GIGABYTE™

2021 GIGABYTE Sustainability Report

GIGABYTE™

GIGABYTE 2021 Sustainability Report

CONTENTS

About the Report 2
From the Chairman 3
Sustainability Highlights and Awards 4
Responding to Emerging Risks – COVID-19 Epidemic Prevention Management 6
Explanation of Major Events in 2021 8
Overview of GIGABYTE 9

Chapter I Sustainable Development Commitment and Communication 12
1.1 Sustainable Development Promotion Goal and Strategy 12
1.1.1 SDGs X CSR Strategy Map 12
1.1.2 Stakeholder Communication and Engagement 16
1.1.3 Identification of Material Topics 18
1.1.4 Material Topics and Impact Boundaries 19
1.2 Organization for Promoting Sustainable Development 21

Chapter II Sustainable Governance 22
2.1 Integrity Management and Legal and Regulation Compliance 23
2.2 Corporate Governance 23
2.2.1 Board of Directors and Management Team 24
2.2.2 Internal Audit 25
2.3 Risk Management 25
2.4 Innovation Management 27

Chapter III Green Production 28
3.1 Environmental Management 29
3.1.1 Environmental Management Performance 29
3.1.2 Sustainability Fund and Reduction Reward Program 32
3.2 Climate Change Mitigation and Adaptation 33
3.2.1 Climate Governance Organization 33
3.2.2 Climate Risk Assessment and Management Strategy 34
3.2.3 Identification of Climate-related Risks and Opportunities 37
3.2.4 Greenhouse Gas Inventory and Reduction Performance 39
3.3 Responsible Production 40
3.3.1 Friendly Product 40
3.3.2 Circular Economy 42

Chapter IV Partnership Management 44
4.1 Sustainable Supply Chain 45
4.1.1 Overview of Supply Chain 45
4.1.2 Supply Chain Risk Management 45
4.1.3 Conflict Minerals Management 47
4.1.4 Supply Chain Engagement and Communication 48
4.2 Customer Relations Management 51
4.3 Co-Creation of Value with Value Chain Partnerships 52

Chapter V Happy Workplace 53
5.1 Human Resource Management and Talent Cultivation 54
5.1.1 Sound Human Resource Structure 54
5.1.2 Talents Recruitment and Retention Management 55
5.2 Human Rights and Labor Relations Management 60
5.3 Occupational Health and Safety 61
5.3.1 Environmental Safety and Health 61
5.3.2 Healthy and LOHAS Workplace 65

Chapter VI Social Common Good 70
6.1 Social Caring and Technology Education 71
6.2 Cultivation of Sustainability Thinking and Environmental Care 73
6.2.1 Deep Cultivation of Sustainability Thinking in Workplace 73
6.2.2 Environmental Care Practice 74

Appendix 75
Appendix I. Sustainability Performance Summary in the Past 5 Years 75
Appendix II. GRI Content Index 76
Appendix III. SASB Index 79
Appendix IV. TCFD Index 80
Corrigendum of 2020 CSR Report 80

About the Report

Reporting Boundaries

This report covers the sustainability activities and performance of GIGABYTE's global operational locations from January 1 to December 31 in 2021, including the Headquarters, Taoyuan Nanping Factory, China Dongguan Factory, China Ningbo Factory (named GIGABYTE below) and influential subsidiaries in Taiwan (G-STYLE LTD, GIGAIPC CO., LTD, and Bestyield International). It is different from the scope of the financial annual report.

The financial data validation disclosed in the report is from the consolidated financial report information of GIGABYTE and its subsidiaries (for detailed disclosing scope please refer to 2021 GIGABYTE Annual Report).The organizational GHG emission inventory and reduction data encompasses the Headquarters, Taoyuan Nanping Factory, China Dongguan Factory, China Ningbo Factory, as well as the subsidiaries Bestyield International and G-STYLE (Taipei Silicon Valley Office). The disclosure scopes of other sustainability indicators will be described.

Reporting Principles and Reference Guiding

This report has been prepared in accordance with the latest GRI Standards and the Corporate Social Responsibility Best-Practice Principles for TWSE/GTSM Listed Companies. The report also takes reference from international guidelines such as the UN Sustainable Development Goals, Task Force on Climate-related Disclosures (TCFD) framework, and Sustainability Accounting Standards Board (SASB) Standards to compile and disclose GIGABYTE's corporate sustainability commitments, strategies and implementation outcomes for the reporting period.

Issue

The Sustainability Report is uploaded to GIGABYTE Sustainability website every year. Key extracts from the report are also published on each webpage. The latest sustainability news are published through the corporate website as well. We invite all stakeholders that take an interest in GIGABYTE to use all the different channels available to learn about our efforts and accomplishments in sustainability.

Issue time: September 2022
Last Issue time: September 2021
Next issue time: Scheduled in September 2023

Data Quality Management

- Financial Data: Referred to the financial report certified by the PwC Taiwan
- Organizational greenhouse gas inventory (ISO 14064-1: 2018): SGS Taiwan
- Quality Management (ISO 9001: 2015): SGS Taiwan
- Environment Management (ISO 14001: 2015): SGS Taiwan
- Work Safety and Health Management (ISO 45001: 2018): SGS Taiwan

Feedback

If you have any question or suggestion for the contents of the report, please feel free to contact us. Thanks.

Ms. Lu of GIGABYTE Sustainable Development Office
Address: No. 6, Baoqiang Rd., Xindian Dist., New Taipei City 231
Phone: +886-2-89124000 ext. 3023 Fax: +886-2-89124005
e-mail: CSR@gigabyte.com

Allege Use of Picture from UN's Sustainable Development Goals

Pictures of the UN's Sustainable Development Goals used in the report are downloaded from the publicizing materials of UN's Sustainable Development website.

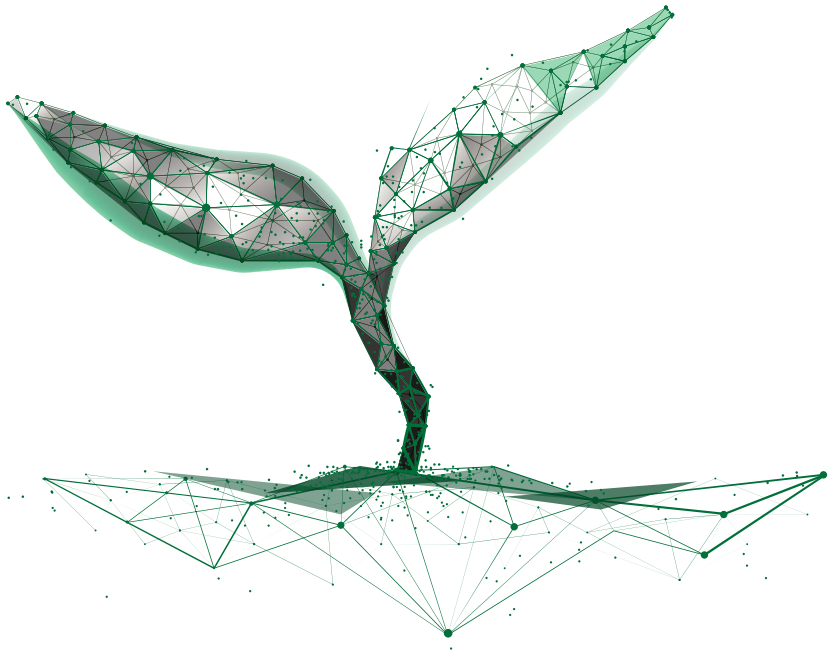
From the Chairman

At GIGABYTE, we have always embraced our mission of "Upgrade Your Life" by growing our core business through innovation and supplying distinguished products as well as intelligent solutions in diverse fields; we work closely with customers and supply chain partners to co-create a sustainable value chain; we promote an inclusive workplace, look after the health and safety of our employees, and give back to society in support of the UN Sustainable Development Goals.

Despite having to deal with factors such as the restructuring of the global supply chain, the COVID-19 pandemic, international trade conflicts, and a highly volatile market in the last two years, GIGABYTE recorded profit growth by staying true to our philosophy, working together as a team, and leveraging our strength from years of sustainable operations. We are also continuing to expand our capabilities in cutting-edge fields such as AI, 5G and cloud services.

Our pursuit of economic performance and technological achievement does not mean GIGABYTE has forgotten our corporate responsibility to the environment and society. To reduce the environmental impact of our operations, we set ourselves the strategic challenge of a 50% reduction in carbon emissions by 2025; at the same time, carrying out internal competitions, rewards and activities to encourage employees to think about sustainability in their everyday work. Continued improvements to our welfare policy and health support served to provide employees with a happy and safe workplace; above all, we are working to expand our influence in society and promote a harmonious, inclusive society by connecting our many partners with social welfare projects.

We have never wavered on our journey to sustainability. In the future, we will set our sights on the four sustainability visions of "Zero Waste, Zero Pollution", "Transition to Low-carbon Technology", "Leader of Sustainability and Circular Economy", and "Realization of Humanistic Values". We hope to join forces with our upstream and downstream partners in embracing ethical governance, environmental friendliness, and social care. We will continue to respond to topics stakeholders are concerned with concern so that we can do our part for the world and create positive values!



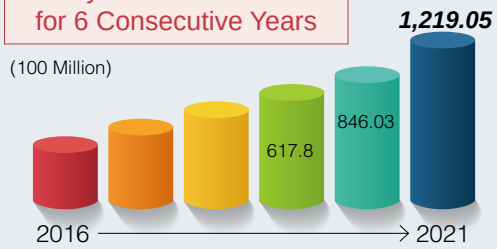
Chairman

Sustainability Highlights and Awards

Corporate Governance Aspect

Consolidated revenue was **NTD 121.905 billion**, increasing by **44.09%** compared to last year

Steady Growth in Revenue for 6 Consecutive Years



Obtained **150** patents in 2021 year

Cumulatively **2,545** patents obtained to date

Cumulatively received **15,667** evaluations and awards to date

Hosted **170** sessions of ethical management and anti-corruption training with **3,077** participants

Environmental Aspect

Non-Stop Climate Action

Adopted forest land in Pinglin and mobilized value chain partners to plant trees in person to practice ecological conservation

Cumulatively planted **14,399** trees in Taiwan/**89,399** trees world-wide

Continuously executing the Sustainability Fund program. In 2021, the total reduced emissions by proposals were **956** tonnes, bringing cumulative emissions reduction to **4,474** tonnes

13,318 hours of environmental education in the year

Electronic waste recycle services reduced electronic waste by **675.1 tonnes**

Connect Climate Targets with the World

Introduced TCFD framework and SBT tools

Scored **A- (Leadership)** in CDP Climate Change evaluation and **A-** in supplier engagement rating

Target to cut 50% of carbon emissions by 2025 since 2009, and had reached **38.85%** in 2021

Social Aspect

Corporate volunteers:

Thousand Mile Trek - Go Green Taiwan round-island and trash-picking project

Accumulative distance **999.04** km
Service hours **29,153** hours
Removed trash **12,326.05** kg

Continue to Strength Social Influence

Additional **NTD 3,000**/month in childcare subsidy and up to 2 hours of flex-time

Organized the **Joint Waste- and Dollar-Free Flea Market** to partner with employees, communities, and NGOs to reuse **1,787.43** kg of goods

Hosted 5 types of technology education
A total of **174** sessions held with **4,811** participants

Supported **NTD 4.8 million** in group buys directly from small farmers in the year

Sustainability Awards

Annual Global Views CSR Survey
Top 6 in Electronics and Technology Industry
(be nominated for 6 consecutive years)
Top 8 in Social Innovation Action Plan

CDP
DISCLOSURE INSIGHT ACTION

A- (Leadership) in 2021 CDP Climate Change
(achieved a rating of Management or higher for 6 consecutive years)

BS 8001
Circular Economy Standard Certification

Outstanding Brand

2021 Best Taiwan Global Brands
Brand value of US$75 million

台灣精品
TAIWAN EXCELLENCE

5 products recognized a
30th Taiwan Excellence Awards

reddot design award
product design

9 products received
the Reddot Design Award

1 product received
CES 2022 Innovation Award

COMPUTEX
TAIPEI

4 products received
2021 COMPUTEX Design & Innovation Award

Social Care and Happy Enterprise

Flu Vaccination Friendly and Healthy Workplace Certification - Silver Award in Epidemic Prevention Leadership

Excellent Organization in Performance of Blood Donation awarded by Ministry of Health and Welfare (awarded for 6 consecutive years)

Responding to Emerging Risks – COVID-19 Epidemic Prevention Management

GIGABYTE makes continuity of operations and safeguarding of employee health our top priority during the ongoing COVID-19 pandemic. We monitored the latest pandemic development so that the most effective response measures can be adopted in a prudent and flexible manner. In addition to assessing our financial, operational, and information security risks, we also strove to protect employees' peace of mind at work. These included maintaining annual salary adjustments for all employees and providing more COVID-19 vaccination leave than required by law. We also issued epidemic prevention subsidies that employees could use to support farmers and disadvantaged groups impacted by the pandemic. The pandemic is not yet over so GIGABYTE hopes to keep expanding our social welfare efforts and contributions to society. GIGABYTE epidemic prevention measures and accomplishments are as follows:

Employee Care and Safety

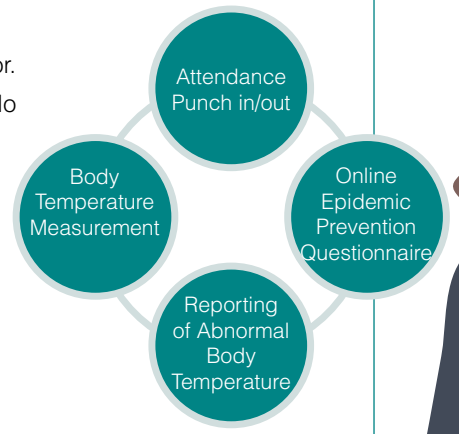
"GIGABYTE Epidemic Command Center" was established in January 2020 to track the latest local and international development of COVID-19 pandemic as well as make rolling adjustments to epidemic prevention management measures.

Epidemic Prevention Measures in Support of Government Policy

- Employees are encouraged to receive COVID-19 vaccine by providing 2 days of paid vaccination leave for 1st and 2nd dose (1 day for booster shot). This is better than statutory requirements, and will not affect attendance and performance evaluation.
- Employees with children receiving COVID-19 vaccination may also apply for epidemic prevention care leave.

Safe Workplace

- Each operational sites are regularly and thoroughly disinfected and disinfectant is provided on every floor.
- Epidemic prevention mechanisms are introduced to public areas, the fitness center and elevators. No visitors or vendors are allowed to enter the building during the peak period of the pandemic.
- When necessary, implement a split working mechanism and two third of employees work from home.



Management of Epidemic Prevention Materials

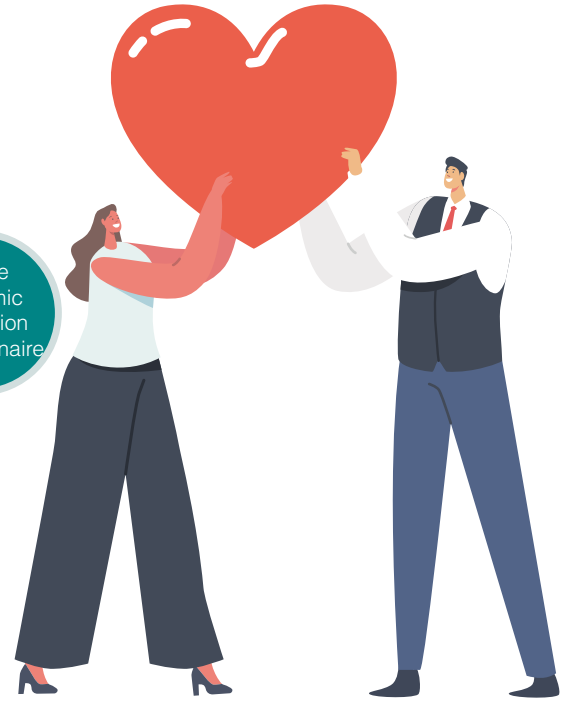
- Purchase blood oxygen meters and rapid antigen test (RAT) kits to safeguard employee health.
- "Epidemic prevention packs" are provided to employees on business trips.
- Install infra-red temperature monitors and automatic alcohol disinfectant dispensers.
- Purchase alcohol and have issued 393,765 surgical face masks to employees.

Epidemic Prevention Recognition System

- Developed the "contactless questionnaire system with facial recognition and body temperature measurement" that integrates 4 key functions in February 2020 to prevent contact transmission.

Internal Education to Strengthen Epidemic Prevention Awareness

- Issued an employee epidemic prevention handbook and guidelines for business trips; sent EDM about epidemic prevention and health education along with the latest epidemic prevention policies as well as the track of confirmed cases nearby the offices.



Risk Prevention and Continuity of Value Chain

Financial Risk

National central banks all adopted loose monetary policies and expansionary fiscal policies to counter the impacts of COVID-19. These resulted in high inflation and other problems that indirectly pushed up interest rate and exchange rate risks.

Preventive Measures

Set Medium and long-term plans for company funds along with foreign currency hedging and purchase of property insurance policies.

Operational Risk

International shortages of cargo workers and congested logistics increased the cost of shipping products .

Preventive Measures

Keep close contact with each warehouse and devise optimized transport plans based on the conditions at ports and warehouses.

Information Security Risk

Remote access by employees working from home increased the risk of confidential information leaks and e-mail fraud.

Preventive Measures

Implement minimum permissions management for VPN, multi-factor authentication, data loss prevention (DLP) and social engineering attack exercises.

Continuity of Value Chain

Nearly 95% of GIGABYTE products are exported so mature remote customer relations management and online communication systems are already in place. We have kept communicating with customers during the pandemic. GIGABYTE conducted supplier epidemic prevention surveys and offered the "Guide for Business Continuity" to stabilize the supply chain and assist with supplier response capabilities.

Support to Epidemic Prevention

Medical Support

- Donated "Mobile Sampling Booth" to the Yang Ming, Cheng Hsin and Shuang Ho hospitals, "Epidemic Prevention Disinfection Door" to National Taiwan University Hospital Hsinchu Branch, and 2,000 protective suits to Wanfang Hospital to improve protection for medical workers at front lines.
- Donated "Contactless Smart Epidemic Prevention Kiosk" to Taipei City Hospital, which integrates AI, cloud data, and sensor technologies to provide the public with safe and convenient smart epidemic prevention services.

Donations In Kind

- To address the needs of working from home and distancing learning, GIGABYTE partnered with Bestyield International to donate 22 refurbished notebooks to the police office in Wenshan Second Precinct and disadvantaged schools.
- Donated 50 notebooks to elementary and junior high schools in Zhunan Township and Miaoli County to help students keep learning during the pandemic.

Emergency Relief

- Emergency assistance was provided to farmers in Kaohsiung during the pandemic to help them ship their orders on time
- Raised welfare points and issued epidemic prevent subsidies to employees so they can support disadvantaged groups impacted by the pandemic by consuming their products.

Explanation of Major Events in 2021

Two events of major concern to stakeholders occurred at GIGABYTE in 2021. For the sake of balanced reporting, the details of the two events and the follow-up responding and management actions are provided below.

Response to MIT Incident

In May 2021, the following text appeared on the GIGABYTE website: "Made-in-Taiwan and strict quality control which is different from other Brands that find OEMs in China with lower cost and quality". The resultant backlash led to GIGABYTE products being pulled down from shelves by Chinese e-retailers such as JD and Tmall.

▶ Management Mechanism and Responding Measure

GIGABYTE has a variety of product types, including motherboards, graphics cards, notebooks, and computer peripherals. We have two important manufacturing factories in China which have supported GIGABYTE to produce and provide quality products and consumer experiences to the world for a long time.

The incident was the result of flawed internal management and marketing strategy. GIGABYTE will therefore continue to strengthen internal employee management and training. Because the incident severely impacted the company, Mr. Dandy Yeh resigned from the Chairman of G-Style, a GIGABYTE subsidiary. The personnel responsible for this incident violated work rules and caused significant damages to company. Thus GIGABYTE terminated the employment relationships in accordance with the Labor Standards Act.

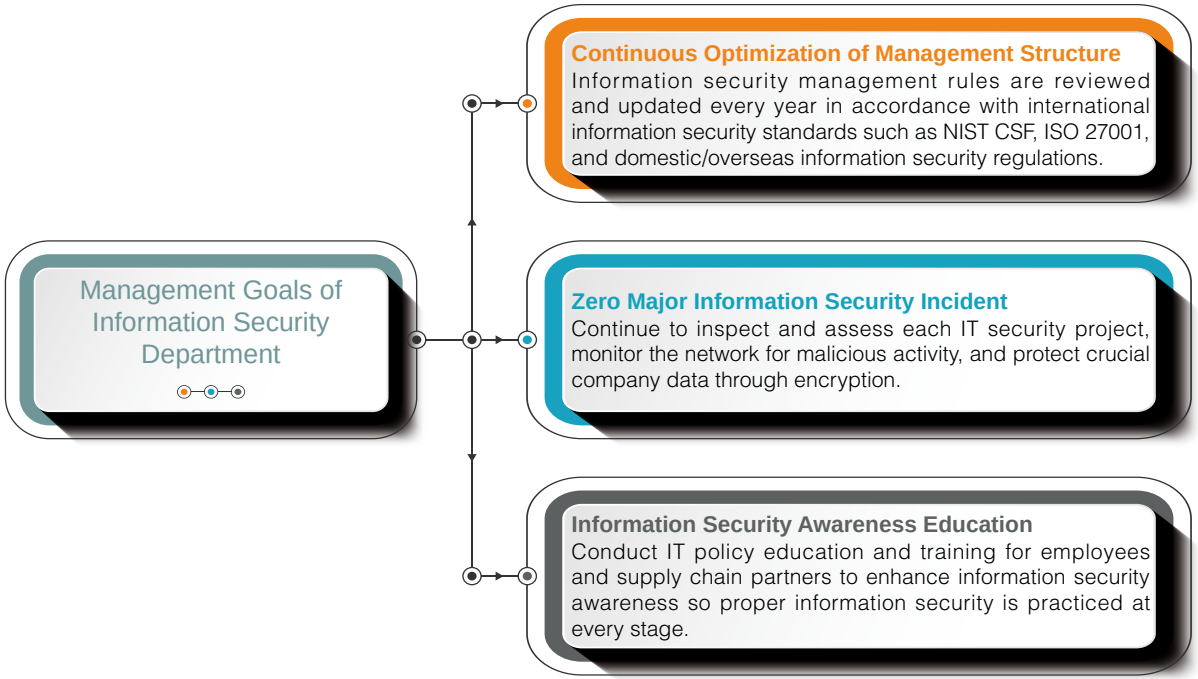
Response to Cyberattack Incident

In August 2021, GIGABYTE detected anomalies in system services and an investigation revealed that some servers had been compromised by hacker attacks. Ransomware installed by the hacker led to the encryption of some company files but our production, sales, and routine operations were not affected.

▶ Management Mechanism and Responding Measures

When the hacker attack was confirmed, information security defenses and audits were immediately activated by GIGABYTE. We also worked with external IT security experts to deal with this attack against partial servers. The relevant law enforcement and cybersecurity agencies were also notified and kept updated on the network anomalies we detected.

Information security is now a risk that no enterprises around the world can ignore. As a result of the incident, we thoroughly reviewed and upgraded the existing management structure and targets. The network security level was also strengthened to ensure the security and integrity of our data and prevent any further recurrence.



Overview of GIGABYTE

Material Topics of This Chapter	Financial Performance
Management Approach	Be responsible for shareholders, and take into consideration environmental and social aspects for financial performance.
Policy and Action	▪ Hold regular Shareholders' Meetings and Institutional Investor Conference to provide transparent information. ▪ Establish and improve the internal audit system and appoint accountants to ensure the proper use of the Company's financial resources. ▪ Track industry trends to ensure that product research and development is advancing with the times.
Vision and Goals	▪ Maintain stable profitability, strengthen sufficient capital for Company operations and innovation. ▪ Actively research and develop new products, explore new fields, expand product lines and market positioning.
2021 Major Achievement	[●] The revenue has grown for 6 consecutive years. The revenue in 2021 increased by 44.09% compared with the previous year [●] Continued to develop emerging technologies and services of servers, autotronics, AI and edge computing in order to expand the markets for intelligent solutions and reverse logistic services.

