	2023 Communication Results	Topics of Concern
<b>Media</b> Reports and assessments impact 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> <li>ASPEED Technology Whistleblower Reporting System: ASPEED - Whistleblowing Website (aspeedtech.com)</li> </ul>	<ul style="list-style-type: none"> <li>In 2023, senior management gave one joint interview following media request and several telephone interviews</li> <li>Issued press releases to announce major news</li> <li>One public media release event</li> <li>No media reporting was issued to the Whistleblower Reporting System in 2023</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>
<b>Shareholders/Investors</b> Influence 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> <li>ASPEED Technology Whistleblower Reporting System: ASPEED - Whistleblowing Website (aspeedtech.com)</li> </ul>	<ul style="list-style-type: none"> <li>In 2023, 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. 338 phone/physical meetings in total during 2023</li> <li>No shareholders/investors reporting was issued to the Whistleblower Reporting System in 2023</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>Risk management</li> <li>Operational achievements and financial performance</li> </ul>
<b>Suppliers</b> Provide 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> <li>ASPEED Technology Whistleblower Reporting System: ASPEED - Whistleblowing Website (aspeedtech.com)</li> </ul>	<ul style="list-style-type: none"> <li>Held critical supplier meetings</li> <li>Held one supplier exchange meeting</li> <li>Completed audits and evaluations of six critical suppliers</li> <li>Critical supplier's ESG commitment response rate 83%</li> <li>No supplier reporting was issued to the Whistleblower Reporting System in 2023</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> We actively interact 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: csr@aspeedtech.com</li> <li>Social participation and public welfare activities (ad hoc)</li> <li>ASPEED Technology Whistleblower Reporting System: ASPEED - Whistleblowing Website (aspeedtech.com)</li> </ul>	<ul style="list-style-type: none"> <li>Accumulated contributions through 2023 were NTD17.0404 million</li> <li>Rural underprivileged caring: <ul style="list-style-type: none"> <li>For an eighth 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 19,536 copies of periodicals benefiting over 14,000 teachers and students at 84 schools in 17 townships 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 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 budget of NTD11.52 million, continuously sponsoring six professors in the two universities</li> </ul> </li> <li>No public welfare organizations/academic organizations reporting was issued to the Whistleblower Reporting System in 2023</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- Material Sustainability Topics and Objectives

Material Topics	Identified Impact Result	2023 Key Achievements	2024 Short-Term Objectives
Intellectual Property Rights Protection and Deployment	Negative impact Positive impact	<ul style="list-style-type: none"> <li>· Successfully received 5 patents in Taiwan, 7 patents in the United States</li> <li>· The number of global patent grants increased significantly by 100% compared to the previous year</li> <li>· Established a trade secret registration system with a Green Proposals Incentive Mechanism</li> <li>· Applied for 11 sustainability-related trade secrets, representing 52.38% of the total</li> <li>· 10 training sessions on intellectual property rights for R&amp;D related employees</li> </ul>	<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>· Continue to strengthen education and training on intellectual property rights</li> </ul>
Operational performance and financial performance	Negative impact Positive impact	<ul style="list-style-type: none"> <li>· Annual revenue of NTD3.111 billion and net profit after tax of NTD1.007 billion, maintaining profitability for 19 years since inception</li> <li>· Complete product diversification - dual product line development axis</li> </ul>	<ul style="list-style-type: none"> <li>· Continue to maintain profitability every year</li> <li>· Complete the development of dual product lines and improve the product portfolio, and increase the content value per server of ASPEED's IC products</li> </ul>
Product Quality and Customer Service	Positive impact	<ul style="list-style-type: none"> <li>· Passed the ISO 9001:2015 Quality Certification</li> <li>· After rebuilding the digital transformation process, the production management and quality control related working hours were effectively saved by 2,891 hours</li> <li>· Customer satisfaction rate reached 96.67%</li> <li>· 100% compliance with international regulations and customer requirements: Air, water, waste, energy management, noise, RoHS, REACH, HF</li> <li>· Electronic digital system and optimization of ERP system</li> <li>· 100% signing of corporate social responsibility pledge with customers</li> </ul>	<ul style="list-style-type: none"> <li>· Consistently maintain a customer satisfaction rate of over 90%</li> <li>· 100% response rate to key customer questionnaires</li> <li>· Conduct the second phase of digital transformation, strengthen electronic processes and BI statistical data analysis</li> </ul>
Technological and R&D Innovations	Positive impact	<ul style="list-style-type: none"> <li>· R&amp;D fees amounted to NTD671 million in 2023, accounting for 21.57% of revenue, the highest in the past five years</li> <li>· Compared to the previous generation, the 8<sup>th</sup> generation of AST2700 BMC SoC saved 43.07% of power consumption to achieve the same performance and saved up to 96.14% of power consumption compared to the first generation</li> <li>· Based on the annual shipment volume of AST2600 BMC SoC, 55,116.51 metric tons of carbon dioxide emissions were saved, which is equivalent to the annual carbon absorptency of 64,350 acres of U.S. forests</li> <li>· The Cupola360 camera solution effectively reduces the total carbon emissions from business visits by 168 metric tons of carbon dioxide emissions/quarter</li> <li>· 63.39% of chip surface laser printing shipments</li> <li>· Number of sustainability-related applications in the trade secret registration system reached 11</li> </ul>	<ul style="list-style-type: none"> <li>· Continue to raise the investment of R&amp;D fees</li> <li>· Continue to consider green R&amp;D of products from hardware and software</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>· Develop new product applications with the goal of green energy saving</li> </ul>
Employee Care	Positive impact	<ul style="list-style-type: none"> <li>· The average employee salary is NTD 3.45 million, ranking first among TWSE listed companies</li> <li>· The total amount of employee welfare expenses was NTD 452 million</li> <li>· Added painless gastrointestinal examination to the health checkups for employees aged 50 or above</li> <li>· Expanded domestic and international travel subsidies to include immediate family members up to the third degree of kinship</li> </ul>	<ul style="list-style-type: none"> <li>· Continue to raise the average salary level of all employees</li> <li>· Enhance employee benefits</li> </ul>