[●] Stage objectives completed [●] In progress [○] Not yet implemented [●] Incomplete objective

GIGABYTE was founded in 1986. "Upgrade Your Life" has always been the mission and goal of GIGABYTE. We strongly believe that continued progress depends on the continuous creation of new value – and quality can only be realized through the pursuit of perfection.

As a leading global technology brand, GIGABYTE drew on more than three decades of R&D experience in motherboards and PCs to expand into new fields and craft solutions to meet industry requirements. We have more than twenty years of experience in server development and the cloud industry that align with the latest and most important technology trends today such as AI, edge computing and data centers. GIGABYTE is now making great strides towards cloud and 5G with our customers to explore the unlimited possibility of technology. (For more smart technology applications please refer to GIGABYTE INDUSTRY)

◆ GIGABYTE Profile

Listing	First listed on the Taiwan Stock Exchange on September 24, 1998 (Stock Code 2376)
Company Name	GIGA-BYTE Technology Co., Ltd.
Capital	NTD 6.36 billions
Number of Employees	7,026 employees worldwide
Date of Establishment	April 1986
Manufacturing Factory	Taiwan Taoyuan Nanping Factory, China Dongguan Factory, China Ningbo Factory
Operating Headquarters	No.6, Baoqiang Rd., Xindian Dist., New Taipei City
Operating Locations	Taiwan, China, America, Europe, Asia, and other regions of the world
Key Products and Services	Motherboards, graphics cards, AORUS Tactical Gaming range, AERO series products for content creators, BRIX Ultra compact computers, computer peripherals, high performance servers
	Reverse logistic solutions, smart application solutions
Chairman	Yeh, Pei-Chen
General Manager	Lee, E-Tay

Thanks to active and effective integration of strengths and resources from each department, GIGABYTE has now developed many innovative, high-tech products such as our data center offering better energy efficiency, lower power consumption, and thus less GHG emissions. These more eco-friendly, secure and high-performance cloud communications products provided to public sector, private sector, and even individual users help reduce unnecessary waste of resources and also encourage the industry to adopt a wider range of environmental initiatives. In terms of consumer electronic products, GIGABYTE's AERO series of content creator notebooks and the AORUS premium e-sports brand not only provide users with a great sensory experience but also facilitate the formation of sustainable supply chains by upstream/downstream suppliers.

We do believe that technological progress should not be an excuse to waste resources and that we should live in harmony with nature. The subsidiary Bestyield International, founded in

2018, had obtained BS 8001 circular economy standard certification in 2020. Following that, in 2021, GIGABYTE moved onto even more advanced sustainability projects such as adoption of Dayuan Beach in Taoyuan and mobilizing "Reduction. Sharing. Love the Earth" Alliance members for joint coastal clean-ups. These initiatives fulfilled our commitment to consumers on sustainability and mission of protecting the environment.

Membership of Associations

GIGABYTE is an active participant in many international organizations. We are a Supporting Organization of the Open Infrastructure Foundation, and a founding member of MLCommons. We invest in the development of open-source architectures and data sets so that organizations all around the world can have equal access to key technologies. We also hope to recruit more technical experts from around the world and contribute what we learned to the common knowledge platform shared by all mankind.

GIGABYTE also plays an active role in important domestic industry associations, including Taiwan Electrical and Electronic Manufacturers' Association (TEEMA), Taipei Computer Association (TCA), and Taiwan Excellent Brand Association, and actively participates in the events held by the associations. GIGABYTE has been a partner in the Trans-Action Award for 8 consecutive years and strives to cultivate talented individuals for the industry.

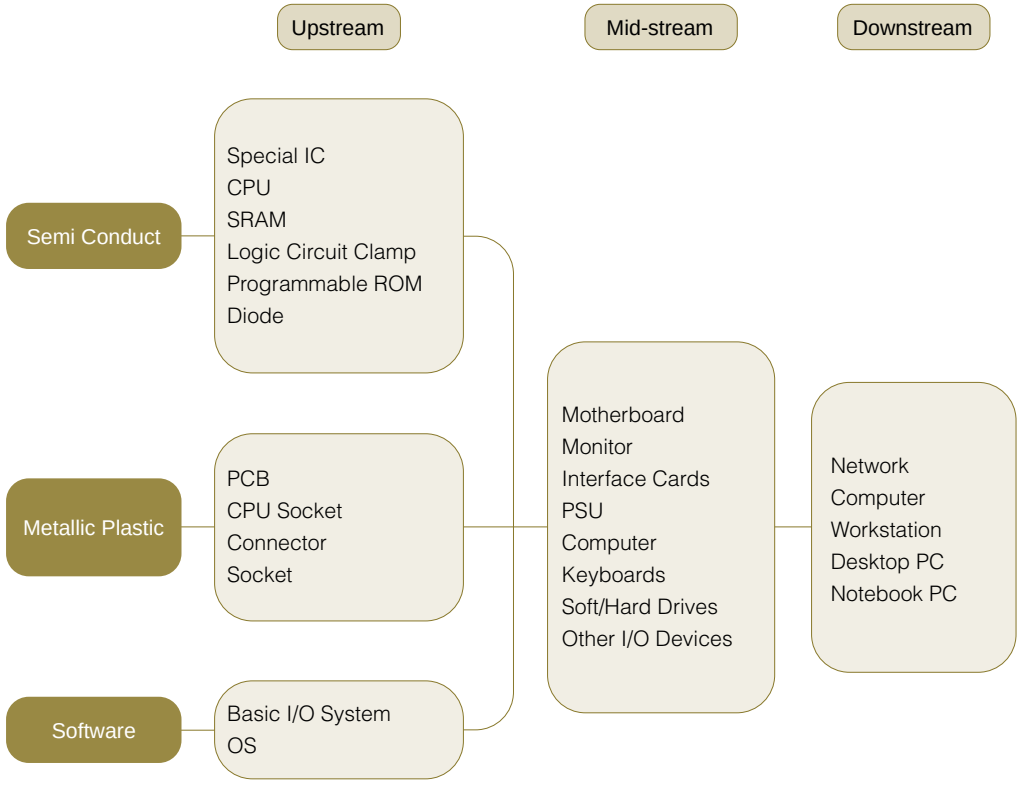
In addition to technological developments, GIGABYTE joins the New Taipei City Disaster Prevention Association and helps organize community disaster preventions, takes part in the CDP, and voluntarily complies with the Responsible Business Alliance (RBA) Code of Conduct and the Task Force on Climate-related Disclosure (TCFD) framework. These standards are used by GIGABYTE for the transparent disclosure and reporting of our efforts in social and environmental responsibility.

Industry Overview and Business Performance

Overview of the Industry

The COVID-19 pandemic raged on in 2021 causing disruptions to the semiconductor and server component supply chain. Market demand for 5G and AI remained strong, and this coupled with the rise of tele-education and working online from home as part of the epidemic prevention lifestyle meant demand in the server, PC, and peripherals markets still exceeds supply. The popularity of e-gaming products continued unabated as well with the associated software and competitions forming a complete industry eco-system. The stand-out success of work-related products led to GIGABYTE's strong promotion of creator notebooks. We expect creator notebooks to form into their own independent industry eco-system and become a growth driver of motherboard, graphics card, notebook and peripheral products. To meet the surge in server demand, GIGABYTE continues to expand the application market for autonomous driving, 5G edge computing, transportation, and artificial intelligence (AI) in keeping with the spirit of continuous innovation. In addition to maintaining our technology and product advantages in the legacy server and X86 architecture, we also focus on the development and introduction of new servers based on a new structure (e.g. CPU+GPU+DPU), ARM64 architecture products, as well as liquid cooling and immersion cooling technologies to provide customers a more diverse, high-performance and eco-friendly carbon reduction solution.

◆ Upstream and Downstream Linkages of Key Products



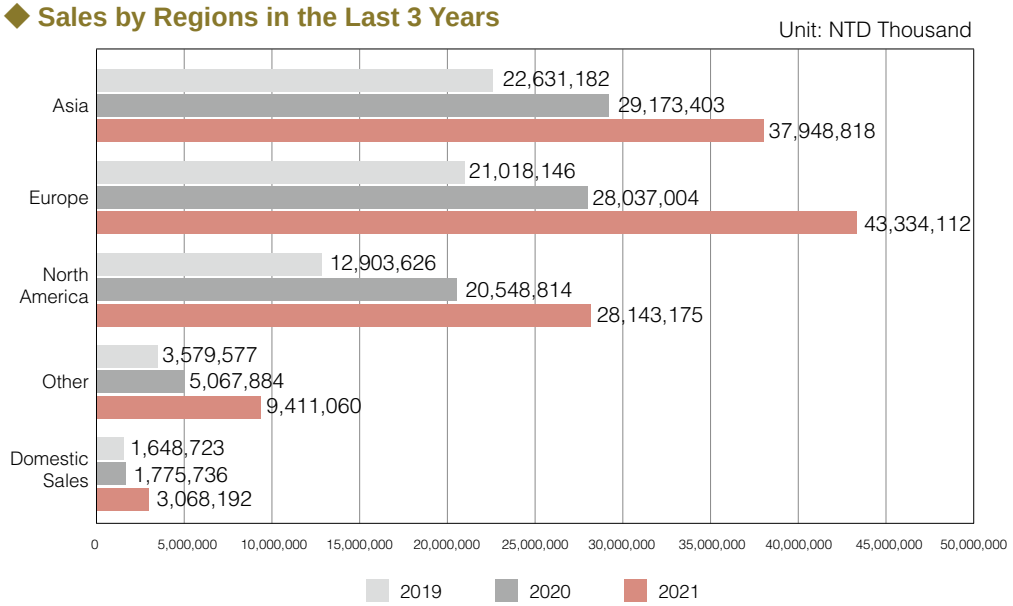
Generation and Distribution of Direct Economic Value over the Last 3 years

Unit: NTD Thousand

Operational Performance	2019	2020	2021
Generation of Direct Economic Value			
Operating Income	61,781,254	84,602,841	121,905,357
Generation of Direct Economic Value			
Operating Cost	52,190,385	70,138,404	92,315,325
Employee Salary and Benefits	3,269,995	4,688,799	10,670,727
Payments to Investors	1,908,810	1,398,516	2,542,756
Income Tax	355,705	1,119,570	2,778,226
Retained Economic Value	4,056,359	7,257,549	13,598,323

Sales by Regions in the Last 3 Years

Unit: NTD Thousand



Production Output and Value in the Last 3 Years

Unit: 1000 pcs, NTD Million

Key Products	2019		2020		2021	
	Output	Value	Output	Value	Output	Value
Motherboards and Graphics Cards	14,492	40,061	18,990	55,328	17,630	63,641
Other	694	15,877	1,630	12,895	3,646	32,216
Total	15,186	55,938	20,620	68,223	21,277	95,856

1 Sustainable Development Commitment and Communication

1.1 Sustainable Development Promotion Goal and Strategy

1.1.1 SDGs X CSR Strategy Map

GIGABYTE adopted "Upgrade Your Life" as our core philosophy and hopes to apply our expertise in technology to bring a better life for all humanity. Even as we seek to expand on our market accomplishments, we know that sustainability is now a topic that no business can afford to ignore. We therefore look at our current business operations and the degree of stakeholder concern to arrive at four sustainability visions: "Zero Waste, Zero Pollution," "Transition to Low-Carbon Technology," "Leader of Sustainability and Circular Economy," and "Realization of Humanistic Values." These serve as our long-term goals in sustainable development and give shape to the value we expect to create – reduction in operational footprint, building of innovation strength, establishment of a friendly brand, and creation of shared value. These four responding strategies to economic value and ESG form a complete sustainability roadmap.

In 2015, the United Nations established 17 sustainable development goals that drew up a clear roadmap to sustainability for governments, businesses, non-profit organizations, and individuals. GIGABYTE adopted the methodology developed by SDG Compass to identify 6 high-priority goals and 2 voluntary targets most closely aligned with our core abilities. The core spirit of each goal was then incorporated into the 4 visions of our CSR strategy map, and the guiding principles were adjusted accordingly to ensure that every sustainability action was connected to the global consensus for co-prosperity.

Zero Waste & Zero Pollution x Transition to Low-carbon Technology x Leader of Sustainability and Circular Economy x Realization of Humanistic Values

We consider the Sustainability Report to be an effective method for reviewing the performance of our operational strategy and use it to determine whether the sustainability practices of GIGABYTE contribute to the realization of our sustainability vision. Each chapter in this report therefore corresponds to the operating strategy for a core direction in the CSR roadmap, and all effort is made to provide stakeholders with clear, accurate and comparable information.

※Click on an operating strategy to review the corresponding chapter on GIGABYTE's sustainability initiatives

CSR Strategy in Practice - Green Action Plan

The "Green Action Plan" was developed by GIGABYTE as our response to the three aspects of ESG and to realize our four sustainability visions. A target time frame divided into three phases was drawn up in 2009 based around the core philosophy of "Start from the Heart." A sustainable governance policy was created through the defining of standards and organizational behaviors; our operational environmental impact are reduced through the installation of a sustainable eco-roof, the development of low-carbon products, and promotion of packaging reductions; we cultivated sustainability awareness among employees through green activities such as seminars, environmental volunteer services and the Sustainability Fund. As 2nd Phase of the GIGABYTE Green Action Plan draws to a close in 2021, we will continue to launch a variety of projects in response to the goal of "friendly and highly-efficient social enterprise" to create sustainability influence.

		Phase 1 2016~2018		Phase 2 2019~2021	Phase 3 2022~
		2009~2015 Green Action Plan	2016 Green Action Plan 2.0		
Zero Waste Zero Pollution	Greenhouse Gas Inventory and Reduction	Started annual GHG reduction inventory certified by a third-party.	Reached the emission target ahead of schedule in 2017, so reset a new target of reducing 50% of emissions by 2030 compared to the base year 2009.	Advanced the target year of emission reduction target by 5 years to cutting 50% of emissions by 2025 compared to the base year 2009. Emissions reduction: ↓ 38.85% compared to 2009	▪ Reduce carbon emissions by 50% in 2025 compared to 2009. ▪ Reduce waste generation by 50% in 2030 compared to 2010. ▪ Reduce water use by 20% in 2030 compared to 2010. ▪ Non-use of disposable packaging from 2030 ▪ Products contain no hazardous substances and have low impacts on the environment and human health.
	Environmental Impact from Operation	▪ Conducted GHG inventory in accordance with ISO 14064 and tracked water use and waste generation by each operating base. ▪ Enforced GIGABYTE Hazardous Chemical Substances Regulations (HCSR).	▪ Drew up the 333 Reduction Plan in 2015 to cut carbon emissions, water, and waste by 3% every year. ▪ Promoted a plastic reduction plan at the staff canteen of the Headquarters to progressively prohibit disposable straws and cutlery.	▪ Continued to incorporate new requirements from international chemical regulations and updated HCSR to version 4.7. ▪ Launched packaging reduction plan to reduce use of disposable materials Waste reduction: ↓ 1.54% compared to 2010 Water reduction: ↓ 33.56% compared to 2010 Hazardous substances excessing standards: 0 sample in 2021	
	Thousand Mile Trek – Go Green Taiwan	Founded the GIGABYTE Go Green Club in 2015 and launched the Thousand Mile Trek – Go Green Taiwan project.	Organized 3-4 trips every year and reinforced internal promotion so that the employees could attach importance to environmental protection after took actions personally.	▪ Expanded social influence by partnering with youths from universities on environmental protection initiatives. ▪ Invited retired employees back to the environmental services to enrich their retirement and build cross-generational friendships. Trekked distance: 999.04 km Removed trash: 12,326.05 kg	
Transition to Low-Carbon Technology	Climate Governance	Participated in the CDP requested by customers and responded to the climate change questionnaire.	Responded to the supply chain module of CDP, and was scored B (management level) between 2016 and 2018.	▪ Introduced TCFD framework and SBTi guides to re-map the emission reduction pathway align with international consensus and complete climate governance strategy and risk management measures. ▪ Continued to participate in CDP and improve existing carbon management measures according to the result of evaluation every year. Scored A- (leadership level) in 2021 CDP Climate Change and had been surpassing the management level for 6 consecutive years	▪ GIGABYTE's carbon reduction targets meet the standard of Science-Based Targets (SBT). ▪ Product environmental reports are published promptly for mainstream products. ▪ Strengthening internal innovation to achieve low-carbon technology transition, which then, in turn, contributes to the Company's environmental performance.
	Environmental Impact of Products		Issued product environmental reports to disclose products' impacts on climate change, PM2.5, and land/water acidification through their life cycles.	▪ Following the first revision in 2019, the report was revised again in 2020. Consolidate management measures from each stage in the product life cycle were provided to disclose more complete information. ▪ The database for product carbon footprint analysis was updated to the latest data provided by suppliers. Published product environmental reports: 58	
	Sustainability Fund			Launched the 6-year "Reduction Reward Program" to inspire internal innovation on sustainability and find reduction hot spots by means of proposal evaluation and reduction competitions between factories. Accumulative proposals: 162 Estimated reduction performance: please refer to 3.1.2 Sustainability Fund and Reduction Reward Program	
	Cultivation of sustainability awareness among employees	▪ Hosted celebrity lectures regularly with professional speakers introducing sustainable development from a variety of perspectives such as food, ecology, health, and enterprise management. ▪ Organized "working holidays" where employees could learn about the importance of ecological conservation through services and environmental education in the local community. ▪ Sent educational articles responding to World Environment Day to make employees understand the world trend and how they could make contributions at an individual level.		Continue to share articles on sustainability, and increase the diversity of internal activities, such as long-term adoption of coastal areas, waste-free flea market, Sustainability Fund, and tree-planting by executive managers. Sustainability and environmental education hours: 87,727 hours	

		Phase 1 2016~2018		Phase 2 2019~2021	Phase 3 2022~
		2009~2015 Green Action Plan	2016 Green Action Plan 2.0		
Leader of Sustainability and Circular Economy	Reduction. Sharing. Love the Earth Alliance	▪ Created a green cloud platform to lay the foundations for sustainable supply chain management. ▪ Implemented 4 zero-tolerance guidelines for suppliers to enforce labor human rights protection.	▪ Initiated the "Reduction. Sharing. Love the Earth Alliance" to encourage supplier partners to value and practice sustainable development. ▪ Held supplier conferences to share sustainability trends and strengthen links beyond business relations.	▪ Continue to promote the Alliance and track the reduction performance of Alliance partners; host supplier conferences to share international trends and sustainability information ▪ A new tiered supplier management system was activated in 2021 to incorporate ESG assessment into procurement decisions Total alliance members: 113 companies Total tree-planting partners: 69 companies	Continue to share articles on sustainability, and increase the diversity of internal activities, such as long-term adoption of coastal areas, waste-free flea market, Sustainability Fund, and tree-planting by executive managers. Sustainability and environmental education hours:87,727 hours
	Circular Economy Business Model	▪ Focused on after-sales service and repair yields to extend product lifetime and fulfill manufacturer responsibility ▪ Set up recycling sites in each country to provide consumers with a convenient collection of e-waste. ▪ Provided recycling services for electronic products regardless of brand at all customer service centers in Taiwan. ▪ Founded Bestyield International in 2018 to focus on integrated reverse logistics services.		▪ Initiated the "Rent instead of Buy" business model to ensure 100% product recovery. ▪ Introduced resale of refurbished products and developed the out-of-season market to reduce wasted resources. ▪ Launched the Refurbished Product Certification and manufacturer warranty to enhance consumers' trust in the second-hand market and activated transactions. Up to 116,000 products were refurbished in the past 3 years Obtain BS 8001 Circular Economy certification	
Realization of Humanistic Values	Happy Workplace	Set up comprehensive software and hardware services, provide benefits and stipends, subsidized employee clubs, and emphasized the balanced development of employees' work, family, and life.	▪ Obtained Sporting Enterprise Certification by the Sport Administration and promoted healthy diets and regular exercise. ▪ Implemented health exams that exceeded statutory requirements and progressively enforced tracking of the employees who did not take health exams.	▪ Set up a tiered management plan for employee health risk and provided employees classified as high-risk level with subsidies for further medical treatment. ▪ Increased welfare points, provided parental subsidies, and distribute epidemic prevention stipends. ▪ Implemented disaster prevention drills, improved the working environment, strengthened EAP functions to spare no effort to protect employees' physical/mental health and safety. Please refer Chapter 5 Happy Workplace for detailed outcomes	▪ Listen intently to employee needs to build a truly inclusive and equitable happy workplace. ▪ Serve as the advocate and practitioner of sustainable eco-roof philosophy to promote urban habitability and ecological inclusion. ▪ Implement climate education to cultivate climate citizenship among the next generation. ▪ Use corporate philanthropy as the basis for enlarging digital inclusion and youth empowerment. ▪ Expanding digital inclusion and empowering youths
	G-Home GIGABYTE Sustainability Eco-Rooftop	Constructed GIGABYTE G-Home Sustainable Eco-rooftop as an environmental-friendly building.	▪ Introduced Social Return on Investment (SROI) tool to quantify benefits of G-HOME. ▪ Obtained Environmental Education Facility and Field Certification by EPA and offered 2 environmental education courses.	Continued to organize and refine environmental education courses while actively reaching out to the industry, government, and academia to expand the influence of roof greening. Accumulative visitors: 3,317 Accumulative visiting groups: 425	
	Tree Planting x Community Ecological Education		Partnered with the Plant-for-the-Planet Foundation from Germany, committed to planting 75,000 trees and holding 5 sessions of Plant-for-the-Planet Academies in Taiwan, and in the meanwhile supported the cultivation of climate justice ambassadors in developing countries.	▪ Adopted afforestation lands in Pinglin and mobilized employees, supplier partners and customers to plant trees in person for cultivating ecological conservation and awareness ▪ Hosted 5 Plant-for-the-Planet Academies in Taiwan and cultivated climate justice ambassadors and university volunteers ▪ Developed and implemented sustainability and climate education courses for elementary schools. Cumulative Trees planted: 89,399 Climate justice ambassadors trained: 1,367 Sustainability and climate education at elementary schools: 92 people	
	Digital Inclusion and Equitable Society	Continued to promote the Secret to Computers, Bring Technology to Campus, and G-Design Contest to cultivate students' interest in computers and hands-on experience.	▪ The Digital Love was renamed GIGABYTE Senior Academy in 2017 and its target learners expanded from seniors and housewives to foreign spouses and adults with rare illnesses. ▪ Opened smartphone classes to help the disadvantaged connect with the latest technologies.	▪ Launched the "Computer Doctor" course to reveal the secrets of waste electronics reclamation from a circular economy perspective. ▪ Set up Fun Play with IoT Summer Camp that introduces children to the design thinking process and trains their problem-solving skills. Technology education: 69,923 participants G-Design Contest hosted for 19 consecutive years	

1.1.2 Stakeholder Communication and Engagement

GIGABYTE knows that sustainability cannot be achieved overnight. In addition to factors such as company operations and the market environment, we must also pay attention to stakeholder opinions and feedback. For this reason, we actively respond to topics of stakeholder concern in order to maximize the sustainability value. The AA1000 Stakeholder Engagement Standard was used as a guide for internal team discussions by the Sustainable Development Office to identify seven key stakeholders, namely: Employees, Investors, Customers, Suppliers, Communities/Non-profit-Organizations/Schools, Government, and the Media. Appropriate methods of communication were devised for each stakeholder based on their particular attributes. Relevant information was also provided in a timely manner in accordance with domestic and overseas trends in sustainability topics to ensure a transparent and accurate response to all groups affected by GIGABYTE operations.

Stakeholder	Concerned Material Issues	Communication Channel and Frequency		Corresponding Chapter
Employee	▪ Code of Ethics and Conduct ▪ Occupational health and safety ▪ Talent cultivation and retention ▪ Labor relations ▪ Human rights, equality, and diversity	Regular	▪ Labor-management meetings/Occupational health and safety committee ▪ Employee satisfaction survey	Chapter 2 Sustainability Governance Chapter 5 Happy Workplace
		Ad hoc	▪ Departmental work meetings ▪ Education and training/Practice drill ▪ Employee Assistance Plan (EAP) ▪ Events and seminars ▪ Internal/external website announcements and e-newsletters	
Investor	▪ Financial performance ▪ Code of ethics and conduct ▪ Corporate governance ▪ Legal and regulation compliance ▪ Risk management ▪ Innovation management ▪ Information security management	Regular	▪ Annual shareholders' meeting and annual report ▪ Participation in Corporate Governance Evaluation ▪ Publication of sustainability reports	Overview of GIGABYTE Chapter 2 Sustainability Governance
		Ad hoc	▪ Communication meeting and investor conference ▪ Publication of information on The Market Observation Post System or GIGABYTE official website	
Customer	▪ Risk management ▪ Customer relations management ▪ Information security management ▪ Climate change and carbon management ▪ Responsible production and consumption ▪ Circular economy ▪ Supplier sustainability management	Regular	▪ Annual customer satisfaction survey ▪ Annual response to the CDP questionnaire	Chapter 2 Sustainability Governance Chapter 3 Green Production Chapter 4 Partnership Management
		Ad hoc	▪ Audit and requirements from customers ▪ Customer technical conferences ▪ Online support system and platform	

Stakeholder	Concerned Material Issues	Communication Channel and Frequency		Corresponding Chapter
Supplier	▪ Code of ethics and conduct ▪ Corporate governance ▪ Climate change and carbon management ▪ Hazardous substance management ▪ Circular economy ▪ Sustainable supply chain management ▪ Conflict minerals	Regular	▪ Regular supplier audit/sustainability evaluation ▪ Annual supplier conference ▪ Conflict minerals investigation	Chapter 2 Sustainability Governance Chapter 3 Green Production Chapter 4 Partnership Management
		Ad hoc	▪ Business review meeting ▪ Explanation of environmental safety and health as well as CSR ▪ Updating and publication of GIGABYTE "Hazardous Chemical Substance Regulations (HCSR)"	
Community / Non-profit Organization / School	▪ Ecological conservation ▪ Talent cultivation and retention ▪ Social engagement and technology care ▪ Sustainability and environmental education	Regular	▪ Hosting of technology competition or talent development class ▪ Co-organizing of environmental and technological education activities ▪ Participation in Corporate Disaster Prevention Association of New Taipei City ▪ Participation in related organizations and forums ▪ Inviting communities and NGOs to participate in activities	Chapter 3 Green Production Chapter 5 Happy Workplace Chapter 6 Social Inclusion
Government	▪ Corporate governance ▪ Legal and regulation compliance ▪ Risk management ▪ Climate change and carbon management ▪ Labor relations	Ad hoc	▪ Official correspondence ▪ Participation in meetings ▪ Participation in industry and government activities ▪ Support of policy initiatives with the core corporate capabilities	Publish sustainability reports and provide regulators with accurate and complete non-financial disclosure.
Media	▪ Company's operating performance ▪ Company's sustainability initiatives	Ad hoc	▪ Press conference ▪ Press release ▪ Interview ▪ Topical reporting	Publish sustainability reports and provide media partners with accurate and complete non-financial disclosure.

1.1.3 Identification of Material Topics

Sustainability topics are periodically updated by GIGABYTE based on international sustainability guidelines and trends, business goals, benchmark enterprises, and material topics in the industry. We identified a total of 27 material topics in 2021. Once the stakeholder groups have been ascertained we use questionnaire surveys to collect their opinions. The respondents' degree of concern on each topic as well as perceived impact on the economy, environment, society and human rights were then used to draw the Material Topics Matrix. In 2021, we picked out 8 highly material topics for priority in disclosure. The corresponding management policies and initiatives were also disclosed in the report. Appropriate disclosure is also provided for the remaining 12 moderately material topics based on the degree of stakeholder concern and impact on operations. Changes from last year included the downgrading of "Financial Performance", "Innovation Management", "Circular Economy", and "Labor Relations" from highly material to moderately material topics.

Identification Process of Material Topics

IDENTIFY	Perform identification based on GRI Standards, ISO26000 Guidance on Social Responsibility, the corporate vision and the Codes of Conduct, the UN Global Compact, the issues to be communicated with stakeholders, the SDGs, and the latest domestic and international trends and affairs.	27 Sustainability Issues
ANALYSIS	Conduct questionnaire surveys on internal seminars, supplier tree-planting events, G-HOME environmental education, and the CSR website to ensure the accurate sorting of material topics.	216 Questionnaire Responses
CONFIRM	Integrate and analyze the material topics concerned by the stakeholders, and assess the impact of material topics on the economy, environment, society and human rights. The Sustainable Development Office makes final confirmation of the correctness and completeness of matrix analysis.	8 Highly Material Topics 12 Moderately Material Topics
EXAMINE	The Report editorial team regularly examines and evaluates the appropriateness of material topics and, if necessary, immediately amend the identification process of material topics and stakeholders.	

2021 GIGABYTE Material Topics Matrix

Highly Material Topics

01 Moral integrity and code of conduct
02 Corporate governance
03 Legal and regulation compliance
04 Risk management
05 Sustainable supply chain management
06 Climate change and carbon management
07 Responsible production and consumption
08 Occupational health and safety

Moderately Material Topics

09 Financial performance
10 Brand management
1 1 Customer relationship management
12 Information security management
13 Innovation management
14 Hazardous substance management
15 Pollution prevention
16 Circular economy
17 Talent cultivation and retention
18 Labor relations
19 Conflict minerals
20 Human rights, equity, and diversity

Low Material Topics

21 Stakeholder communication and complaint processing
22 Environmental policy and management system
23 Energy management
24 Ecological conservation
25 Water resource management
26 Social engagement and technology care
27 Sustainability and environmental education

1.1.4 Material Topics and Impact Boundaries

To help stakeholders understand more about the impacts of each material topic on the company, the overall value chains, environment, and society, a matrix table is elaborated to present the direct impacts and indirect impacts each material topic may cause.

[●] Direct Impact: The topic has a direct impact on the Boundary.

[○] Indirect Impact: The topic has an indirect impact on the Boundary, or is related to the Boundary because of commercial activities.

Material Topics		Internal Boundary	External Boundary				Corresponding GRI Topic	Corresponding Chapter
		GIGABYTE and Subsidiaries	Supply Chain	Customers/ Consumers	Environment	Society		
Highly Material Topics	Moral integrity and code of conduct	●	○	●		○	Anti-corruption (205) Anti-competitive behavior (206)	2.1 Ethical Management and Compliance
	Corporate governance	●	○	○			General Disclosures (102)	2.2 Corporate Governance
	Legal and regulation compliance	●	○	○	●	●	Environmental compliance (307) Socioeconomic compliance (419)	2.1 Ethical Management and Compliance
	Risk management	●	●	●	●	○	General Disclosures (102)	2.3 Risk Management
	Sustainable supply chain management	●	●	○	○	○	Procurement practices (204) Supplier environmental assessment (308) Supplier social assessment (414)	Chapter 4 Partnership Management
	Climate change and carbon management	●	○	○	●	○	Emissions (305)	3.2 Climate Change Mitigation and Adaptation
	Responsible production and consumption	●	●	●	●		Materials (301) Waste (306)	3.3 Responsible Production
	Occupational health and safety	●					Occupational health and safety (403)	5.3.1 Environmental Health and Safety

Material Topics		Internal Boundary	External Boundary				Corresponding GRI Topic	Corresponding Chapter
		GIGABYTE and Subsidiaries	Supply Chain	Customers/ Consumers	Environment	Society		
Moderately Material Topics	Financial Performance	●					Economic Performance (201)	Overview of GIGABYTE
	Brand management	●	○	○			General Disclosures (102)	Overview of GIGABYTE
	Customer relationship management	●	○	●			Customer health and safety (416) Marketing and labeling (417)	4.2 Customer Relations Management
	Information security management	●	●	●			No applicable GRI topic	2.3 Risk Management
	Innovation management	●	○	●	○	○	No applicable GRI topic	2.4 Innovation Management
	Hazardous substance management	●	●	○	●		No applicable GRI topic	3.3.1 Friendly Product
	Pollution prevention	●	○	○	●		Waste (306)	Chapter 3 Green Production
	Circular economy	●	○	○	●		No applicable GRI topic	3.3 Responsible Production
	Talent cultivation and retention	●				○	Training and education (404)	5.1 Human Resource Management and Talent Cultivation
	Labor relations	●					Employment（401） Labor-management relations (402)	5.2 Human Rights and Labor Relations Management
	Conflict minerals	●	●			○	No applicable GRI topic	4.1.3 Conflict Minerals Management
	Human rights, equality, and diversity	●	○			○	Human rights assessment (412)	5.2 Human Rights and Labor Relations Management

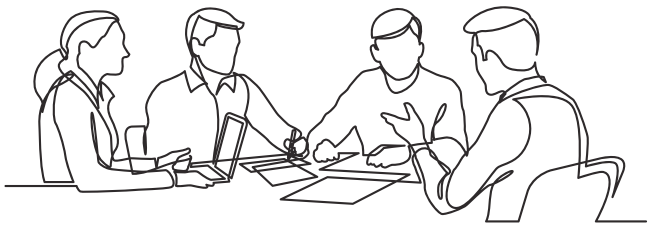
1.2 Organization for Promoting Sustainable Development

The "GIGABYTE Green Sustainable Development Committee" is the main decision-making and operational organization on the promotion of sustainable development affairs in GIGABYTE. The Chairman, Pei-Chen Yeh, serves as the chairperson, and the Director of the Sustainable Development Office serves as the convener. Representatives from each BU, site, and subsidiary are requested to join in monthly meetings. Each representative reports the current status or trend of sustainability issues, environmental issues, and product regulations, and proposes responding strategies in order to help the Company timely adjust the internal policy and keep up with the global tendency.

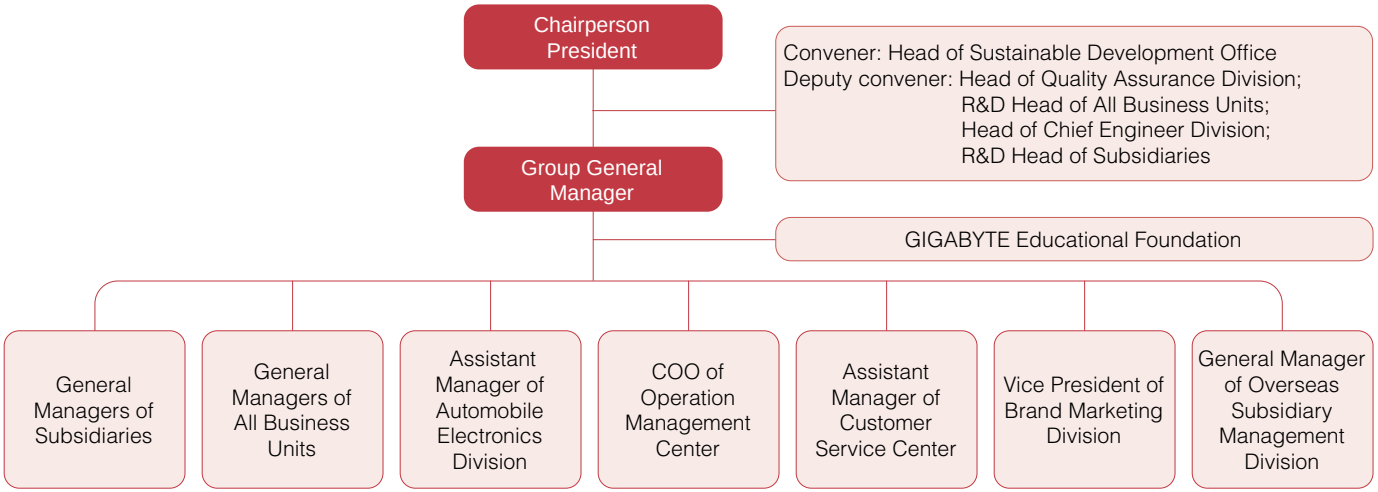
Agenda and conclusions of monthly meetings are periodically reported by to the President Office during GIGABYTE central meetings. The yearly outcomes of implemented sustainable development actions as well as an executive plan for the next year are also reported to the board of directors for the purpose of effectively integrating the corporate governance policies with sustainable development trends. We hope that GIGABYTE can always lead the way in implementing corporate sustainable development.

2021 Committee Focus

The CSR Committee tracks and reviews product regulations on chemicals and hazardous substances every year. Besides, the heads of each BU also report on important policies and reforms related to sustainability as well as the performance and accomplishments of their sustainability projects to ensure that GIGABYTE can respond in advance to changing trends and adjust our strategy and direction when necessary.



◆ GIGABYTE Green Sustainable Development Committee



- Update the standards for organizational greenhouse gas inventory to ISO14064: 2018
- Update hazardous substance regulations such as REACH and RoHS directive
- Update GIGABYTE Hazardous Chemical Substance Regulations (HCSR) to version 4.7

- Examine outcomes of "Reduction. Sharing. Love the Earth Alliance"
- Examine outcomes of sustainable supply chain management
- Update the qualified supplier standards and introduce new tiered supplier management system
- Product and Purchased Material Packaging Reduction Plan
- Supplier conflict minerals investigation

2 Sustainable Governance

2.1 Integrity Management and Legal and Regulation Compliance 2.2 Corporate Governance 2.3 Risk Management 2.4 Innovation Management

Material Topics of This Chapter	Moral Integrity and Code of Conduct	Legal and Regulation Compliance	Corporate Governance	Risk Management	Information Security Management	Innovation Management
Management Approach	Construct an effective corporate governance structure and complete education and training system, and be capable of fulfilling responsibility on sustainable governance with the principle of honesty and integrity.			Construct an effective risk management mechanism to reduce operational impacts and maintain operational stability.	Enforce corporate information security governance, and promote the planning, supervision and execution of information security management	Connect with technological trends, maintain innovation energy, and retain corporate competitiveness
Policy and Action	Establish the "Code of Business Conduct", "CSR Best-Practice Principles", "Employee Ethical Code of Conduct", "Procedural Rules of Board of Directors", "Corporate Governance Best-Practice Principles", "Operating Procedures of Internal Material Information Process", and publicly commit to complying with the Responsible Business Alliance (RBA) since 2011.			Establish the Global Operations and Risk Management Center to control the risks on trading, production and sales, and formulate the "Regulations for Group Confidential Information Management", "Regulations for Personal Data Protection and Management", and other relevant internal rules.	▪ Establish the Information Security Committee to periodically report to the Group President on information security management practices and outcomes. ▪ Review and revise internal management regulations in accordance with domestic/overseas information security regulations and standards (e.g. NIST Cybersecurity Framework) so that information can be applied to realizing group business goals. ▪ Continue to provide customers with a safe and high-quality product experience by ensuring that the supply chain complies with the information security policy throughout the R&D, development, support and manufacturing processes. ▪ Conduct regular offensive and defensive information security drills, and strengthen information security awareness in the supply chain through information security training.	Formulate the "Rewarding Regulation for Patent" and "Rewarding Regulation for Awarded Products".
Vision and Goal	▪ The rate of new employees signing the "Employee's Ethical Code of Conduct" reaches 100%. ▪ Provide yearly RBA education and training for native and foreign employees, supervisors, and seed lecturers.	▪ No substantial violations of laws (with a fine exceeding NTD 1 million).	▪ Continue to participate in the Corporate Governance Evaluation and improve governing strategies based on the evaluation results.	▪ Continue to expand the scope of operational risk management and improve operational stability.	▪ No major information security incidents. ▪ Continue to refine the information security management structure; obtain information security-related certifications ▪ Strengthen information security education and training among employees and throughout the supply chain	• The number of patents and awards received each year grows steadily.
2021 Major Achievement	[●] The signing rate reached 100%. [●] During 2021, corporate ethical management and anti-corruption training sessions were conducted 170 times and attended by 3,077 people.	[●] No violation occurrence in 2021.	[●] Ranked between the range of 36~50% in the 2021 corporate governance evaluation.	[●] 7 areas of risk were identified for continuous monitoring by dedicated units and the development of response strategies [●] A COVID-19 response team was set up and measures implemented to maintain business continuity. The results were recognized with a silver award in Epidemic Prevention Leadership Award from the Taiwan Immunization Vision and Strategy. [●] There are no breaches of privacy at GIGABYTE in 2021.	[●] Continued to distribute education e-mails to enhance information security awareness among employees. [●] There was one hacker attack in 2021. A small number of servers and files were damaged but all are now back in operation again; the Company's production, sales and routine operations were not affected.	[●] Awarded 150 patents in 2021, an increase of 51.5% compared with the pre vious year. [●] Won 26 awards in 2021,15,667 awards won to date.

[●] Stage objective completed [●] In progress [○] Not yet implemented [●] Stage objective not yet achieved

2.1 Integrity Management and Legal and Regulation Compliance

Morality and integrity have been the core corporate culture of GIGABYTE since its foundation. We believe that operating with integrity and taking the responsibility to the society into account is also essential for corporate sustainable development.

GIGABYTE complies with the Responsible Business Alliance (RBA) publicly, self-examines with the highest corporate ethical code of conduct, and establishes the Code of Business Conduct and "Responsible Business Alliance Code of Conduct" to guide equal and safe working environment, legal compliance obligation, external business activities and corporate asset protection. To urge employees to abide by this Code, GIGABYTE requires every new employee to sign the "Employee's Ethical Code of Conduct", and also provides education training of anti-corruption, intellectual property rights, etc., to shape an emphasis on morality and integrity by the whole Company's members. (For more details of the Code of Business Conduct please refer to GIGABYTE CSR Website)

GIGABYTE commits that all business activities fully comply with the laws and regulations of the country and region where GIGABYTE operates and encourages employees to formulate and implement self-standards higher than the basic legal requirements, and also actively promotes social and environmental responsibilities and business ethics in line with internationally recognized standards. The Legal & IP Affairs Division is responsible for regularly supervising and tracking the laws and regulations of domestic and foreign areas where GIGABYTE operates or sells products. All the Company's employment practices, supply chain management, and customer service comply with international relevant trade tariffs, fair trade, hazardous substances prevention, anti-bribery, anti-boycott laws and regulations, human rights standards, and other conventions and regulations.

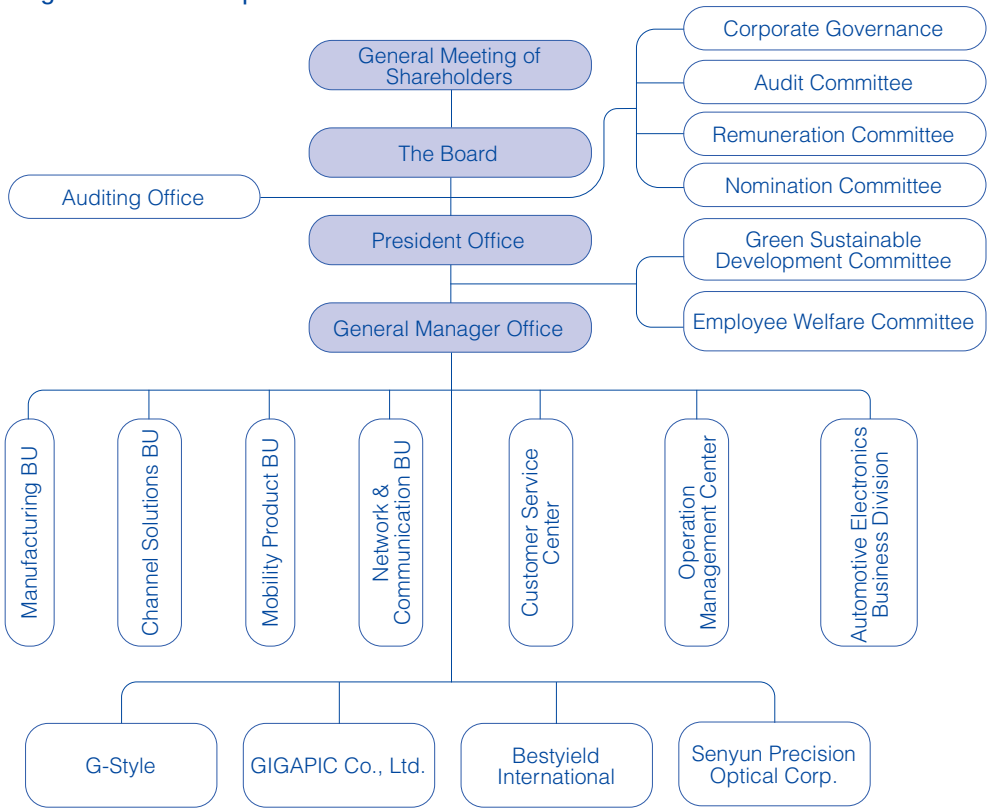
For employees, GIGABYTE continuing to organize and introduce training on ethical management. Course topics encompassing legal affairs and intellectual property, internal audit and controls, accounting system, and ethical management are offered to managers, general employees and foreign employees based on their requirements to ensure that every employee understands the GIGABYTE ethical management vision and system. Related courses were held 170 times in 2021. 3,077 people received 1,840.7 hours of training.

Safe and anonymous grievance channels are provided to employees in addition to proactive training and education. The highest level employees can send suggestions or complaints is the vice president. Once receiving a complaint, it will be treated on a case-by-case basis and disciplinary actions will be taken if necessary. The range of complainants also expands to distributers to ensure that employees always adhere to the ethical boundaries for business dealings. The Company promises that employees would not suffer demotion, penalty, or other adverse consequences even if their compliance with the ethical rules results in business losses. We hope this would support building an anti-corruption environment. There were no violations of ethics or local laws that occurred in 2021. (For more stakeholder communication channels, please refer to GIGABYTE Investor Website)

2.2 Corporate Governance

Robust corporate governance is the backbone of business operations. By setting a governance organization and a transparent and prudent decision-making process, GIGABYTE ensures that every step of operational strategy can take full account of all stakeholders.

◆ Organization of Corporate Governance



Internal audits and self-inspections are periodically conducted in accordance with corporate governance regulations and principles, and to respect shareholders' interests. Clearly defined rules such as "Rules of Procedure for Board of Directors Meetings" and "Procedures for Handling Material Inside Information" serve to ensure operational transparency and prevent conflicts of interest so that the management team can focus on managing the business and fulfillment of social responsibility.

2.2.1 Board of Directors and Management Team Board of Directors

Board of Directors

The Board of Directors is the highest joint discussion organization for business management activities. In 2021, the GIGABYTE Board of Directors was made up of 9 directors and the Chairman was Mr. Pei-Chen Yeh. The GIGABYTE Board of Directors in 2021 and all were men aged between 51 to 70 years old. The Board was convened 12 times in 2021 with an average attendance of 98.1%.

To ensure the fairness and independence of decision-making as well as rely upon the abundant experiences of professionals from industry and academia, the Board includes 3 independent directors with a professional background in finance, accounting, law, industry, and management. GIGABYTE directors regularly attend development courses on corporate governance, industry trends, and regulatory changes to maintain their professional edge and ability. The Remuneration Committee and Audit Committee were also set up by GIGABYTE in accordance with the law to strengthen the competency of the Board, and to ensure fairness in the appointment of directors and their resolutions.

(For the background of all Directors, please refer to GIGABYTE Investor Website)
(For the continuing education that the Directors participate, please refer to GIGABYTE's 2021 Annual Report)

◆Comparison of the Annual Remuneration[1] and Increase Percentage between the Highest-paid Individual and General Employees[2]

	Taiwan Bases		China Bases	
	The Highest Annual Remuneration[1]	Median Annual Remuneration of General Employee	The Highest Annual Remuneration[1]	Median Annual Remuneration of General Employee
Ratio to Median Multiple	25	1	8.3	1
Ratio to Median Increase Percentage	-1.0	1	-0.8	1

[Note 1] The Annual Remuneration: The sum of fixed salary and floating salary.
[Note 2] General Employees: The statistical benchmark is based on the employees in service at the end of December 2021.

Remuneration Committee

In order to assess the achievement of performance goals for the Company's directors, supervisors, and managers, and to maintain the appropriateness of individual remuneration, GIGABYTE established the Remuneration Committee in 2011 in accordance with the Securities and Exchange Act. In 2021 the GIGABYTE Remuneration Committee was made up of two independent directors (Mr. Hwei-min Wang, Mr. Zheng-li Yang) and one industry expert (Mr. Peng-Huang Peng). The committee was convened five times and average attendance was 100%.

(For the details of composition, responsibilities and operation condition for the Remuneration Committee, please refer to GIGABYTE's 2021 Annual Report)

Audit Committee

The Audit Committee is to supervise the proper expression of the Company's financial statements and independence and performance of the certified accountants, as well as to ensure the Company's compliance with laws and the effectiveness of the internal control system. The Committee meetings are convened at least once every quarter and convened at any time whenever necessary. A valid resolution must be approved by more than one-half of all members, and meeting minutes would be made according to laws and regulations and retained indefinitely. In 2021 the GIGABYTE Audit Committee was made up of 3 independent directors (Mr. Yi-Hong Chan, Mr. Hwei-Min Wang, and Mr. Zheng-Li Yang). It was convened nine times and average attendance was 100%.