## Appendix- SASB Index

No.	Category	Code	Accounting Metric	Unit of Measure	Data	2023 ESG report Corresponding Chapter
1	Quantitative	TC-SC-110a.1	① Gross global Scope 1 emissions ② Amount of total emissions from perfluorinated compounds	Metric tons (t) CO <sub>2</sub> e	1. Global Scope 1 emissions in 2023 amounted to 17,6115 metric tons of carbon dioxide equivalent 2. 2 Total emissions of fluorinated compounds in 2023 were 0	7.2 Environmental and GHG Management
2	Qualitative	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	ASPEED Technology follows the SBTi pathway, committing in 2023 to a near-term 1.5°C target with 2021 as the baseline year, setting an absolute reduction of 42% in Scope 1 and 2 emissions by 2030, and planning medium-to-long-term expansion to Scope 3 inventory and reduction. In 2023, the renewable energy purchase plan was initiated, with the use of renewable energy starting in May 2024. The expected renewable energy usage will reach 15% to meet the annual carbon reduction target. With plans to increase the usage rate annually, ASPEED Technology aims for a renewable energy usage rate of 40% by 2030	7.1 Low Carbon Management and Net Zero Goal
3	Quantitative	TC-SC-130a.1	① Total energy consumed ② Percentage grid electricity and ③ Percentage renewable	Gigajoules (GJ) Percentage (%)	1. 1,982.57 2. 100 % 3. 0 %	7.2 Environmental and GHG 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 meters (m <sup>3</sup> ) Percentage (%)	1. 2,579 m <sup>3</sup> (Total water withdrawn); 0% in regions with High or Extremely High Baseline Water Stress 2. 2,579m <sup>3</sup> (Total water consumed); 0% in regions with High or Extremely High Baseline Water Stress	7.2 Environmental and GHG Management
5	Quantitative	TC-SC-150a.1	Amount of hazardous waste from manufacturing, percentage recycled	Metric tons (t) Percentage (%)	No hazardous waste in 2023	7.2 Environmental and GHG Management
6	Qualitative	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	6.3 Employee Care

No.	Category	Code	Accounting Metric	Unit of Measure	Data	2023 ESG report Corresponding Chapter
					<p>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</p> <p>3. The company will increase the frequency of cleaning and disinfection in office areas depending on the actual situation or the presence of epidemics and infectious diseases, and will adjust response measures on a rolling basis</p>	
7	Quantitative	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	Reporting currency	None in 2023	6.3 Employee Care
8	Quantitative	TC-SC-330a.1	<p>① foreign nationals and</p> <p>② located offshore</p>	Percentage (%)	0	6.1 Talent Diversity and inclusion
9	Quantitative	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	Percentage (%)	0	5.6 Product Quality and Customer Service
10	Quantitative	TC-SC-410a.2	<p>Processor energy efficiency at a system-level for:</p> <p>① servers</p> <p>② desktops</p> <p>③ laptops</p>	(MIPS/W)	<p>2,381 (AST2600)</p> <p>1,652 (AST2500A2-GP)</p> <p>1,357 (AST2520A2-GP)</p> <p>580 (AST2400A1-GP)</p> <p>1,149 (PILOT 4)</p> <p>1,652 (AST1520A1-GP)</p>	4.1 Sustainable Operation and Green R&D of Products
11	Qualitative	TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	NA	None in 2023	5.7 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 2023	5.1 Corporate Governance and Ethical Corporate Management
13	Quantitative	TC-SC-000.A	Total production	Thousand pieces	8561	5.2 Operational Performance and Financial 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 and Financial Performance



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