(For more information on the operation of the Audit Committee please refer to the GIGABYTE's 2021 Annual Report)

Nomination Committee

The GIGABYTE Nomination Committee was established on August 3, 2021, to strengthen the functionality of the Board and management mechanism. The Committee members elect one of their members as the convener and chairperson. Members of the current Nomination Committee will serve until the end of their directorship. In 2021 the GIGABYTE Nomination

Committee was made up of one director (Mr. Pei-Chen) and two independent directors (Mr. Hwei-Min Wang and Mr. Zheng-Li Yang). It was convened one time and average attendance was 100%.

(For more information on the operation of the Nomination Committee please refer to the GIGABYTE's 2021 Annual Report)

2.2.2 Internal Audit

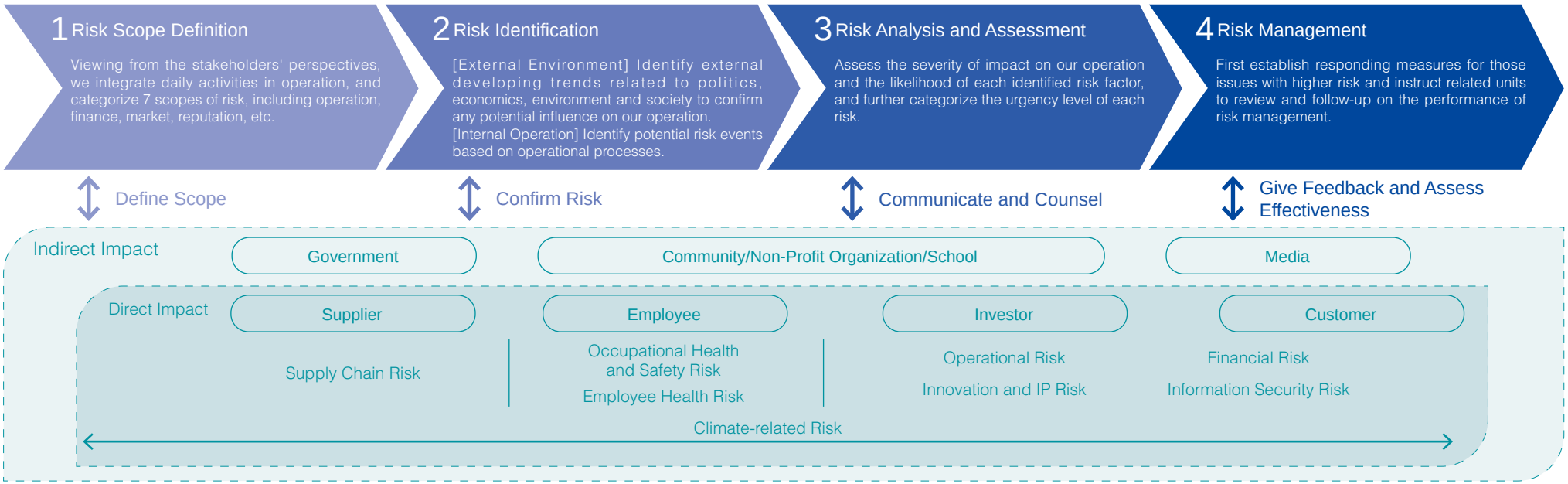
GIGABYTE's internal audit unit is an independent unit that reports directly to the Board of Directors. In addition to regular reports at routine Board of Directors meetings, the internal audit unit also reports to the Chairman monthly or anytime when necessary. The internal audit plan is an important part of corporate risk management and can weigh and discover the performance of all departments and operational processes. For example, if there is a deficiency during the audit process, the auditor will immediately notify each audited unit or subsidiary to take appropriate improvement measures. GIGABYTE's internal audit is divided into 10 major audit directions, including salary cycle, product production and equipment cycle, as well as cash-flow-related cycles like receiving/payment and financing, to comprehensively examine the Company's daily operation.

In addition to the internal audit, GIGABYTE regularly discloses company-related information on the Company's website and TSE Market Observation Post System, and actively incorporates external evaluation mechanisms, such as participating in the Corporate Governance Evaluation System by the Financial Supervisory Commission (FSC) every year. GIGABYTE ranked between 36% and 50% in the 8th Corporate Governance Evaluation. We will keep taking the lesson from the evaluative results, list the insufficient part as the priority for future improvement, and expect to gradually improve our corporate governance.

2.3 Risk Management

Sound risk management is the basis of corporate sustainable development. By means of risk controlling and managing process, GIGABYTE first identifies 7 risk dimensions, including operation, finance, innovation, and information security, etc. Further, the potential impact scope of each risk is determined and the risks are assigned to responsible units for sound risk management measures based on their professionals and practical experiences in related fields.

◆ Risk Management and Control Process



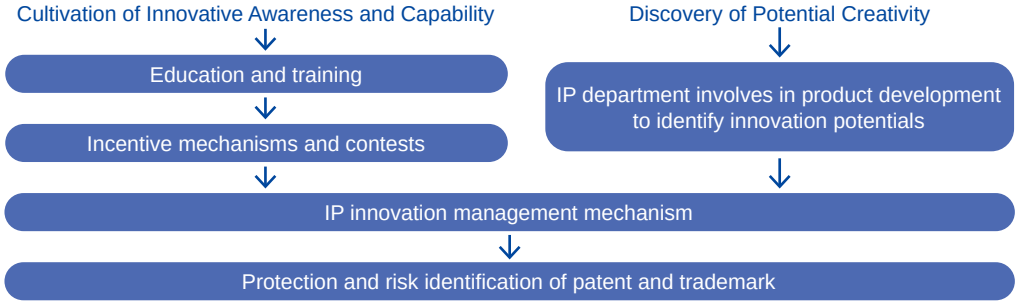
◆ Risk Identification and Management

Risk Aspect		Operational and Financial Risks	Information Security Risk	Climate Risk	Supply Chain Risk	Occupational Health and Safety Risk	Employee Health Risk	Innovation and Intellectual Property Risk
Risk Boundary	Business	●	●	●	●	●	●	●
	Finance	●	●	●	●			●
	Market	●	●	●	●			●
	Business Reputation	●	●	●	●	●	●	●
	Supply Chain		●	●	●			
	Society	●	●	●	●	●	●	
	Environment			●	●	●		
Risk Control Measures		**Operational Risk Management** Establish an Operational Risk Management Center to manage product parts, excess materials, and inventory as well as monitor tax regulations in different regions. Train employees and adjust trade strategies if necessary. Plan to expand the management scope to all potential operational risks in the future. **Financial and Accounting Risk Management** The Board sets overall financial risk management principles and issues written policies for specific ranges and items such as interest rates, exchange rates, use of derivative and non-derivative financial instruments, and investment of surplus liquidity. These are all implemented by the financial department.	Establish Information Security Committee as the highest governance unit for information security risk management. Revise management regulations in accordance with domestic and overseas information security regulations and standards (e.g. Authorized Economic Operator (AEO), NIST CSF) as necessary to ensure confidentiality, integrity and availability of information. Conduct regular offensive and defensive information security drills and strengthen internal information security awareness through employee training. The "Privacy Protection and Management Regulations" is drawn up to keep customer data secure. There were no leaks of customer data in 2021.	Launch the Green Action Plan, introduce ISO 14064, promote the development of friendly products, and cultivate sustainability awareness among all employees. Participate in the CDP and voluntarily introduce the Task Force on Climate-Related Financial Disclosures (TCFD) framework to build comprehensive processes of climate risk identification, matrix analysis, and scenario analysis that integrate climate-related impacts with finance. Monitored climate-related transition and physical risks along the supply chain in 2019.	Define 4 major management aspects and 15 sub-targets for comprehensively managing supplier quality, price, service and delivery. Strategic orders are also used to reduce the risk of single source materials. CSR audit and sustainability assessments are conducted to assess and identify high-risk suppliers that need for further tracking and management. Introduce a new tiered supplier management system in 2021 to incorporate ESG evaluation into the procurement process and provide a reference for placing orders.	GIGABYTE defines Risk Assessment Procedures for the working environment. Each year, the EHS department compiles the Hazard Identification Form based on the irregular examination of the on-site environment, impact of hazards, and current controls. EHS-related hazards and risks are classified into 4 levels, and each is then inspected in turn to determine the adequacy of the existing management process.	To safeguard employee health and safety from COVID-19, timely internal e-newsletters are distributed and prevention measures are implemented in response to epidemic development. Classify the health condition of employees based on health exam results into 4 levels every year and start the tracking and management mechanism and provide medical subsidies for high-risk groups since 2020; these together with everyday health activities and promotions, overwork and ergonomic injury prevention, and EAPs help to maintain the physical and mental health of employees and reduce the risk of occupational diseases.	Cautiously develop patent and trademark strategies for key technologies of the Company. Also, participate in product and technology development plans every year to actively seek out potential patents. Hold education and training to cultivate employees' sensitivity to intellectual property, and establish rewarding and managing mechanisms to protect the innovations of employees.
Related Chapter		Overview of GIGABYTE	None	3.2 Climate Change Mitigation and Adaptation	4.1 Sustainable Supply Chain	5.3.1 Environmental Health and Safety	COVID-19 Epidemic Prevention Management 5.3.2 Healthy and LOHAS Workplace	2.4 Innovation Management

2.4 Innovation Management

GIGABYTE continuously focuses on innovative R&D in order to master critical cutting-edge software and hardware technologies so that they can be harnessed to create a better life for all of humanity. A sound management mechanism has been developed by GIGABYTE to help employees turn their creative inspirations into competitive products and services. We also continue implementing the "GIGABYTE Patent Reward" and organizing education/training and proposal challenges in order to cultivate an atmosphere and corporate culture that embraces creativity and reform.

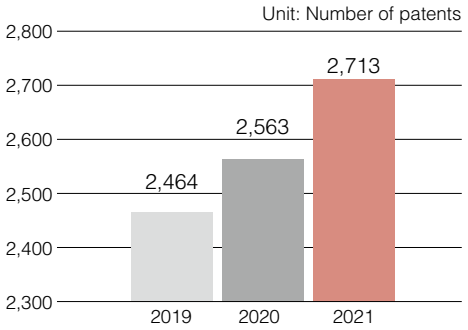
◆ Innovation Management Process



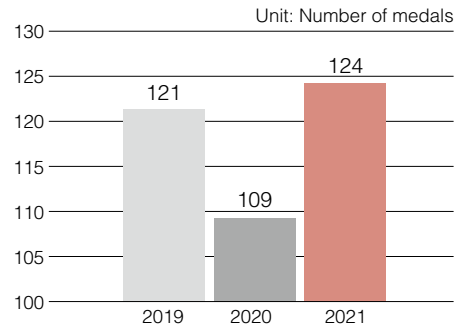
Achievements of Innovation

The Legal Affairs and Intellectual Property Division oversees all patent applications and maintenance activities within the Group. GIGABYTE has obtained more than 100 patents in the last 3 years and the accumulative number of obtained patents up to 2021 is 2,713. Besides, the internal patent rewarding mechanism encourages employees to engage more in innovation development and turn their creativity into reality.

◆ Cumulative Number of Obtained Patents



◆ Number of Medals of Internal Patent Reward



◆ 2021 Innovation Highlights

Smart Healthcare

Smart Fall Detection System

3D depth sensing technology is used to detect human body movement and position with privacy protection. When a fall occurs, the system will immediately alert the nursing personnel so that timely assistance can be provided for injury mitigation. The system effectively improves the quality of healthcare and compensation for gaps in coverage due to a lack of round-the-clock manpower. A teaching hospital in Taoyuan, Taiwan, has already introduced the system for their VIP ward.

Smart Retail

GIGABYTE has launched a wide variety of retail solutions for the sales process, including: the AIoT smart space management system and interactive digital signage to help merchants maximize returns on space; low-power and compact IoT devices suitable for POS and self-check-out systems; delivery robot controllers that help to reduce manpower and delivery costs.

Data Center

Data centers will be the centers of future intellectual technology. Server products based on different processor platforms, immersion cooling technology, as well as software/hardware technologies that support AI and machine learnings from GIGABYTE help users master digital information and apply them to 5G, edge computing, block chains and many other fields.

Latest example: The increasing precision of electronics fabrication processes imposes greater energy and cooling efficiency demands on hardware. The liquid immersion cooling solution offered by GIGABYTE and our partners provides high-density, heat-producing components with effective cooling and power supply protection through direct immersion. Concerns over failure induced by cooling fan vibrations are also eliminated. Our solution helps customers improve their processing performance while also reducing energy consumption and carbon footprint. The solution has now been introduced to the "Immersion Cooling Solution for HPC Data Center" at TSMC.

Intelligent Transportation

GIGABYTE supplies software and hardware platforms with high stability, low delay, and design flexibility that can be used for the control servers of Advanced Driver Assistance Systems (ADAS), In-Vehicle Telematics Control Unit for communications vehicle, License Plate Recognition, and intelligent high-way electronic tolling system to create an obstacle-free intelligent transportation experience for drivers.

(For more innovative technologies from GIGABYTE please refer to GIGABYTE INDUSTRY)

3 Green Production

3.1 Environmental Management 3.2 Climate Change Mitigation and Adaptation 3.3 Responsible Production

Material Topics of This Chapter	Environment Policy and Management System (Voluntary disclosure)	Climate Change and Carbon Management	Hazardous Substance Management	Responsible Production and Consumption Circular Economy
Management Approach	Shape a business model that enables harmonious coexistence with nature and internalization of environmental impacts.	Mitigate the impacts on corporate operations from the worsening climate change, and promote effective climate-related management and adaptation measures.	Take full responsibility as a manufacturer to reduce the impacts on the environment from manufacturing processes and strive for achieving resource circulation.	
Policy and Action	▪ Introduce ISO14001 Environmental Management System. ▪ Promote the "333 Reduction Plan" and set annual and long-term reduction goals. ▪ Promote the "Sustainability Fund" and "Reduction Reward Program" to encourage internal proposals of energy conservation. ▪ Introduce fully automated intelligent production processes.	▪ Introduce ISO14064 and PAS 2050. ▪ Participate in the CDP. ▪ Introduce the Science-based Target (SBT) tool to review the carbon reduction plan to link with the global emissions control target. ▪ Introduce TCFD framework for climate-related risk identification and scenario analysis.	▪ Introduce IECQ QC 080000 hazardous substance process management certification. ▪ Refer to international laws and regulations and publish GIGABYTE "Harmful Chemical Substances Requirements (HCSR)". ▪ The treatment of all wastes, exhaust gases, and sewage generated by GIGABYTE comply with local laws and regulations.	▪ Introduce ISO14051 material flow cost accounting. ▪ Release the "Product Environmental Reports" to disclose potential environmental impacts of a product during its life cycle. ▪ The local service sites of Bestyield International recover waste electronic products of all brands. The products are repaired, refurbished and resold to realize the reversed logistics business model of the circular economy. This business model has received BS 8001 certificate. ▪ Define a Group product packaging and incoming packaging reduction plan.
Vision and Goal	▪ Reduce carbon emissions by 3% every year, and reduce 50% in 2025 compared to the 2009 base year. ▪ Reduce water and waste by 3% every year, reduce water by 20% and waste by 50% in 2030 compared to the base year 2010.	▪ Continue to participate in the CDP to keep improving and urging climate management performance and aim to be scored above the Management Level.	▪ Revise the GIGABYTE HSCR every year according to the latest chemical substances laws and regulations. ▪ No major violations of environmental protection.	▪ Publish Product Environmental Reports of all product lines. ▪ Continued to promote the ICT Refurbished Product Certification worldwide, improve service integration capability and make process improvements to boost the cost-effectiveness of the circular economy. ▪ Non-use of disposable packaging from 2030.
2021 Major Achievement	[●] In 2021, the scope of GHG inventory expanded to include the Taipei Silicon Valley Park offices of two subsidiaries, Bestyield International and G-Style. Carbon emissions were 4.05% higher than 2020 but 38.85% lower than the baseline year. [●] Received 162 proposals through the reduction reward program to date. The number of proposals in 2021 was 115% higher than 2020. These translated into annual savings of 3,991 MWh in electricity, 28,622 tonnes of water, and 367 tonnes of waste. [●] Water consumption in 2021 was 10.97% lower than 2020 and 33.56% lower than the base year. [●] Waste production in 2021 was 19.65% higher than 2020 and 1.54% lower than the base year.	[●] Scored A- (leadership level) in CDP climate change and A- in Supplier Engagement Rating (SER) in 2021. [●] Conducted climate scenario analysis based on RCP 2.6, RCP 8.5, and National Greenhouse Gas reduction policy in Taiwan (NDC).	[●] Updated HSCR to version 4.7. [●] No major environmental violations in 2021.	[●] Published environmental reports for 4 main product lines and the accumulative number of published reports to date was 58. [●] Recovered, repaired, and refurbished 638,000 electronic products, and the rate of repaired products gotten back by consumers was 98%. [●] Continue with the product packaging reduction plan and hold information sessions to coordinate with suppliers as well as procurement and R&D management units.

[●] Stage objective completed [●] In progress [○] Not yet implemented [●] Stage objective not yet achieved

3.1 Environmental Management

GIGABYTE's environmental management commits to reducing the environmental impact of operations and manufacturing processes as well as protecting the health and safety of our employees. Environmental and hazardous substances management systems such as ISO14001, ISO14064-1, and IECQ QC 080000 are introduced to ensure that our routine operations and products all comply with environmental standards and regulations.

3.1.1 Environmental Management Performance

In terms of environmental management, GIGABYTE sets a clear long-term goal drawn with an aggressive reduction timetable. The "333 Reduction Plan" was set as a short-term goal aiming at reducing carbon emissions, water use, and waste by 3% every year. At the same time, initiatives such as the reduction reward program and green challenges help employees cultivate the habit of energy and water conservation. It also provided motivation to get involved in the development of green and energy-saving products.

(For more information on GIGABYTE environmental and quality management systems, please visit the GIGABYTE CSR Website)

◆ 2021 Environmental Resources Input and Output

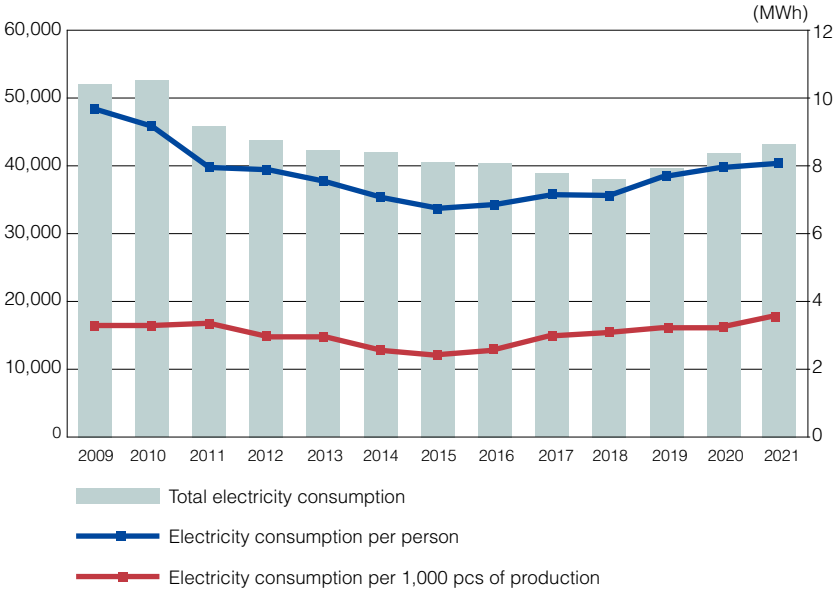
Input		Output		Reduction Outcomes over the Past 2 Years
Energy[1] [GJ]	Purchased electricity: 155,550.38 Purchased steam: 5,453.65 Gasoline: 254.49 Diesel: 2,620.70 LPG: 24.09	Greenhouse Gases [t-CO_2e]	Direct emissions (scope 1): 1,063.52 Indirect emissions (scope 2): 28,874.43	▪ **Increased 313.39 t-CO_2e (+1.1%)** in 2020 compared to the previous year Reduced 41.23% compared to the base year 2009 ▪ **Increased 1,166.02 t-CO_2e (+4.05%)** in 2021 compared to the previous year Reduced 38.85% compared to the base year 2009
Water Resource [Tonnes]	Tap Water: 259,235	Effluent [Tonnes]	Domestic sewage: 207,388	▪ Decreased **3,229 tonnes (-1.1%)** in 2020 compared to the previous year Reduced 25.38% compared to the base year 2010 ▪ Decreased **31,948 tonnes (-10.97%)** in 2021 compared to the previous year Reduced 33.56% compared to the base year 2010
Resource[2] [Tonnes]	Plastic: 3,273.01 Glass: 817.63 Metal: 9,087.89 Paper: 6,974.18 Other: 1,106.52	Solid Waste [Tonnes]	General industrial waste: 2,244.59 Hazardous industrial waste: 233.41	▪ **Increased 251.87 tonnes (+13.84%)** in 2020 compared to the previous year Reduced 17.71% compared to the base year 2010 ▪ **Increased 406.92 tonnes (+19.65%)** in 2021 compared to the previous year Reduced 1.54% compared to the base year 2010

[Note 1] The energy conversion factors are based on the location of plants where the energy types were used. The factors of steam, LPG, and gasoline take reference from the data in China, while the factors of diesel and gasoline used in Taiwan bases refer to the Heat Content of Energy Commodities table published by the Bureau of Energy, MOEA.
[Note 2] Input resources include all product packaging as well as the materials used to produce ATX, Micro ATX, and Mini ITX motherboards.
[Note 3] General industrial waste includes domestic waste.
[Note 4] The scope of energy consumption in this table encompassed Headquarters, Taoyuan Nanping Factory, China Dongguan and Ningbo Factories, as well as the subsidiaries Bestyield International's and G-Style's Taipei Silicon Valley Park offices; the scope of water use and resources included Headquarters, Taoyuan Nanping Factory, and China Dongguan and Ningbo Factories.

Energy Conservation

Electricity is the main type of energy used by GIGABYTE in our routine operations and production processes. GIGABYTE added the Taipei Silicon Valley Park offices of the subsidiaries Bestyield International and G-Style to the scope of our energy inventory in 2021. Total electricity consumption was 43,208.44 MWh, up 3.40% from 2020 but 16.88% lower than 2009. Analysis found that the increase in electricity consumption was due to increase in production output as well as the more complex and energy intensive production processes required for products with a more complete set of features. GIGABYTE is therefore continuing to invest in the energy efficiency of production lines through greater automation and internal energy efficiency training. In 2021, our plants carried out 19 intelligent production upgrades. These included optimization of production line configuration and processes, equipment upgrades and developments, and introduction of work aids as part of our continued efforts to realize the goal of intelligent production.

◆ Electricity Consumption and Intensity Over the Years



◆ Optimization of Hardware Efficiency

Operation Base	Energy Conservation Project	Electricity Saving (Unit: KWh)	Energy Reduction (Unit: GJ)	Emission Reduction (Unit: t-CO_2e)
Headquarters	Replaced water cooled chillers	222,946	802.61	111.92
	Switched to energy-efficient lighting	26,015	93.65	13.06
Nanping Factory	Replaced standard 100HP air compressor with energy-saving permanent-magnet variable-frequency compressor	175,200	630.72	87.95
	Replaced CP7 high-speed insertion machine on SMT production line with NXT high-speed insertion machine	375,840	1,353.02	188.67
	Replaced pressure pumps in dormitories variable-frequency and constant pressure water pumps	4,318	15.54	2.17
	Introduced 1-to-many disc duplicator to notebook testing line	977	3.52	0.49
	Introduced automatic screw locking machine to notebook assembly line	5,928	21.34	2.98
	Developed automated optical inspection (AOI) for DIP post-processing	374	1.35	0.19
	Introduced monitoring system for SMT reflow fans	4,602	16.57	2.31
	Developed and introduced feed alert for assembly line	443	1.59	0.22
	Introduced laser engraving equipment for notebook safety certification stickers	28	0.10	0.01
	Established sharing measures for SMT materials	5,888	21.20	2.96
Dongguan Factory	Switched to variable-frequency pumps	10,800	38.88	8.69
	Installed high-performance cabinet air-conditioner	41,860	150.70	33.66
	Replaced wave soldering and reflow ovens	184,320	663.55	148.23
	Introduced heat pump with Level 2 of China Energy Efficiency Label	11,520	41.47	9.26
Ningbo Factory	Switched to LED lighting	17,000	61.20	13.47
	Introduced automatic burner for SMT	11,520	41.47	9.12
	Fitted motion sensor exhaust fans in toilets	23,040	82.94	18.25
	Introduced virtualization of production for AUTOLINK server production	30,720	110.59	24.33
	Set up drying room for DIP processes	74,849	269.46	59.29
	Improved energy efficiency of plastic spray-painting booth	360,000	1,296.00	285.16
Total		1,588,188	5,717.48	1,022.39

[Note 1] The energy types of all energy conservation measures were electricity. The figures are estimated.
[Note 2] Since the measures are different year by year, the figures for saved electricity were compared to the energy consumption of the equipment before improvement.
[Note 3] The electricity emission factor used by bases in Taiwan was 0.502 kg-CO_2e/kWh announced by the Bureau of Energy, MOEA.
[Note 4] The electricity emission factors used by the base in eastern China were 0.7921 kg-CO_2e/kWh and 0.8042 kg-CO_2e/kWh for the base in southern China.

Water Resource Conservation

The manufacturing process of GIGABYTE's products is mainly assembly, which does not consume too much water, and the water sources for basic factory facilities and domestic water are tap water. The water resources management policies are promoted and implemented through water-saving policies, education promotion, and annual reporting of the performance. Besides, we build rainwater recycling systems on the G-HOME Sustainable Eco-Roof that can supply about half of the water for irrigation every year. In the future, we will continue to look for raw materials with lower water footprints to achieve the water-saving target of the overall product lifecycle.

In terms of wastewater discharge, all GIGABYTE's wastewater is domestic sewage and is legally discharged into underground sewers in accordance with the local laws and regulations. Thus, it has not caused impacts on the environment and ecology around the business locations.

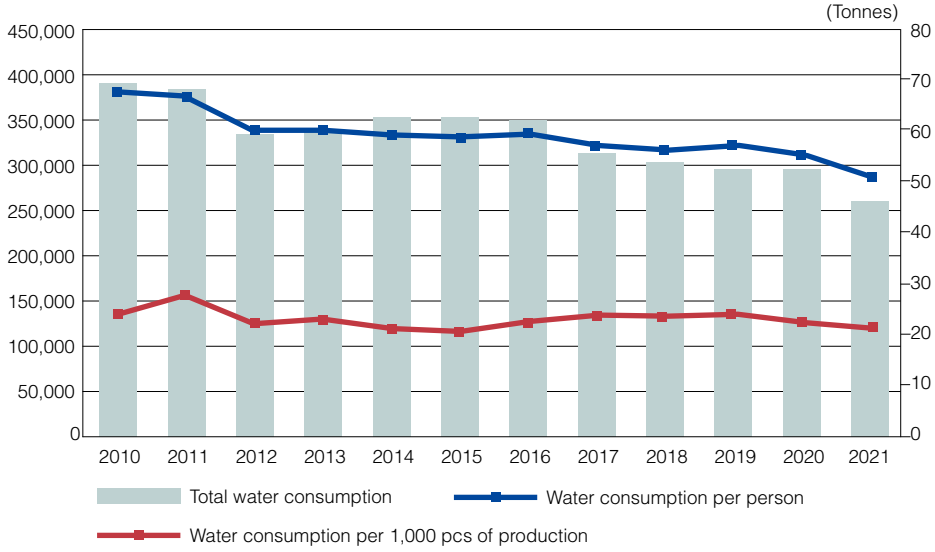
Water Use in 2021

Unit: megaliters

Water Resources	Total Water Withdrawal	Total Water Discharge	Total Water Consumption
Distinguish by Source of Water Withdrawal and Discharge			
Surface Water	-	-	51.85
Groundwater	-	-	
Seawater	-	-	
Produced Water	-	-	
Third Party Water	259.24	207.39	
Distinguish by Water Category			
Fresh Water[1]	259.24	207.39	51.85
Other Water[2]	-	-	

[Note 1] Freshwater: total dissolved solids ≦ 1,000 mg/L
[Note 2] Other Water: total dissolved solids >1,000 mg/L

Water Consumption and Intensity Over the Years



Waste Reduction and Pollution Control

The domestic waste, recyclable waste, and hazardous industrial waste generated by GIGABYTE's operation have been commissioned to legal cleaning and transportation companies for disposal. The "333 Reduction Plan" sets a target to reduce waste by 3% every year, and we strive to reduce waste through improving the process and introducing circular resource modes. Our ultimate goal is to achieve "Zero Waste and Zero Pollution".

◆ GIGABYTE Total Waste Generation in 2021

Unit: Tonne

	General Industrial Waste			Hazardous Industrial Waste			
	Recycle (including compost)	Landfill	Incineration	Recycle	Landfill	Incineration	Other
Taiwan	597.52	-	337.64	13.92	-	-	40.52
China	810.85	498.57	-	127.45	-	51.51	-
Total	1,408.37	498.57	337.64	141.37	-	51.51	40.52

In terms of pollution control, since the GIGABYTE process is relatively simple, both industrial waste and hazardous waste of the assembly-based factories are managed by legal contractors. Besides, the Ningbo Factory has installed the related equipment for disposal of paint exhaust gas and electronic exhaust gas in response to its special manufacturing process in order to properly treat and dispose xylene and non-methane hydrocarbon emissions.

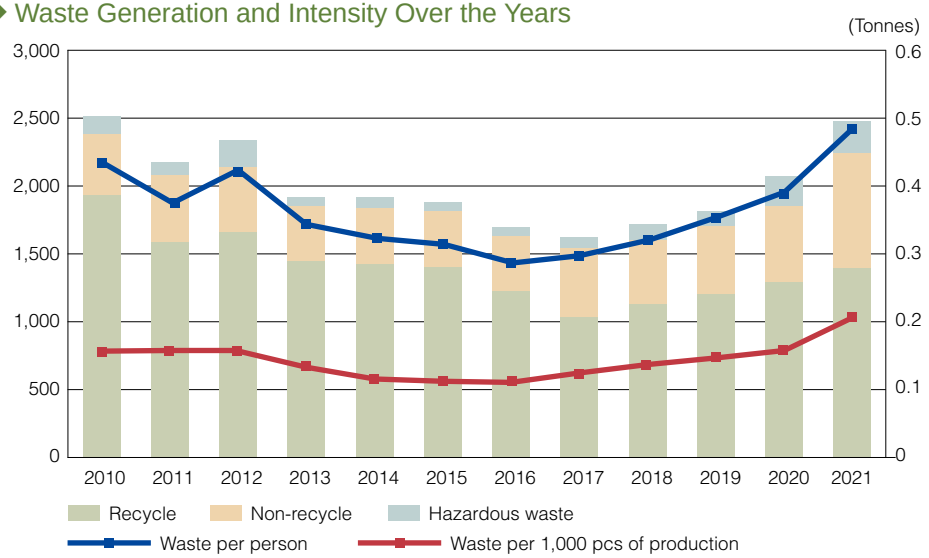
3.1.2 Sustainability Fund and Reduction Reward Program

In 2019, GIGABYTE officially launched the 6-year "Sustainability Fund". The Fund is based on the savings of energy fee every year and invests in three aspects, that is, energy conservation at factories, development of resource reduction and low-carbon products, and green projects related to climate change and sustainable development. The program aims to stimulate comprehensively innovative thinking for manufacturing, operation, product strategies, and sustainable development plans to provide incentives and motivations for reduction and to strengthen the internal competence of green designing that helps achieve the purpose of reduction.

Factory Reduction Reward

An analysis on carbon reduction outcomes and changes in production output at each factory between 2020 and 2021 was conducted. All three factories (i.e. Nanping, Dongguan and Ningbo Factories) were qualified for "Factory Reduction Reward" from the Sustainability Fund. This was the first time that the "Factory Reduction Reward" had been issued since the inception of the Sustainability Fund. We hope that each factory can keep up their good effort and continue to refine their carbon reduction initiatives.

◆ Waste Generation and Intensity Over the Years

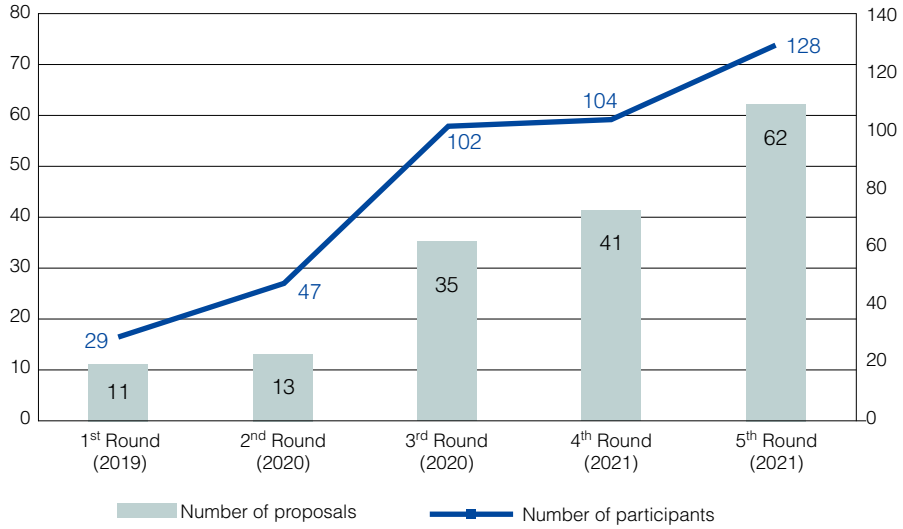


Results of Reduction and Low-carbon Product Proposals

Applications for reduction and low-carbon product proposal rewards are accepted twice a year. Five rounds have been held as of the end of 2021. Proposals submitted by employees this year included waste reduction measures such as recovery and reuse of waste solvents and streamlined packaging, carbon reduction initiatives such as streamlining of operating procedures and the introduction of more energy-efficient equipment, as well as proposals for water recycling.

The average approval rate for proposal rewards this year was 79.6% and we will continue refining the reward scheme in the future. The transparent reward scheme and judging process were also used to provide advice and guidance on optimization of proposals. We hope this will motivate employees to put environmental awareness into practice in their work and submit proposals as a team. They will not only be rewarded with prize money but will also receive additional opportunities for learning.

◆ Participation Outcomes of Reduction and Low-Carbon Product Proposals



◆ Cumulative Reduction Performance of Proposals

Round	Electricity Savings (MWh per year)	Water Savings (tonnes per year)	Waste Reduction (tonnes per year)	Waste Liquid Reduction (KL per year)	Carbon Reduction (t-CO_2e per year)
4th Round April 2021	501.65	4,457.60	6.72	5.71	394.30
5th Round Oct 2021	721.47	10,885.00	17.01	3.57	561.78
Cumulative Outcome (2019-2021)	3,990.87	28,622.20	313.27	54.08	4,473.52

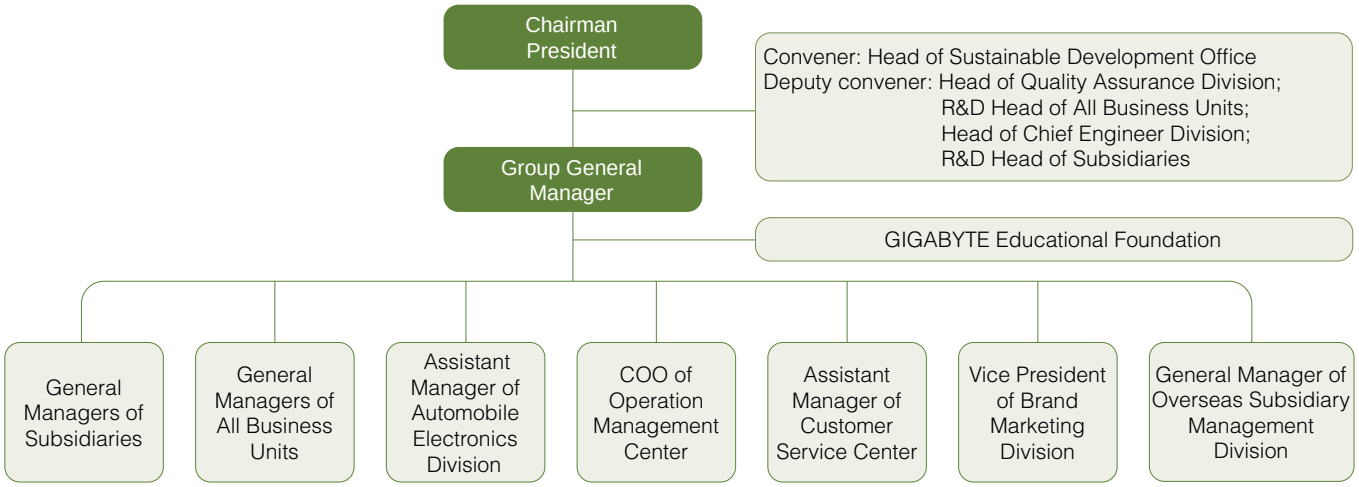
3.2 Climate Change Mitigation and Adaptation

GIGABYTE is committed to mitigating the impacts caused by business operations on climate change. Visionary management policies and effective response plans have been adopted for effectually promoting climate-related management and adaptation measures. These not only improve our operational efficiency, boost the green competitiveness of our products, but also fulfill our environmental responsibility on climate change mitigation and adaptation.

3.2.1 Climate Governance Organization

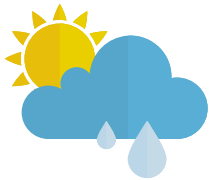
The GIGABYTE Green Sustainable Development Committee was formally established in 2009 to serve as the highest management level for sustainable development issues such as climate change. The Committee is chaired by the Company's chairman and holds a cross-functional meeting attended by all business units, plants, and subsidiaries once a month. The conclusions and resolutions of the meetings are submitted to the chairperson. The annual accomplishments are also reported to the board of directors at the end of the year, so they can evaluate the overall performance of the company.

◆ GIGABYTE Green Sustainable Development Committee



Committee Responsibility and Strategies

The Committee pays close attention to sustainability strategies that would influence the whole corporate, and climate-related topics are one of its focuses. Therefore, company-wide climate actions, practical implementing measures, strategies extending to the value chain, as well as criteria set for monitoring the process are all planned detailly by the Committee.



Climate Governance Strategy

- Formulate the core green policy of GIGABYTE - Green Action Plan.
- Monitor climate-related international and domestic trends and propose responding strategies.
- Collect and analyze data of energy consumption and greenhouse gas emissions from each operating base.
- Transparently disclose climate-related actions by GIGABYTE.

Concrete Mitigation and Adaptation Plan

- Set a long-term emission reduction target. (Please refer to 3.2.4 Greenhouse Gas Inventory and Reduction Performance)
- Conduct greenhouse gas inventory according to ISO14064 annually and obtain verification by a third party.
- Develop an internal product carbon footprint calculation platform and conduct LCA for all main product lines.
- Cooperate with the Forest Bureau of Taiwan and international NGOs to plant trees and encourage value chain partners to participate.
- Establish G-HOME Sustainable Eco-roof to demonstrate the roof greening practices that considers climate adaptation and ecological co-prosperity. It has become a base for GIGABYTE to promote environmental education.

Value Chain Cooperation

- Collect the reduction performance of energy and resources of suppliers by conducting the Supplier Sustainability Evaluation every year. The information is also used for identifying climate-related risks of the supply chain.
- Hold the Supplier Conference to provide climate-related education and training.

3.2.2 Climate Risk Assessment and Management Strategy

To get a full picture of the impacts on our business resulted from climate change or the opportunities that it may create, GIGABYTE adopts the Task Force on Climate-related Financial Disclosures (TCFD) framework to identify short-, medium- and long-term climate-related risks and opportunities and establish various responding strategies and management measures for each type of risk and chance.

While planning on the management strategies for climate-related risks and opportunities, we take the financial impacts, the changes to operational strategies or business models, and the effects on the whole value chain into account. Climate scenario analyses are also conducted and are reviewed and re-evaluated every year.

Short-term Risk

The risk is certainly likely to have a significant impact on the Company's operation or business strategies within 1-3 years, and thus responding measures must be taken immediately.

Medium-term Risk

The risk is very likely to have a significant impact on the Company's operation or business strategies within 3-5 years, and thus responding measures must be taken in advance.

Long-term Risk

The risk will probably influence the Company's operation or business strategies within 5-10 years, and thus continuous monitoring on possible variables such as related regulations, climate conditions, etc. must be taken.

Process of Climate Risk Identification

Stage 1 Risk Information Collection and Identification and Classification of Issue

Comprehensively collect potential global and local climate-related issues that are generally faced by electronics industry, including:

- Substantial consequences caused by global warming or extreme weather events.
- Current or emerging laws and regulations related to climate mitigation and adaptation.
- Changes in policies, business activities, or markets due to any other climate-related factors.

The issues identified at this stage are further divided into 3 categories:
A. Response to policies and regulations.
B. Response to international trends.
C. Substantial consequences caused by climate factors.

Stage 2 Financial Impact Assessment

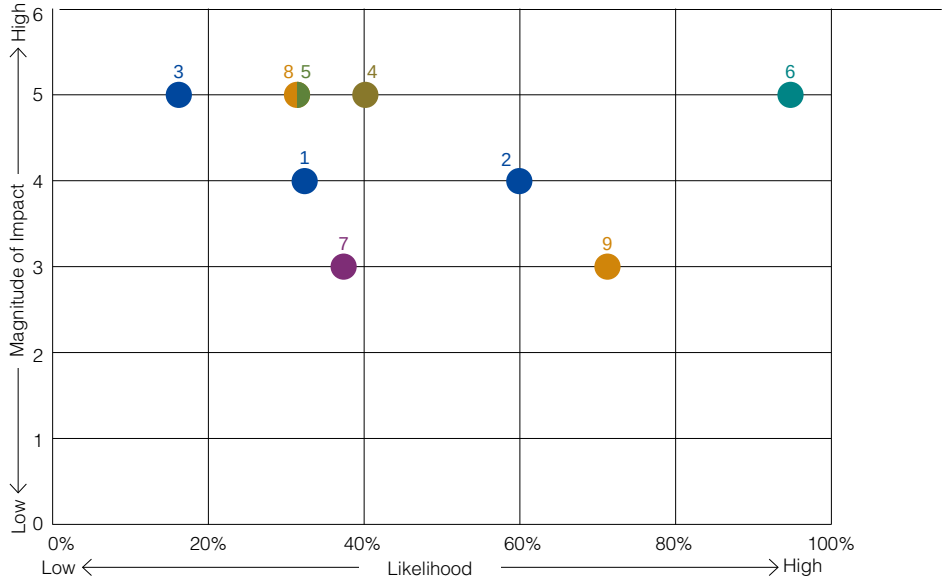
Assess whether the risk issues identified in the first stage have direct or indirect impacts on GIGABYTE's operations and financial performance. The aspects taken into consideration are such as increasing operational and labor costs, increasing capital investment in innovative technology transition, and other uncertain results.

Stage 3 Risk Matrix Analysis

Conduct a risk matrix analysis to assess the materiality of the climate-related issues that are identified in the second stage and have impacts on GIGABYTE. The analysis contains 3 indicators, including impacted scope, occurrence frequency, and the extent of the impact. These indicators will then help identify the priority of each issue according to its urgency for responses.

9 Material Climate-related Risks

2021 GIGABYTE Climate Risk Matrix



1	Increasing rigor in GHG emission disclosure requirements	Policy
2	Fluctuation of investment cost and electricity tariffs due to energy transition policy and structural adjustments	Policy
3	Impact on trade costs from progressive activation of carbon pricing mechanisms in the international market	Policy
4	International trends lead to carbon footprint becoming a factor of product competitiveness	Technology
5	Increased sustainability awareness among consumers and changing preferences	Reputation
6	Downstream customers raise their carbon management requirements for the supply chain	Market
7	Increasing severity of extreme climate events	Acute
8	Variation in precipitation and climate patterns	Chronic
9	Drastic increase in cost of cooling as temperatures continue to rise	Chronic

Climate Scenario Analysis

Passive Response
More Losses from Physical Risk

Active Response
More Costs from Transition Risks

	Business-as-usual Scenario (BAU)	National Determined Contribution Scenario (NDC)	Bold Approach to Reduction (2DC Scenario)
Qualitative Analysis	Assess the extent to which GIGABYTE will face the impact of operations and other possible physical risks under the circumstances that the big environment has not actively adopted the climate mitigation measures. ▪ Increase energy costs. ▪ Increase GHG emissions. ▪ Increase the risk of supply chain disconnection due to extreme weather. ▪ Face assets loss of damaged factories and equipment.	GIGABYTE has not been regulated by the Greenhouse Gas Reduction and Management Act but has assessed responses in advance to cope with stricter GHG emission regulations in the future. ▪ Increase operating costs in order to comply with the regulations. ▪ Increase the risk of contingent liabilities when the emissions fail to meet the obligatory standard.	Assess the financial and non-financial impacts that GIGABYTE will face when the global temperature is controlled well below 2 ° C. ▪ Increase investment costs for low-carbon transition in technology and processes. ▪ Increase the risk of sunk costs from equipment due to low-carbon transition.
Quantitative Analysis	**2030** Energy expenses including air-conditioning and cooling equipment will increase by about NTD 3.92 mollion. The losses of other climate-related disasters have not been assessed. **2040** Energy expenses including air-conditioning and cooling equipment will increase by about NTD 7.5 mollion. The losses of other climate-related disasters have not been assessed.	**2030** To meet the standard, the cost of purchasing RECs will be NTD 9.1-11.7 million and building renewable energy equipment will be about NTD 13.9 million. If the standard is not met, the cost of the combined fine will be NTD 8.4-21.9 million.	**2030** The costs of replacing high-efficient and low-carbon equipment and purchasing renewable energy certificates will be approximately NTD 6.9-7.6 million. **2050** The costs of replacing high-efficient and low-carbon equipment and purchasing renewable energy certificates will be approximately NTD 19.1-34.5 million.

3.2.3 Identification of Climate-related Risks and Opportunities

Risk Category		Risk Description	Potential Financial Impact	Management Measure	Derived Opportunity
Transition Risk	Policy and Legal	Taiwan EPA amendments to Greenhouse Gas Reduction and Management Act will activate a carbon fee mechanism.	Increasing operating costs, such as compliance costs.	[Strategy] ▪ Continue to strengthen environmental management system. ▪ Invest in climate-related research and management manpower. ▪ All business locations implement energy conservation solutions, and replace old equipment to improve process efficiency. ▪ Invest in climate-related research and management manpower. [Actions] ▪ The GIGABYTE Green Sustainable Development Committee develops and supervises the implementation of sustainability strategy. ▪ The responsible unit continuously supervises international laws, regulations and trends. ▪ Participate in domestic climate response meetings and adjust the direction of climate policy in time to meet regulatory compliance. ▪ Implement ISO 14064 and perform third-party certification. ▪ The "Sustainability Fund" was set up in 2019 to transform the savings from energy and resource conservation into the reward for units with reduction performance in order to promote continued internal innovation and improvements to resource utilization ▪ Set up life cycle assessment system to analyze 12 environmental impact categories, such as carbon footprint, of all products series.	▪ Introduce internal carbon pricing mechanism to assess the true cost of products and target source of energy consumption to improve product competitiveness. ▪ Continue to optimize the energy efficiency of processes so that production output increases while operating costs are reduced. ▪ Crossover into the market for low-carbon products or services to increase brand visibility and boost brand value. ▪ Transition to green product services to satisfy customer requirements and consumer preferences. ▪ Develop and apply renewable energy to realize carbon reduction targets, fulfill corporate responsibility on environmental protection, and enhance brand preference.
		Define renewable energy transition targets and issue "Renewable Energy Development Act" to set requirements on ratio of renewable electricity; increases to ratio of renewable energy will also lead to higher electricity prices.	Cost of production will increase because of investment in energy transition and fluctuations in energy prices.		
		EU will implement the Carbon Border Adjustment Mechanism (CBAM) in 2023 and collect fees on imported products based on their scale of direct carbon emissions.	Carbon pricing mechanism will increase product costs, or increase operating costs from compliance on carbon reduction.		
		China is committed to peaking carbon emissions by 2030 and reaching carbon neutrality eventually. Enhanced management measures such as an emission trading scheme and dual energy and intensity controls generates compliance risk for the operating sites in China.			
	Technology	Product carbon footprint has become a key part of market consensus due to global consensus on the 2°C or even 1.5° C scenarios. Nearly 95% of GIGABYTE products are export so a low-carbon transition will be essential to maintaining brand competitiveness.	Reduction in demand for products and services that leads to lower revenues, or increase in production operating costs due to different nations' environmental regulatory requirements.	[Strategy] ▪ Voluntary analysis and disclosure of carbon footprint information for all products. ▪ Promote energy conservation policy at all operating locations and investment in the R&D of energy-efficient and low-carbon products. ▪ Strengthen supplier management to lower the environmental impact of the value chain as a whole. [Actions] ▪ Appropriate research and development budget from revenue every year to develop high efficiency, low-carbon footprint products. ▪ Voluntary introduction of Product Life Cycle Assessment and Material Flow Cost Accounting (MFCA) as well as inventory and disclose the Scope 3 emissions of our organization. ▪ Launch the "Sustainability Fund" to reward the development of low-carbon products and cultivate the capability to develop products with low environmental impact.	
	Business Reputation	The rise of consumer awareness on climate change topics may change consumer preferences. As a brand vendor, GIGABYTE must make constant adjustments to our product to satisfy consumer expectations and maintain our brand value.	Decline in demand for products and services due to changes in consumer preferences.	[Strategy] ▪ Continue to invest in the research and development of low-carbon products and services. ▪ Analyze, assess and disclose carbon footprint and other environment-related information of products. [Actions] ▪ Appropriate research and development budget from revenue every year to develop high efficiency, low-carbon footprint products. ▪ Continue to publish product environmental reports to voluntarily disclose the 12 environmental impact categories of key products to fulfill our duty as a producer.	

Risk Category		Risk Description	Potential Financial Impact	Management Measure	Derived Opportunity
Transition Risk	Market	Growing corporate awareness on climate change has led to increasingly strict requirements on carbon management in the supply chain by downstream customers. Those that fail to meet those standards may miss out on orders and opportunities for cooperation.	Changes in customer behavior lead to a decline in demand for products and services.	[Strategy] ▪ Invest in the R&D to create products that meet the market needs. ▪ Set energy-saving targets, plan green projects, and track results. [Actions] ▪ Continue implementing the "333 Reduction Plan", which strives for reducing carbon, water and waste by 3% every year. ▪ Implement ISO14064 and perform third-party certification. ▪ Introduction of tools such as product life cycle analysis and material flow cost accounting for examination of potential energy-saving opportunities. ▪ Launch the "Sustainability Fund" that uses the energy savings from previous year as the incentives for emission reduction in production processes and the development of low-carbon products.	
Physical Risk	Acute	Extreme weather events are increasing in frequency and severity. Taiwan in particular is located in the typhoon-prone northwest Pacific so is at higher risk of flooding and typhoons.	The health and safety of employees is threatened, the cost of manpower management and maintenance increases, resulted in reduced profits.	[Strategy] ▪ Develop typhoon and flood related management approaches and increase supplier diversity. [Actions] ▪ Establish the "Risk and Emergency Management Approaches" according to ISO14001. ▪ Factories conduct water shortage drills in response to potential water restrictions during the dry season. ▪ Establish water recycle system at the Dongguan and Ningbo Factories in China. ▪ Diversify the supply chain to ensure the supply of critical raw materials without concerns.	▪ Diversification and distribution of product sources in the supply chain can improve the stability of material supply and strengthen the risk resilience of the supply chain. ▪ Improve the energy efficiency of offices, processes and equipment to reduce the carbon footprint of products and services as well as save operation costs.
	Chronic	The Headquarters, manufacturing bases, and most of main suppliers are located near the marine area. With the risk of drought and flood increases, the stability of operation and product supply may be affected.	Due to the interruption of transportation and the unstable supply of raw materials that resulted in reduction of production capacity and affected the sales revenue.		
		Global warming shows no signs of easing and the urban heat island effect is becoming increasingly obvious. This will lead to drastic increases in the cost of cooling for offices and factories.	Increased energy expense rates and production costs.	[Strategy] ▪ Monitor and improve air-conditioning efficiency, establish extreme climate response plans ▪ Maintain the eco-roofs to reduce indoor temperatures. [Actions] ▪ Upgrade or remove old AC and cooling equipment to improve the energy efficiency. ▪ Establish the "Risk and Emergency Management Approaches" according to ISO14001. ▪ Install and maintain the G-HOME Sustainable Eco-Roof, effectively reduce the indoor temperature of the highest floor level by 2.5° C, and rooftop surface temperature by 25° C.	

3.2.4 Greenhouse Gas Inventory and Reduction Performance

Greenhouse Gas Management Targets

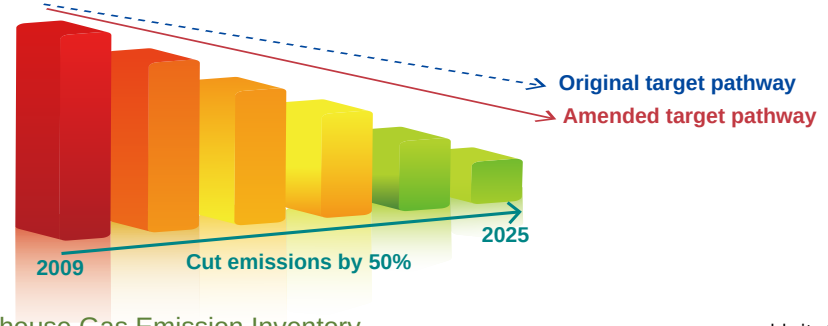
GIGABYTE first implemented organizational GHG inventory in accordance with ISO14064 in 2010. A long-term emission reduction target was established afterward, which is reducing carbon emissions by 50% by 2030 compared to the base year 2009. In 2016, a short-term target, named "333 Reduction Plan", was also set, which aims at cutting carbon emissions, water consumption, and waste generation by 3% compared to the previous year. The concise targets help GIGABYTE track emissions reduction progress and performance.

The globe is now encouraging businesses to respond to the Science-based Targets Initiative (SBTi) and set up their emission reduction target through scientific methods that can ensure keep the global warming under 2 ° C. GIGABTE has not announced our SBT (Science-based Targets) but we did adopt SBTi recommended tools and review standards. Existing carbon reduction targets were examined to determine the gap between the SBT approved carbon reduction path. The long-term goal was amended in 2020 to "Reduce carbon emissions by 50% in 2025 compared to 2009".

Greenhouse Gas Inventory and Reduction Performance

GIGABYTE has conducted annual organizational GHG inventory and third-party certification since 2010. The inventory scope covers the Headquarters, Nanping Factory in Taoyuan, as well as Dongguan Factory and Ningbo Factory in China. The subsidiaries Bestyield International and G-Style Taipei Silicon Valley offices added to the scope of inventory in 2021. The diverse product portfolio of GIGABYTE not only meant that we catered to the needs of the stay-at-home economy and working from home caused by the pandemic over the past two years. We also worked with global partners to develop a variety of innovative solutions to bring smart technology to manufacturing, healthcare, transportation, and communications. The resulting surge in demand for production output led to a 4.05% increase in our absolute GHG emissions in 2021 compared to the previous year, and a reduction of 38.85% compared to our baseline year. However, the carbon emission intensity of our revenues dropped by 27.8% compared to the previous year.

◆ Amendment of Long-term Emissions Reduction Target



◆ Greenhouse Gas Emission Inventory

Unit: t-CO_2e

Emission Scope		Total Emissions	Voluntary Inventory of Total Emissions
Scope 1 Direct GHG emissions		1,063.52	-
Scope 2 Indirect GHG emissions related to energy input		28,874.43	-
Scope 3 Indirect GHG emissions related to transportation	Upstream transportation and delivery	-	234.74
	Downstream transportation and delivery	-	40,088.61
	Employee commute	1,201.65	-
	Customer visit	-	-
	Business trip	24.13	-
Scope 4 Indirect GHG emissions from organizational use of products	Purchase of materials and parts	1,515,136.60	
	Purchase of capital assets	-	1,860.45
	Fuel and energy-related activities (excluding Scopes 1 and 2)	-	739.74
	Disposal of business waste	1,464.50	-
Scope 5 Indirect GHG emissions from use of organization's products	Downstream production process of product	-	1,722.91
	Product usage phase	4,239,140.03	-
	Ultimate disposal of sold products	10,931.82	-
Scope 6 Other indirect GHG emissions		-	-
Subtotal		5,797,836.67	44,646.45
Total		5,842,483.12	

[Note] The third-party GHG inventory extracts down to 4 places behind the decimal point. The GHG data in the above table were rounded to 2 places so the sum of the two differed by 0.01. The actual data shall be as provided on the verification statement.

Participation in CDP

Since 2010, GIGABYTE has responded to the CDP Climate Change Questionnaire because of customer requests. Besides responding to customers' requirement and international expectations, participating in CDP helps further self-examine the implementing processes of carbon management, adjust the carbon management approaches according to the evaluative results and feedback in order to improve the overall management system.

In 2021, GIGABYTE's CDP rating was A- (Leadership). Our rating was better than the industry average and the regional average for Asia. Our supplier engagement rating (SER) was also A-.The growing domestic and overseas importance of carbon management means that we will continue to strengthen our carbon reduction initiatives and review the weaknesses in our performance in order to realize the goal of low-carbon technology.

◆ GIGABYTE CDP Score in the Recent 5 years

		2017	2018	2019	2020	2021
GIGABYTE	Climate Change	B (Management)	B (Management)	A- (Leadership)	B (Management)	A- (Leadership)
	Supplier Engagement Rating	A-	A-	A-	A	A-
Asian Average	Climate Change	N/A	D	C	D	B-
Industry Average	Climate Change	D	D	C	C	B-

3.3 Responsible Production

GIGABYTE incorporates lifecycle thinking into product research, development, and assembly and considers material recycling and environmental friendliness from the design stage. The selection of raw materials strictly follows the hazardous substances control rules. After the products are sold, we provide a longer warranty period and repair services. Furthermore, the customer service center provides electronic equipment recycling services regardless of brand and develops a circular business model based on returned logistic services that strive to achieve resource recycling and reduce the overall environmental impacts of products.

Moreover, disclosing transparent environmental impact data of products is a manufacturer's responsibility to consumers. GIGABYTE started by establishing a product carbon footprint calculation system in 2016 and is able to issue product environmental reports that cover 12 aspects of environmental impacts. (For more information regarding the details of GIGABYTE product environmental reports and its developing processes, please visit the GIGABYTE CSR Website)

3.3.1 Friendly Product

Hazardous Substance Management

To GIGABYTE, ensuring our products to be safe for consumers and be friendly to the environment is the basic principle as a manufacturer. The trends and changes of international hazardous substances management standards are reported quarterly at the Green Sustainability Committee meetings. A cross-department response plan will be started timely when it is necessary. The plan will set the response time target in order to make sure that GIGABYTE's products comply with the latest laws and regulations in time.

We issue the GIGABYTE Harmful Chemical Substances Requirements (HCSR) that classifies the substances into three levels: Level A prohibited substances, Level B prohibited substances with time limits, and Level C potentially prohibited substances in the future. Through systematically managing the list of high-risk substances and forming respective responding plans according to the hazardous levels, we could quickly eliminate prohibited substances.

◆ Hazardous Substance Management Process

Product Design with High Efficiency and Low Energy Consumption

GIGABYTE has introduced various innovative materials, technologies, and meticulous management mechanisms at various stages of the product life cycle in order to facilitate the outstanding performance of the product with high efficiency and stable durability. Moreover, the design stage takes circular economy as its core, it will contribute to moving towards our zero-waste goal.

Advances in AI, 5G and cloud computing technologies have led to much higher requirements being set for data centers by all sectors. A research report found that data centers rivaled

the airline industry in its carbon emissions and its energy consumption was very significant. Due to the extreme weather modes brought by global warming around the world, GIGABYTE made environmentally friendliness our mission by developing innovative data center cooling solutions designed for the future. We were successful in achieving exceptional energy efficiency, eliminating waste of water and electricity resources, and reducing the greenhouse effect caused by the industry.

◆ Friendly Product Design

Diversified Energy-saving Products

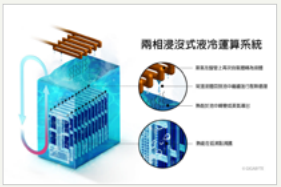
All monitor products comply with EU requirements on power rating and brightness to reduce energy consumption and extend product life.

80 PLUS PLATINUM

All server products are equipped with power supply units with a conversion efficiency at 80 Plus Platinum, Titanium, or higher levels.

Upgrading chip heatsinks to a fanless cooling design without changes to cooling performance solves the problem of fan noise and avoids dust build-up that active cooling solutions often occur.

Two-Phase Immersion Cooling System



Two-phase liquid immersion cooling is where a specially designed tank is used to hold the coolant and ultra-high density processing unit. Heat transfer conducted through the coolant allows for complete immersion and cooling of server and PC components in 50° C environments.

Exceptional Power Efficiency

Heat energy generated by the server evaporates the coolant. The steam rises then changes phase back into coolant. The resulting convection cooling cycle requires no additional energy and reduces Power Use Efficiency (PUE) to 1.08, a major improvement compared to the industry average of 2.29 from 2018.

Extended Service Life

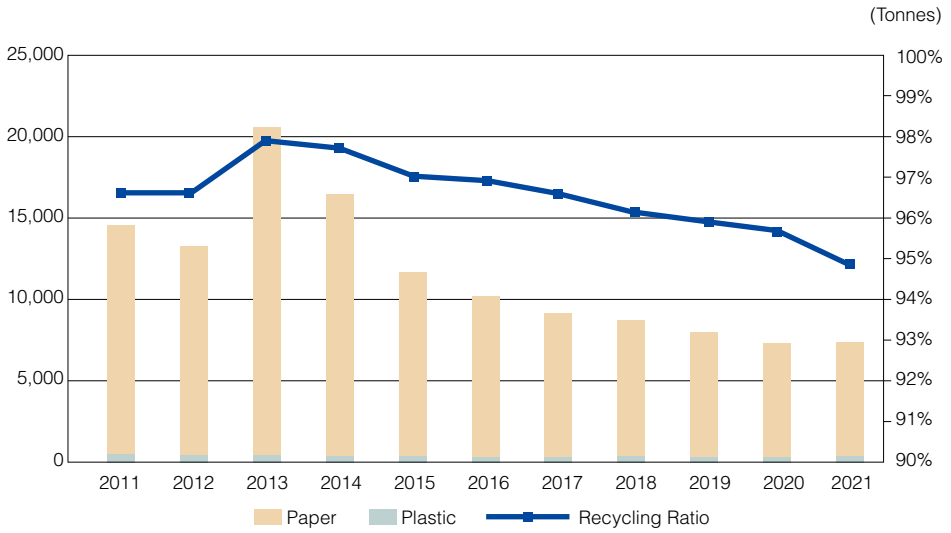
A natural convection flow cooling system reduces human error and avoids damaging fan oscillations to hardware. The system is also immune to temperature changes and has a lower rate of failure overall.

Friendly Packaging Materials

GIGABYTE is continuing to streamline packaging, increase the ratio of recycled materials used, and replacement of polystyrene padding materials in order to reduce consumption of packaging materials and the waste they subsequently produce. We began analyzing our packaging recovery rate and composition in 2011, and reduction progress is reviewed every year. In 2021, GIGABYTE launched the Product Packaging and Incoming Packaging Reduction Plan. Non-use of disposable packaging materials from 2030 onwards was set as the ultimate goal.

◆ Recycling Rate of Packaging Materials

To keep with our mission of "Love the Earth", GIGABYTE makes every effort to avoid excessive packaging while maintaining a certain level of protection. The total weight of packaging used by products in recent years is declining. In 2021, GIGABYTE used 6,974.2 tonnes of paper packaging and 376.2 tonnes of plastic packaging. Total use of packaging was therefore 49.68% lower than 2011. The 2021 recycling rate dipped slightly compared to the previous year due to the reduction in paper packaging use being more significant than the amount of plastic packaging used. We will continue to implement our goal through the reduction action plan.



3.3.2 Circular Economy

In 2018, GIGABYTE drew on more than 20 years of professional expertise in PCB repairs and customer service to set up the subsidiary Bestyield International (Bestyield). A sustainable circular economy business model was established based on a core philosophy of Mottainai[1] . In 2020, the model received Level 4 (Optimizing) in the BS 8001 Circular Economy Standards, the highest level for business model innovation and optimization.

[Note 1] Mottainai is a Japanese phrase used to sigh for something that is no longer it should be. It was later used to convey regret over wasting materials, efforts, or actions.

Popularize the Value of Responsible Consumption

Bestyield converted 6 existing repair centers in Taiwan into G+ 3C Outlet retail outlets. In 2021, some of the rapid service centers were also converted into hybrid sales + service centers. The stores' bright and minimalist design provides consumers with the same pleasant shopping experience as shopping for brand new merchandise. The repair area was designed to educate consumers on the Mottainai spirit and sculptures made from the powder of ground up waste motherboards were displayed inside the store to highlight the innovative reuse of substances.

The G+ 3C Outlet sells refurbished and off-season GIGABYTE products as well as products sold on consignment by other maintenance clients. It also continues providing customer support services. Revenues of 2022 grew by 38.5% compared to 2020. Besides extending physical channels, Bestyield pushes into cross-strait online malls. Starting in 2022, all Eser stores in China officially changed their names to "Sweet Lemon" to promote the spirit of Refurbished Product Certification while they continue to expand their display and sales operations.

▪ G+ 3C Outlet

▪ Repair Display

▪ Sculpture of Waste Motherboards

Strengthen Credibility of Second-hand Market

The "Refurbished Product Certification" (RPC) was introduced by Bestyield International to diminish consumers' doubts and distrust of second-hand products. The product that has been repaired, tested, and meets the quality standards would receive an RPC certificate as well as a resume that shows complete traceability of the product. The certification aims at solving the "lemon's market" where is full of cheap and defective products due to the information disparity between buyers and sellers. Also, to increase consumer trust and willingness to purchase, Bestyield International introduces "Manufacturer Approved" and "100% Tested" certificates and offers a 0-6 months warranty depending on the product types.

Refurbished Product Certification

Manufacturer Approved

Warranty Support

100% Tested

Recycle and Reuse Electronic Waste

Bestyield refers to the 9R circular economy values defined by the PBL Netherlands Environmental Assessment Agency and develops an action strategy in response to "SDG 12.5: by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse" to seek for tangible environmental benefits for electronic waste topic.

Value Proposition		Action Direction
Innovative design in the use and manufacture of products	R0 Refuse	Maintenance quality analyses of products provide feedback to the manufacturing and design sides, and hopefully the need for manufacturing can reduce by improving serviceability at the process or design levels.
	R1 Rethink	
	R2 Reduce	
Extend the life cycle of products and parts	R3 Re-use	Use techniques such as repair, refurbishment, and leasing services as well as extension into the pre-owned market to ensure the resources to be effectively recovered and repaired. The goal of maximizing utility and extending product life cycle can then be achieved.
	R4 Repair	
	R5 Refurbish	
	R6 Remanufacture	
	R7 Repurpose	
Material applications	R8 Recycle	The recovery and re-manufacturing of resources make materials usable by factories or repair centers again.
	R9 Recover	

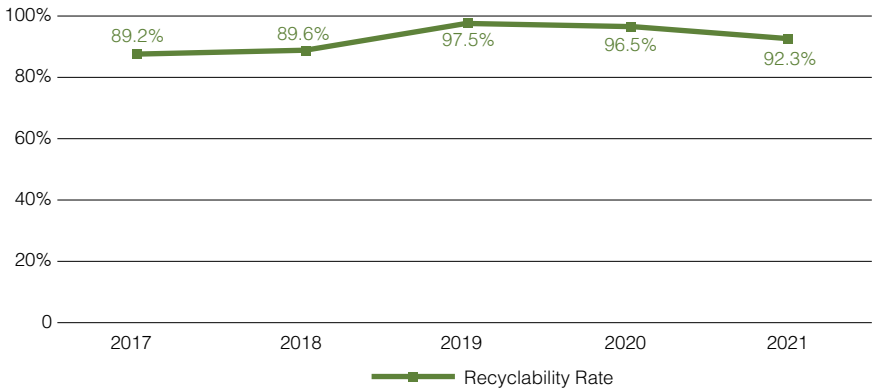
In 2021, Bestyield successfully extended the life of 610,626 products through repair and refurbishment. This was equivalent to removing 675.1 tonnes of electronic waste or 87,000 t-CO_2e emissions.

Action Plan	Outcome
Repair	565,961 pieces were sent for repairs and 553,044 pieces were picked up after being repaired. Repair rate was 97.7% and reduced electronic waste by 633.5 tonnes.
Refurbishment	A total of 44,665 pieces of products were refurbished and 15,032 sold after refurbishment. Unsold products were returned to the distributor's refurbished goods warehouse after refurbishment and testing for continued use. Electronic waste was reduced by a total of 41.6 tonnes.
Disposal	Consumers provided 2,798 pieces of scrapped products that were verified as being unserviceable. All were subsequently disposed of through qualified contractors.
Reuse	Bestyield purchased 24,155 scrapped products and picked functioning or serviceable parts as materials for future repair work.

Product Recycling Rate and Environmental Impact

In addition to the promoting circular economy business model and reinforcing terminal recovery, GIGABYTE is working on increasing the proportion of reusable materials in our products to reduce the environmental burden at their disposal stage. Motherboards manufactured by GIGABYTE are mostly made of metal and plastics. In 2020, a total of 9,087.89 tonnes of metal, 2,860.85 tonnes of plastic, 817.63 tonnes of glass, and 1,059.64 tonnes of other raw materials were used for producing motherboards. The average recyclability rate of raw materials was above 92.3%.

◆ Recyclability Rate of Raw Materials used for Motherboards



4 Partnership Management

4.1 Sustainable Supply Chain 4.2 Customer Relations Management 4.3 Co-Creation of Value with Value Chain Partnerships

Material Topics of This Chapter	Sustainable Supply Chain Management	Conflict Minerals	Customer Relations Management
Management Approach	Improve the quality of the supply chain and the stability of good supply, and deepen the corporate influence to sustainable development through engagement and cooperation with the value chain.	Take the responsibility of corporate citizenship, jointly safeguard human rights, and realize responsible production.	Provide comprehensive after-sales services and create a sound, positive customer experience by responding to customer suggestions and requirements in a timely manner.
Policy and Action	▪ Issue the "GIGABYTE Guidelines of Sustainable Procurement". ▪ Track supplier-related risks and form corresponding policies. ▪ Establish supplier selection mechanisms based on environmental and social criteria. ▪ Launch of packaging reduction plan. ▪ Hold Supplier Conferences and launch the "Reduction. Sharing. Love the Earth Alliance".	▪ Introduce the Responsible Minerals Initiative (RMI) to investigate the use of 3TG and cobalt mines by first-tier suppliers.	▪ Customer satisfaction surveys are conducted every year and a sound customer complaints resolution process put into place. ▪ Define the "Privacy Protection and Management Regulations" in accordance with the Personal Information Protection Act.
Vision and Goal	▪ Gradually extend the scope of supplier risk management aspects and develop responding mechanisms. ▪ Use supplier tier and evaluation results to determine preferred suppliers when ordering to reduce procurement risk. ▪ Non-use of disposable packaging from 2030. ▪ Increase the rate of top 100 suppliers participating in the "Reduction. Sharing. Love the Earth Alliance" . ▪ The reduction progress of Alliance members are periodically checked and provide incentives for meeting reduction targets.	▪ Gradually increase the investigatory number of suppliers to understand the status of the use of conflict minerals. The long-term target is to expand the investigatory scope to 100% suppliers.	▪ Annual customer satisfaction rating reaches above 95%. ▪ No leaks of customers' personal information.
2021 Major Achievement	[●] Enforcement of supplier evaluation and continued tracking of defects and improvements. [●] Launched new supplier classification system and packaging reduction plan. Information sessions were also conducted for the relevant sales personnel and suppliers. [●] The 2021 Supplier Conference was attended by 71 suppliers, and 21% of participating suppliers were among the top 100 suppliers. [●] In 2020, 62 suppliers who took part in the "Reduction. Sharing. Love the Earth Alliance" joined the "333 Reduction Plan", among them 45% were our top 100 suppliers. [●] Out of the 41 Alliance suppliers that made progress in reductions, 30% reduced their carbon emissions, water usage or waste by at least 3%.	[●] In 2021, 503 suppliers took part in the conflict minerals survey, increasing by 8.6% compared to last year. [●] In 2021, 82% of our top 100 suppliers responded to the conflicts mineral survey or made related declarations or actions.	[●] 2021 customer satisfaction rating was 98.7%. [●] There were no leaks of customers' personal information in 2021.

[●] Stage objective completed [●] In progress [○] Not yet implemented [●] Stage objective not yet achieved

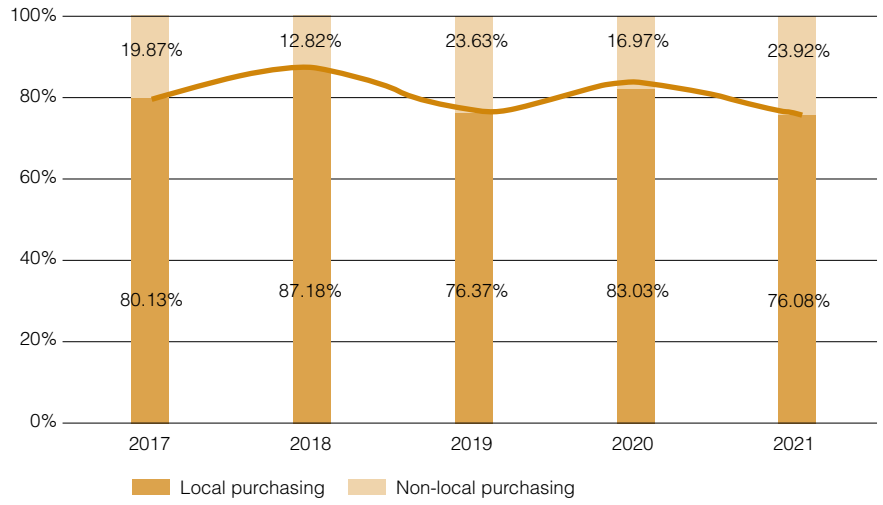
4.1 Sustainable Supply Chain

4.1.1 Overview of Supply Chain

Businesses selecting local suppliers can not only fulfill their social responsibility to the community but also reduce the environmental impact resulting from transportation and distribution over long distances. In 2021, 93.81% of GIGABYTE's first-tier suppliers were located in Asia, followed by 3.60% in the Americas, and 1.87% in Europe. GIGABYTE adheres to local procurement in order to maintain productivity and continuity of operations as well as improve local economic development.

The local procurement rates at all of GIGABYTE's main manufacturing locations (i.e. Nanping, Dongguan, and Ningbo) exceed 75% in recent years. In 2021, NVIDIA and AMD increased the proportion of products shipped from Korea so the local purchasing ratio was 76.08%.

◆ Ratio of Local Purchasing[1] by Amount[2] in the Past 5 Years



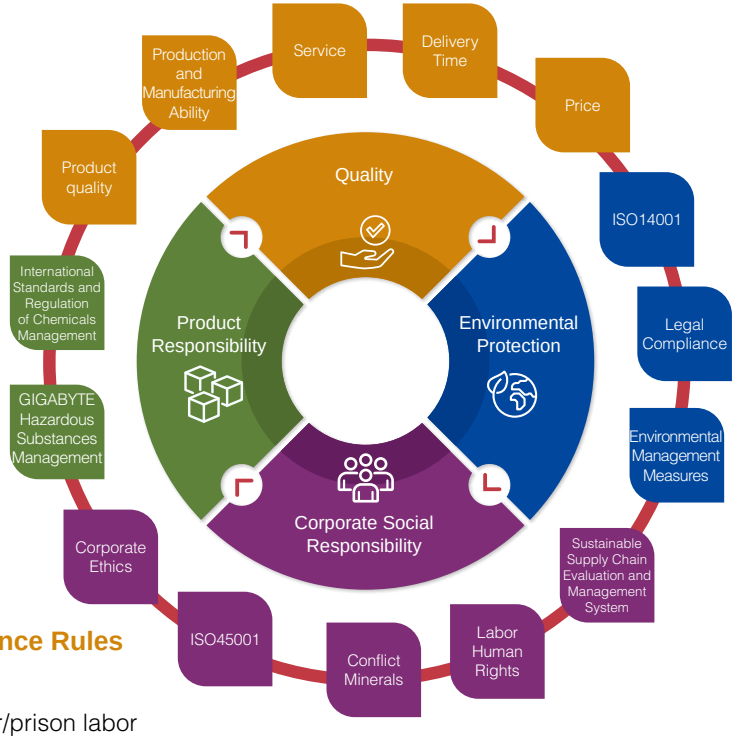
[Note 1] Local: The locations of the material production sites are in the areas where GIGABYTE's main manufacturing bases are located.

[Note 2] Procurement amount: Calculate based on the purchase amount of the year.

4.1.2 Supply Chain Risk Management

In 2018, GIGABYTE officially issued the "GIGABYTE Guidelines of Sustainable Procurement" which applies to the Headquarters, Nanping Factory, two factories in China, and the subsidiaries with substantial influence in Taiwan. We commit to regarding the "Code of Conduct for Responsible Business Alliance" issued by the Responsible Business Alliance (RBA) as the highest guiding principle. 4 major management aspects (including 15 sub-goals) and 4 zero tolerance regulations are set to assess the risk of a supplier. When selecting suppliers, other than the basic requirements like quality, delivery, service, cost, etc., we also investigate and regulate environmental management systems, occupational safety and health systems, corporate social responsibility, hazardous substances, etc., to ensure that the chosen suppliers are in compliance with sustainable procurement standards

◆ Supplier Management and Regulations



4 Zero-tolerance Rules

- Child labor
- Forced labor/prison labor
- Discharge of untreated toxic or hazardous substances/materials
- Behavior that causes immediate physical harm to employees

Identification of High Risk Suppliers

In 2021, GIGABYTE introduced pre-assessment and ratings to classify new and existing suppliers as grade A, B, C or D based on purchasing amount, overall ratings, and compliance with sustainability standards. Re-assessments and mentoring are also conducted for improvement and those graded as D would be progressively weeded out. Regular assessments are conducted on a monthly and quarterly basis to ensure consistent quality in the supply chain.

Supplier Evaluation

Conduct evaluation based on 4 major aspects:

- *Quality, price, service, delivery*
- *Environmental management, occupational safety and health management*
- *Quality and RoHS system*
- *Corporate social responsibility practice*

Tiering, Rating, and Re-Evaluation

Suppliers are divided into different tiers by their purchasing amount and then given an A – D rating based on their overall evaluation scores.

A：Qualified suppliers
B：Qualified suppliers
C：Suppliers under observation (improvement required within 60 days)
D：Unqualified suppliers (must be re-evaluated within 60 days, and would be included in the cooperation list if the re-evaluation is Class C or above)

The suppliers that meet sustainability criteria are marked with a code S.

Monthly and Quarterly Evaluation

Continue to make monthly and quarterly evaluations based on the status of cooperation. Those with poor performance will be provided with counseling for improvement or replacement. Also, conduct on-site audits of factory area and corporate social responsibility performance.

Conduct weight scoring according to cooperation situation, status of return goods, and negative news in order to identify high-risk suppliers and include these factors into the considerations for procurement.

Track the latest issues and identify the potential risks at the location of suppliers every year. Keep expanding the scope of assessment to respond to any situation change to stabilize the supply chain.

Annual Evaluation and Awards

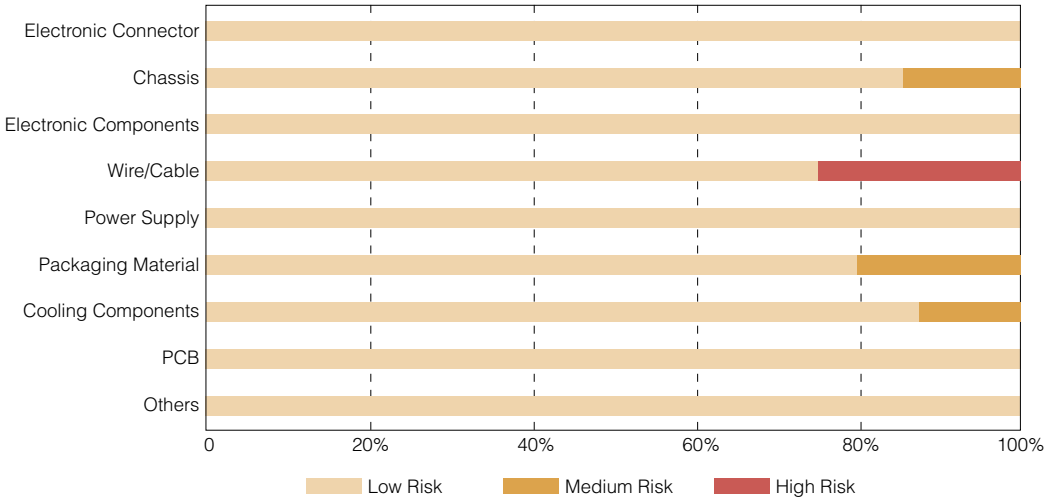
The supplier with excellent performance will be awarded annually. GIGABYTE provides four Awards to well-performed suppliers:

- *Corporate Sustainability Award*
- *Excellent Partner Golden Award*
- *Best Partner Award*
- *Best Agent Award*

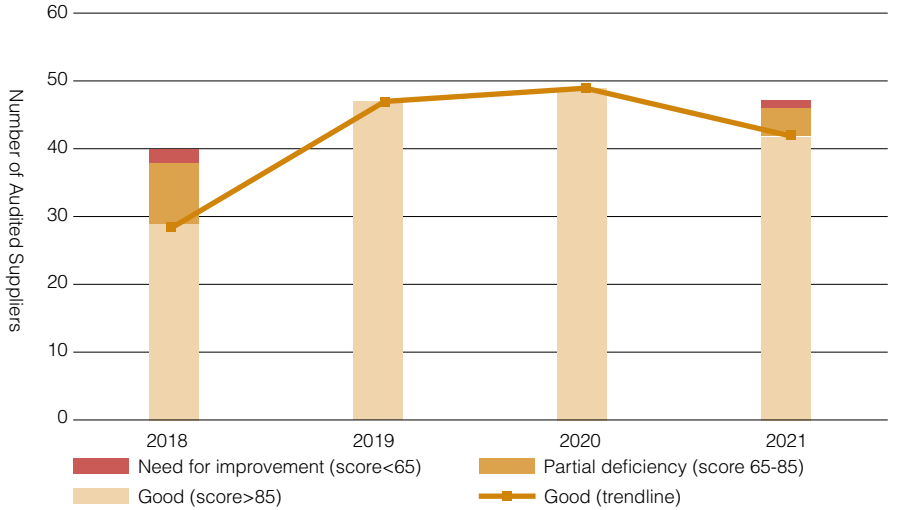
By publicly commending the excellent suppliers, we encourage the suppliers to learn from each other.

In 2021, GIGABYTE audited 47 suppliers for RoHS, quality and CSR. The audit identified 3 suppliers with moderate risk and 1 supplier with high risk, with quality being the most common problem. GIGABYTE is aware of the list and is continuing to track the situation with these suppliers. For CSR, suppliers were assessed against the Responsible Business Alliance (RBA) Code of Conduct in 2021 and nearly 90% of cases were good (scored above 85). The overall average score was 94.8. We will continue to promote related initiatives and projects in the future so that we can lead our supply chain partners in embracing sustainability.

◆ Audit Result of Quality System/RoHS



◆ Audit Result of Supplier CSR Performance

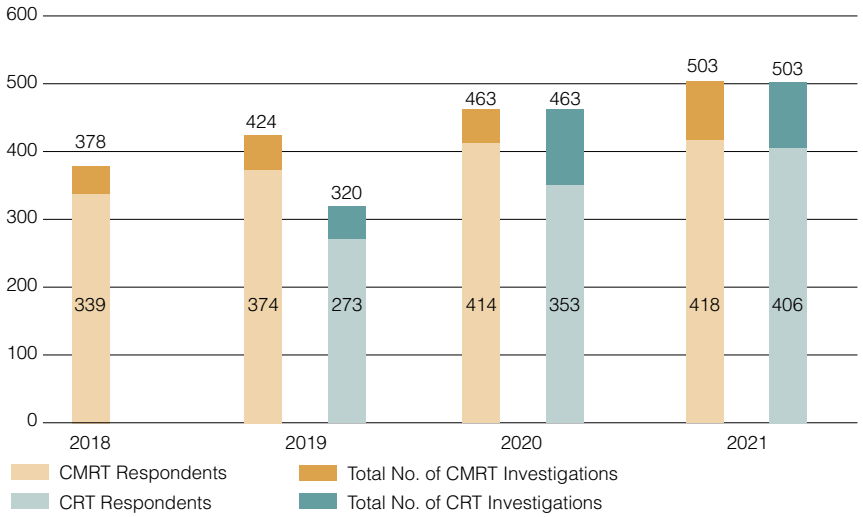


4.1.3 Conflict Minerals Management

Tin, tungsten, tantalum, and gold (3TG) minerals are indispensable raw materials in electronic products. If these minerals are obtained from areas of forced labor, child labor, or armed conflict, they would be considered conflict minerals that oppress and harm of local human rights and living conditions. Therefore, GIGABYTE introduces the Responsible Minerals Initiative (RMI) under the RBA to investigate the use of 3TG minerals by first-tier suppliers, and gradually traces the source through the Conflict Minerals Report Template (CMRT 6.1, CRT 2.2) to further manage raw materials for the purpose of jointly safeguarding human rights and values. GIGABYTE investigated 503 suppliers during 2021 and found being related to 426 3TG and cobalt smelters, of which 380 were qualified (89%). Most were located in Asia followed by Europe. (For a detailed list of smelters/refineries, please refer to the GIGABYTE CSR website)

In 2021, 82% of GIGABYTE's top 100 suppliers of critical components, ranking by purchasing amount, had implemented conflict minerals management. We are continuing to convey the importance of conflict minerals to suppliers through counseling and requirements, expand the scope of investigation year by year, and target to reach 100% implementation among suppliers for the sake of protection of universal human rights.

◆ GIGABYTE Conflict Minerals Investigation



※ CMRT refers to the conflict minerals reporting template for 3TG (Tantalum, Tin, Tungsten, Gold); CRT is conflict minerals reporting template for Cobalt.

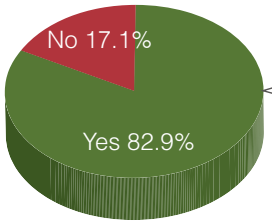
3TG Minerals

We further conducted statistical analysis on the CMRT responses to understand the actual management of conflict minerals by each supplier, and through their regulations and requirements for upstream to outline the use and management of conflict minerals by second-tier suppliers. After screening the completeness of conflict mineral management policies of all suppliers, we selected 161 companies that surely used 3TG minerals from the Covered Countries in their processes and reviewed their management approaches in order to plan timely control measures in time. The screening result found that only 5 high-risk suppliers had not defined a clearer conflict minerals management policy or conducted due diligence on their supply chains. GIGABYTE has drawn up a list and is formulating a follow-up tracking mechanism.

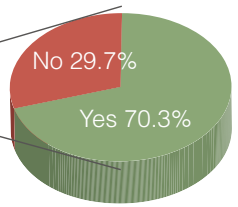
◆ Conflict Minerals Management Status of All Suppliers

Completeness of Conflict Minerals Management Policy among Tier 1 Suppliers

Have established conflict minerals management policies

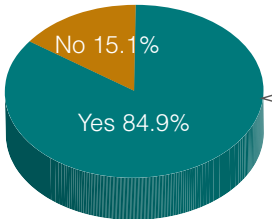


Have published the policies on its corporate website

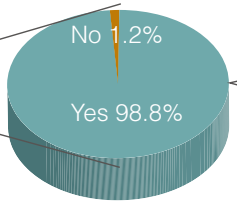


Conflict Minerals Management among Tier 2 suppliers

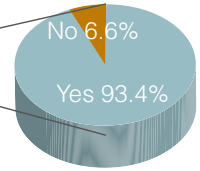
Tier 2 suppliers agree with due diligence investigation



Review non-compliant suppliers in the due diligence investigation

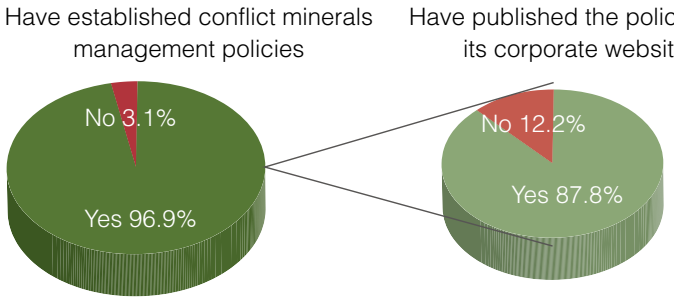


The review mechanism includes counseling measures for improvement



◆ 3TG Minerals from Covered Countries[1]

Completeness of Conflict Minerals Management Policy among Tier 1 Suppliers



Conflict Minerals Management among Tier 2 suppliers

[Note 1] Covered countries: The Democratic Republic of the Congo and its neighboring area

Cobalt Mining

According to the cobalt investigation of 406 first-tier suppliers in 2021, only 135 suppliers used it in their production processes. Among them, 84 (62.2%) suppliers have already established cobalt sourcing management policies. Although currently cobalt is not as widely used as 3TG metals, GIGABYTE will continue to expand the scope of cobalt investigation to eliminate human rights oppression caused by conflict minerals.

4.1.4 Supply Chain Engagement and Communication

The reinforcement and maximization of impacts from corporate sustainable development depend on inter-connections and cooperation throughout the entire value chain. GIGABYTE reinforces the engagement and communication with our supply chain through a variety of channels such as evaluations, awards, education and training, and alliances. We strive to build a partnership beyond trade relations and realize the core philosophy of "Reduction. Sharing. Love the Earth" hand in hand.

◆ 2021 Status of Supplier Engagement

Host for 10 consecutive years	Supplier Sustainability Evaluation and Award Ceremony ↓ The ceremony was canceled duo to COVID-19. Trophies were delivered to 47 awardees instead. The awarded rate of top 100 suppliers was 44%.
Host for 4 consecutive years	"Reduction. Sharing. Love the Earth" Supplier Conference ↓ Total participated suppliers: 71 Participation rate by top 100 suppliers: 21%
Assess for 4 consecutive years	Reduction Performance of "Reduction. Sharing. Love the Earth Alliance" Members ↓ Participation rate of top 100 suppliers: 28% Participants in reduction performance assessment: 41

Supplier Sustainability Award

GIGABYTE's Supplier Sustainability Evaluation process starts with suppliers self-evaluating their implementation performance in 6 major aspects: CSR management, environmental protection, labor practices and human rights, fair trade, supplier responsibility, and social/local contribution. Afterward, the Supplier Evaluation Team from the Sustainable Development Office conducts fair selection based on 4 major aspects: completeness, rationality, the level of cognition, and the level of attention. The suppliers with better scores would be publicly awarded the Excellent Partner Award at the supplier's year-end party. GIGABYTE hopes that the annual award mechanism can facilitate positive competition between suppliers to pursue more outstanding performance in sustainability. The 2021 supplier year-end party was canceled due to the COVID-19, but GIGABYTE still presented trophies to well-performing suppliers to show our appreciation for their support and assistance over the past year. We also looked forward to further cooperation for realizing the vision of "Reduction. Sharing. Love the Earth" together.

In addition to the awards, we also encourage suppliers to fulfill corporate social responsibility by procurement activities. In 2021, the ratio of GIGABYTE's purchase amount from the suppliers participating in the Supplier Sustainability Evaluation was 75.4%. We will continue to increase the ratio in the future to make suppliers have more incentives in carrying out sustainability and therefore construct a sustainable supply chain.

Supplier Conference

"Net zero emissions" is already a global hot issue. GIGABYTE knows that businesses must take carbon management seriously in order to rise above the fray in a very competitive market. During the 2021 Supplier Conference, the Sustainable Development Office introduced to suppliers with voluntary inventory of carbon emissions (ISO14064-1: 2018) and shared the concept of risk management as well as the strategy and outcomes for strengthening the resilience of sustainable supply chains. We hope this will encourage more supplier partners to join us in forging a sustainable supply chain together. GIGABYTE will continue to ramp up our communication efforts to establish sustainability know-how among our suppliers.

◆ Reduction. Sharing. Love the Earth Alliance Supplier Conference on 16 Sep.

Conference Agenda

- Future of Net Zero
- Corporate Sustainability Strategy

Reduction. Sharing. Love the Earth Alliance

GIGABYTE launched the "333 Reduction Plan" in 2016 and set a target of reducing carbon emissions, water use, and waste by 3% every year. We also invested in tree planting and afforestation to conserve the biodiversity of the earth. At the same time, we invited all of our suppliers to join the "Reduction. Sharing. Love the Earth Alliance" and reach the "333 Reduction" targets together with GIGABYTE. We also expect that the suppliers with significant reduction performance could share their experiences with others to stimulate peer learning and achieve general reductions across the entire supply chain.

◆ Status of "Reduction. Sharing. Love the Earth Alliance" Advocacy

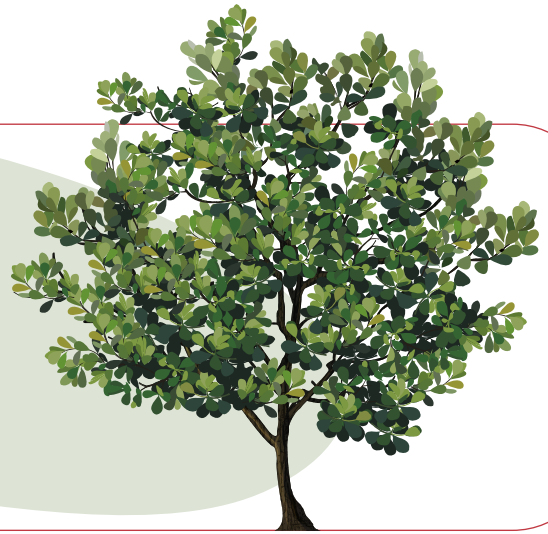
41 partners became 333 Reduction Alliance partners in 2021

80.5%
Have concrete **carbon reduction** targets

41.5%
Have concrete **water reduction** targets

78%
Have concrete **waste reduction** targets

25 companies
Became **tree-planting partners**



"Reduction. Sharing. Love the Earth Alliance" Reduction Performance

After the Alliance was established, GIGABYTE started to investigate the efforts to reduce carbon emissions, water use, and waste by each Alliance member in 2018. Every effort made was to practice the Alliance's core value of reduction. Furthermore, with an outline of the overall reduction trends, we can then develop a more practical strategy for the future. In 2021, we tracked the reduction statistics from the previous year of 42 companies, including partner suppliers and GIGABYTE itself. The reduction outcomes from 2020 compared to previous years are shown below.

	Carbon Emissions Reduction	Water Reduction	Waste Reduction
Rate of Reduction ≥ 3%	12 companies	12 companies	13 companies
0% < Rate of Reduction < 3%	4 companies	6 companies	1 companies

Explanation of Reduction Analysis Result

The statistics showed that nearly 30% of participated companies met the target. The measures to reach targets included setting concrete reduction targets as well as the promotion of carbon reduction, electricity conservation and waste reduction projects. For example, some upgrade more efficient equipment and promote electricity conservation in the office, while some switch to green electricity. Some suppliers also launched water reclamation in their factories and promote other water-related projects.

GIGABYTE will continue to promote sustainable supply chain management in 2022. In addition to enhancing mutual cohesion by holding beach clean-up events and tree-planting, we will carry out the 5th "Reduction. Sharing. Love the Earth" supplier conference and expect that more suppliers will join the alliance and amplify the benefits from reduction. The suppliers with outstanding performance in 2021 will also be invited to share their experiences. We hope this will boost the interaction between as well as the environmental performance of our suppliers.

4.2 Customer Relations Management

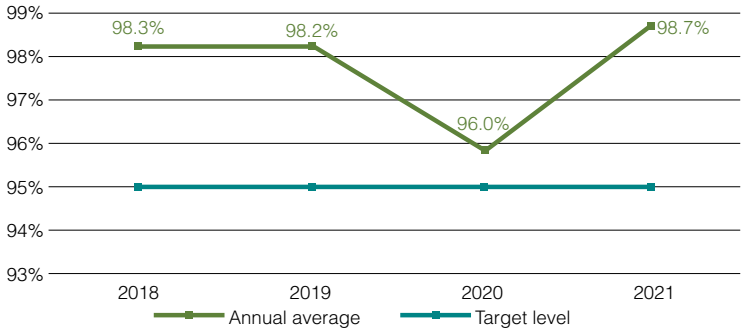
Customer Service and Satisfaction

A positive customer experience is based on not only high-quality and innovative products but also comprehensive after-sales service and timely response to customer suggestions and requirements. This is an important part of GIGABYTE service standards and value. In addition to defining the "Customer Complaints Handling Procedure" and "Customer Questions Handling Procedure," GIGABYTE also conducts periodical satisfaction surveys with an annual customer satisfaction rating of over 95% set as the management goal.

Handling of Customer Rights

A sound customer complaints resolution process has been established by GIGABYTE. There were 8 customer disputes in 2021 mainly from customer complaints over product quality and support process. GIGABYTE reached out to the consumers and resolved the disputes through appropriate responses or product replacement.

Customer Satisfaction in the Past 4 years



Customer Complaints Handling Procedure

1 Receive Feedback on Customer Complaint
- Provide initial response within 24 hours
- Sort and rate complaints

2 Determine Responsible Unit
- Confirm completeness of investigation
- Define scope of company liability

3 Convene Customer Complaints Meeting

If fault is with GIGABYTE
- Convene complaints meeting
- Devise response and approach
- Review by head of responsible unit and obtain confirmation

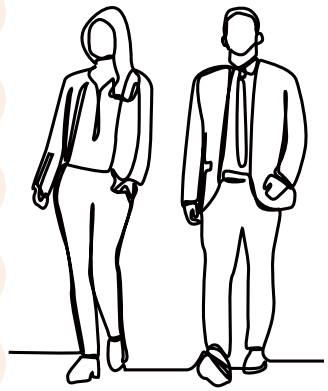
4 Timely Response by Responsible Unit
- Set 2–6 weeks deadline for resolution of complaint depending on severity level

Customer Privacy Protection

GIGABYTE respects the personal information and privacy of our customers. A Personal Information Protection and Management Committee is established in accordance with the government's "Personal Information and Protection Act" to define and enforce the "Personal Information Protection and Management Regulations". Proposals for making future improvements to personal information risks are also developed on an ad hoc basis to protect customer information. There were no leaks of customers' personal information in 2021.

Privacy Protection and Management Regulations

Define Scope of Personal Information	▪ Establish a response team to the Personal Information Protection Act ▪ Set internal personal information inventory plans ▪ Consult with professional advisory counselors
Personal information risk assessment and management mechanism	▪ Evaluate personal information leak risk and carry out tiered management ▪ Include personal information protection in audit processes ▪ Employees are required to sign personal information protection agreement
Incident Prevention, Reporting and Response Mechanism	▪ Regularly inspect personal information security ▪ Conduct simulated drills on personal information leaks (e.g. case occurrence, reporting processes)
Information Security and Personnel Management	▪ Hard-copy documents and database management ▪ Security management for company environment, servers, and firewalls
Personal Information Awareness Education and Training	▪ Carry out ad hoc education via the internal website and e-mails ▪ Provide PIPA education and training for newcomers
Information Security Audit Mechanism	▪ Define audit scope, organization, timing, and methods



4.3 Co-Creation of Value with Value Chain Partnerships

Corporate sustainability depends on teamwork from every part of the value chain. In addition to defining management strategies and reviewing periodically of partners' performance, we also launched coastal clean-up, tree-planting and other projects that suppliers and customer partners were invited to participate in. We hope these hands-on events will encourage value chain partners to pay more attention to environmental topics and contribute to environmental sustainability together.

Joint Coastal Clean-up with Suppliers

To uphold the GIGABYTE spirit of "Thousand Mile Trek - Go Green Taiwan " round-island trek, GIGABYTE participate in a joint corporate clean-up event at Badouzih in Keelung with LITEON and Compal. GIGABYTE sent out an appeal to our supplier partners from the "Reduction. Sharing. Love the Earth Alliance" and mobilized 110 volunteers to clean up 1,237.4kg of trash in April 2021. Working together to pick up trash and remove waste from the sea not only foster a positive relationship with suppliers but also was a valuable lesson in environmental education.

Tree-planting in Pinglin x Trek 5 km for Water

GIGABYTE has been long for practicing the philosophy of "returning trees to the Earth" by our Vice Chairman Liu Ming-hsiung with 89,399 trees planted for the planet so far. In 2020, we took this another step further by adopting forest land in the Pinglin District and committing to protecting the local water and soil ecology. In November 2021, GIGABYTE mobilized our employees, supplier partners and customers to plant precious tree seedlings by hand. We also supported the "Trek 5 km for Water" event initiated by the Dandelion Foundation. The event raised public awareness on the topic of water resources by letting participants experience the difficulty of accessing water in remote rural areas.

Sustainable Consumption Advocacy

Growing global awareness on sustainability meant that today's consumers no longer look only at product price and functionality when shopping. They also communicate their support for sustainable consumption to businesses by supporting related actions and through peer referrals. The result is a positive feedback cycle of responsible production and consumption. GIGABYTE not only strives to provide eco-friendly products but also invites consumers to participate in the programs combining sales and sustainability. For example, customers were invited to participate in 2021 G+ Earth Day event. For each product with Sweet Lemon label purchased by a consumer, GIGABYTE plants a tree for the planet in his/her name.

5 Happy Workplace

5.1 Human Resource Management and Talent Cultivation 5.2 Human Rights and Labor Relations Management 5.3 Occupational Health and Safety

Material Topics of This Chapter	Talents Cultivation and Retention (voluntary disclosure)	Labor Relations Human Rights, Equity and Diversity (voluntary disclosure)	Occupational Health and Safety
Management Approach	Enable every employee to work in a suitable position, build a diverse and balanced manpower structure, enhance workplace happiness and cohesion, and cultivate competence and power.	Strive for organizational justice, respect diversity and equality, strictly adhere to zero discrimination, anti-violence, and no harassment, and establish a workplace culture that values human rights.	Establish comprehensive environmental safety and health management measures to build a friendly and healthy working environment.
Policy and Action	▪ Plan education and training on the basis of competency development, professional training, and self-growth. ▪ Set up a performance examination process to ensure fair remuneration. The remuneration is adjusted between 0% and 4% every year according to job position and job grade. The low-level employees are given a higher adjustment rate. ▪ Establish a sound benefits system and a Joint Welfare Committee to enhance employee benefits and organize promotional events at appropriate times.	▪ Issue the "Code of Business Conduct" based on the RBA Code of Conduct to protect human rights in the workplace. ▪ Define the "Plan for Prevention of Illegal Infringements in the Performance of Duties" and "Statement on Prohibition of Workplace Violence" to eliminate bullying or violence in the workplace. ▪ Issue "Operating Instructions for Prevention of Sexual Harassment in the Workplace" and "Workplace Maternal Health Protection Plan" to promote gender-friendly workplaces. ▪ Establish multiple labor-management communication channels and hold labor-management meetings quarterly in accordance with the laws and regulations.	▪ Each business base establishes occupational safety and health management policies, including the "Occupational Safety and Health Management Plan", "Health Management Plan", and maternal protection measures. ▪ Promote Employee Assistance Programs (EAP) to provide completely physical and mental care for employees. ▪ Obtain the Sports Workplace Certification, launch family-friendly programs, and encourage exercising habits to build a happy corporate.
Vision and Goal	▪ Review the Company's development strategy and employee needs every year, and provide corresponding education and training resources. ▪ Maintain the appropriate turnover rate of indirect employees and stabilize the Company's human resource base. ▪ Continue enhancing benefits policy and promotional events.	▪ There were no complaints relating to human rights violations or sexual harassment and discrimination. ▪ Plan and implement measures to protect the reproductive health of women and physical/mental well-being in the workplace.	▪ Launch monthly 5S environmental safety examination and average assessment score is above 70. ▪ No cases of occupational injuries. ▪ No cases of occupational diseases. ▪ No cases of fire accidents, and lower the probability of occurrence of all types of safety incidents. ▪ Hold health-promoting seminars and events at least twice per year.
2021 Major Achievement	[●] Continued conducting a wide range of education and training activities either in-person or online. In 2021, 401 seminars and classes were held with 7,713 participants. [●] Average turnover among indirect labor at operating locations in Taiwan was 0.99% with a reduction by 0.06%.	[●] There were no human rights complaints or cases of sexual harassment and discrimination at GIGABYTE during 2021. [●] 4 labor–management meetings were convened in 2021 as required by law. [●] Breast-feeding room was used 2,790 times in 2021, and 15 employees applied for parental leave. [●] Additional childcare subsidies were introduced in 2021. Employees with children under the age of 2 received NTD 3,000 per child each month and 2 hours of flex-time.	[●] Conducted 5S audits 12 times during 2021 and the target average monthly score was achieved. Audit outcomes were published internally as a reminder for each unit to make improvements. [●] There was 1 incident of occupational injury at Headquarters and 3 incidents of occupational injuries at the Ningbo Factory in 2021. [●] There were no employees with occupational disease in 2021. [●] There were no incidents of fire in 2021 and emergency evacuation and disaster prevention training was conducted 25 times. [●] EAP consultation services were accessed 275 times during 2021. 10 seminars and events were also held. [●] More than 2 health promoting events were held in Taiwan during 2021.

[●] Stage objective completed [●] In progress [○] Not yet implemented [●] Stage objective not yet achieved

5.1 Human Resource Management and Talent Cultivation

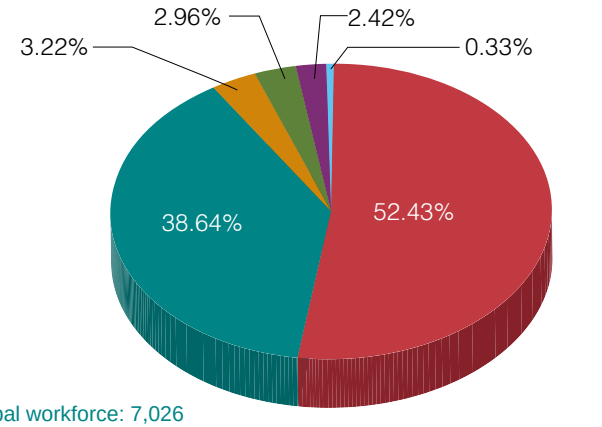
5.1.1 Sound Human Resource Structure

GIGABYTE knows how important that people with the right talents are to the sustainable development of the company. Rigorous talent selection and cultivation are therefore employed to construct a diverse and balanced human resources structure. Talented people from diverse backgrounds are also encouraged to unleash their expertise, creativity and potential in their work. At the end of 2021, GIGABYTE had a global workforce of 7,026 people with male employees accounting for 56.2% and female employees accounting for 43.8%. The average age was 34. A total of 35 disabled employees and 12 indigenous employees were employed in Taiwan at the end of 2021.

		Taiwan Bases		China Bases		Overseas Bases		G-Style		GIGAPIC		Bestyield International	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No. of Employees		1,314	1,404	1,699	1,174	882	471	0	4	39	15	14	10
Gender Ratio		48.3%	51.7%	59.1%	40.9%	65.2%	34.8%	0%	100%	72.2%	27.8%	58.3%	41.7%
Age Ratio	Under 30	7.8%	11.9%	47.3%	31.7%	24.9%	11.8%	0%	0%	13.0%	13.0%	12.5%	8.3%
	30–50	32.5%	31.8%	11.1%	8.8%	39.3%	22.8%	0%	100%	51.9%	14.8%	45.8%	33.3%
	Over 50	8.1%	8.0%	0.6%	0.4%	1.0%	0.2%	0%	0%	7.4%	0%	0%	0%
Position Type Ratio	Management	18.1%	6.3%	7.9%	3.6%	14.6%	5.4%	0%	0%	29.6%	7.4%	33.3%	12.5%
	Specialist	30.3%	45.4%	51.5%	36.9%	50.6%	29.4%	0%	100%	42.6%	20.4%	25.0%	29.2%

[Note] Due to organizational restructuring, G-Style subsidiary had 0 male employees on December 31, 2021.

◆ Global Employee Distribution



◆ Total Number of Employees by Contract type and Role

Unit: Person

		Taiwan Bases		China Bases		Overseas Bases		Subsidiary					
								G-Style		GIGAIPC		Bestyield International	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Employment Type	Full-time	1,293	1,395	1,699	1,174	848	454	0	4	38	15	14	10
	Part-time	21	9	0	0	34	17	0	0	1	0	0	0
Employment Contract	Full-time	1,293	1,395	1,699	1,174	848	454	0	4	38	15	14	10
	Temporary	21	9	0	0	34	17	0	0	1	0	0	0

The definitions of employment type and contract are as follow:

Employment Type	Full-time	Expatriate personnel/Permanent employee/R&D alternative service/Consultant
	Part-time	Contractor/Part-time worker/Intern
Employment contract	Full-time	Expatriate personnel/Permanent employee/R&D alternative service/Consultant
	Temporary	Contractor/Part-time worker/Intern

◆ Statistics of New Employees

Unit: Person

	Taiwan Bases		China Bases		Overseas Bases		Subsidiary					
							G-Style		GIGAIPC		Bestyield International	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Under 30 Years Old	104	78	3,267	1,862	102	54	1	0	4	7	1	2
31~50 Years Old	77	70	167	198	35	32	1	0	6	2	0	0
Over 50 Years Old	1	3	0	1	3	0	0	0	0	0	0	0
New Employee Rate	12.32%	9.75%	61.38%	67.86%	13.92%	15.22%	6.06%	0.00%	23.26%	52.94%	5.88%	16.67%

[Note 1] The total number of new employees includes direct and indirect employees.
[Note 2] The new employee rate at G-Style was relatively low due to organizational restructuring.

◆ Statistics of Resigned Employees

In 2021, 95% of resigned employees were voluntary. The most common reasons for resignation were family reasons, continuing education, and further study.

Unit: Person

	Taiwan Bases		China Bases		Overseas Bases		Subsidiary					
							G-Style		GIGAIPC		Bestyield International	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Under 30 Years Old	74	71	3,739	1,652	85	48	3	9	2	2	3	2
31~50 Years Old	82	55	150	194	54	34	28	18	0	1	0	0
Over 50 Years Old	7	21	1	4	3	0	1	1	0	2	0	0
Resignation Rate	11.04%	9.49%	69.53%	60.92%	14.12%	14.51%	96.97%	93.33%	4.65%	29.41%	17.65%	16.67%

[Note 1] The high personnel turnover rate in China bases was mainly due to the expiration of contracts with winter vacation workers and interns. A large number of employees left jobs to return to hometown before Spring Festival, and thus the recruitment increased to balance the need of manpower.
[Note 2] The resignation rate of G-Style was very high due to organizational restructuring.

5.1.2 Talents Recruitment and Retention Management

GIGABYTE defines a clear set of criteria for recruitment. We look for multi-national and multi-disciplinary talents based on the development focus of each business unit and department. The cultivation of the younger generation is important to us as well. We establish industry-academia cooperation programs with colleges and universities, organize long-running product design competitions that provide students with a stage to showcase their knowledge and creativity, expand their horizons on career possibilities, and enrich their practical experiences. GIGABYTE provided internship opportunities to 5 students from the National Taiwan University of Technology in 2021.

A sound welfare and training system is also a crucial factor to attract talented people and manifest our emphasis on talents. GIGABYTE respects employees' needs and development and offers benefits, leave policy, diverse courses, and incentive schemes that exceed the statutory requirements to enable each employee to find self-fulfillment and then make a contribution to society.

Forward-looking Employee Education and Training

In terms of talent cultivation, GIGABYTE developed competency-based training courses for new hires, specialist personnel, and section/division-level managers. A variety of learning channels are provided, and self-study/external training are encouraged for employees so they can engage in self-development, broaden their professional knowledge, as well as understand the company's vision for the future and current accomplishments. Sharing events are also held at suitable times to let employees learn from each other. In addition to on-the-job employee training, GIGABYTE develops exclusive training courses for newcomers based on the needs of each operation base or each position. The courses help newcomers adapt more quickly to their work and environment.

Education and Training

GIGABYTE provides themed courses for new employees. They are also assigned mentors to help them settle into their new roles.

- Company introduction
- Brand and corporate identity
- Sustainability and environmental policy
- Code of business conduct
- Authorized Economic Operator (AEO)
- Intellectual Property and Personal Information Act guidelines
- Labor health and safety education
- Human resources, administrative services, invoicing process, etc.

Professional Training

Competency is critical a successful work. GIGABYTE defines 6 core competencies all employees shall have, as well as additional 5 management competencies that personnel at management positions shall have. Related courses are provided in order to train talent and cultivate organizational culture.

E-Learning Platform

Digitize the internal training and lectures of all units and support online course selection to allow the employees to learn at any time.

Feedback and Review

Knowledge Cycle and Feedback

- Train internal lecturers and hold sharing sessions from time to time.
- Encourage the colleagues of all units to share their external training experience to benefit both teaching and learning.

Review of Training Performance

- Truthfully implement opinion surveys to check the benefits of the curriculum for career development and personal competence.
- Encourage employees to plan new task objectives or processes based on training content.

6 Core Competencies

- Innovation and improvement
- Problem solving and analysis
- Self-learning and development
- Cost and quality awareness
- Communication and coordination
- Teamwork

Continuous Advance Learning

- Internal training of BU
- Trend lectures and technology forums
- Professional education of legal affairs and financial accounting
- Foreign language learning resources and allowances
- External education training allowances
- Encourage employees in self-learning

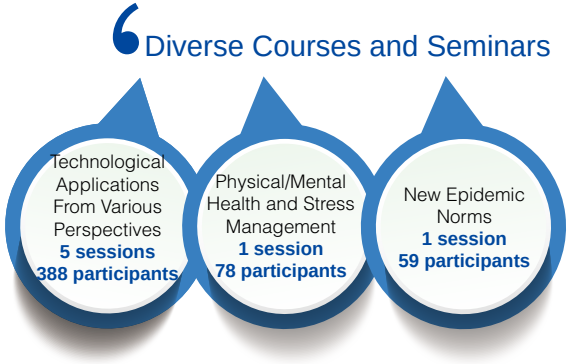
5 Management Competencies

- Target setting
- Empowerment and delegation
- Communication and leadership
- Clear reward and punishment
- Leading reformation

Management Education

- Annual senior-level consensus meeting
- Lecture for senior level manager
- Training for division-level manager and new manager
- Talent recruitment and interview skills, etc.

The HR Department draws up internal training courses every year following industry trends and the Company's future direction and also cultivates the soft power for career development and work management. It handpicks articles that assist employees in career planning, self-management, and the development of concrete goals and visions, which then help strengthen the cohesion between units and individual employees. In 2021, a total of 7 seminars were held. 32 articles with regards to quality awareness, HR guide, successful career, workplaces, and 5G pioneer were also picked to uplift career nutrients for employees to build up a better future for themselves and their teams.



◆ Average Training Hours of Employees

Unit: hours

Average Training Hours	Taiwan Bases										China Bases			
	Headquarters		Nanping Factory		G-Style		GIGAIPC		Bestyield International		Dongguan Factory		Ningbo Factory	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
By Gender	6.78	4.65	14.62	7.16	3.10	4.17	5.90	2.67	8.58	9.85	1.73	1.60	5.06	3.89
By Base	5.91		9.03		3.50		4.69		9.04		1.69		4.66	
By Job Position - Management Position	6.67	4.07	14.21	18.38	3.83	N/A	5.67	N/A	13.22	26.83	3.20	3.99	10.36	8.27
By Job Position - Professional Position	6.85	4.84	14.75	6.72	2.00	4.17	5.96	2.67	3.94	2.57	1.30	1.15	4.76	3.56

Solid Remuneration Structure

GIGABYTE's remuneration system is determined based on the job position, education level, work experiences, and service year, as well as the result of performance evaluation of each employee. This is to ensure that the remuneration truthfully reflects the employee's contribution. For detailed information on the distribution of employee and directors' remuneration, please refer to GIGABYTE 2021 Annual Report. GIGABYTE introduced and conducted the performance evaluation system at G-Style and Bestyield International in 2021. The system will be progressively rolled out to all subsidiaries. In addition to the basic salary, GIGABYTE offers a variety of incentives and welfares such as seniority awards, patent awards, quarterly bonuses, as well as performance bonuses in order to encourage outstanding employees. These can also stimulate inner enthusiasm and share the success of GIGABYTE with all of our employees.

Appreciation for Employees' Contributions

- The averaged service years of retired employees was 19 years
- 416 employees received awards for more than 5 years of service

Innovation Reward

- 124 employees received patent awards

◆ Number and Proportion of Employees Participated in the Year-End Performance Evaluation

Operation Bases	Taiwan Bases										China Bases			
	Headquarters		Nanping Factory		G-Style		GIGAIPC		Bestyield International		Dongguan Factory		Ningbo Factory	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Management Level	91.35%	97.79%	78.57%	97.06%	N/A	N/A	Performance audit system not introduced		100%	100%	36.15%	52.78%	19.39%	29.41%
General Level	86.94%	89.80%	79.80%	17.47%	N/A	0%			100%	100%	2.84%	1.10%	1.26%	0.48%

The following personnel does not take part in the year-end evaluations so was not included in the above statistics:

1. Senior managers above grade 8.
2. Grade 1 personnel such as part-time workers, production line workers, and operators.
3. The employees who have served for less than 3 months.

◆ The Ratio of the Average Salary of GIGABYTE Basic-level Employees to the Local Minimum Wage

	Taiwan Bases										China Bases			
Currency	NTD										RMB			
Operation Base	Headquarters		Nanping Factory		G-Style		GIGAIPC		BYTE International		Dongguan Factory		Ningbo Factory	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Ratio of Basic Salary and Local Minimum Wage	1.15	1.18	1.20	1.08	N/A	1.80	2.20	1.40	1.77	1.56	1.60	1.64	1.43	1.43
Local Minimum Wage in 2021	NTD24,000										RMB1,920		RMB2,280	

[Note 1] The salary above is the full-time salary of basic-level personnel excluding bonuses, overtime, and stipends.
[Note 2] Due to organizational restructuring, G-Style subsidiary had 0 male employees on December 31, 2021. The ratio between male employee salaries and local minimum wage is therefore shown as N/A in the table.

◆ Male and Female Remuneration Ratio [1] and Range of Salary Adjustment by Business Locations

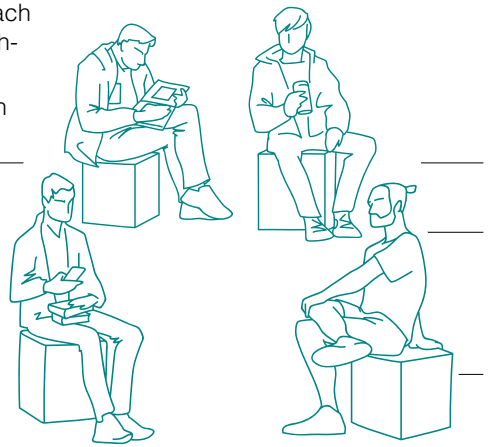
Job Grade [2]		Taiwan Bases										China Bases			
		Headquarters		Nanping Factory		G-Style[4]		GIGAIPC		BYTE International		Dongguan Factory		Ningbo Factory	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Management Position	Senior Level Manager	1.20	1	No female employees at present		No male employees at present		No female employees at present		No female employees at present		1.03	1	1	1
	General Level Manager	1.01	1	1.16	1	No male employees at present		1.05	1	1.18	1	1.01	1	1.04	1
Professional Position	Senior Level Engineer	1.32	1	No female employees at present		No male employees at present		No female employees at presentt		No female employees at present		0.76	1	No female employees at present	
	General Level Engineer	1.00	1	1.28	1	No male employees at present		1.75	1	1.38	1	1.02	1	1.02	1
Average Adjustment of Salary[3] in the Past 3 Years		4.1%		3.3%		3%		3%		3%		11.6%		11.0%	

[Note 1] Remuneration: The total pay to full-time personnel, including bonuses, overtime, and stipends.
[Note 2] Job Grade: Senior level manager (job grade above M06); General level manager (job grade between M01 and M05); Senior level engineer (job grade above P06); General level engineer (job grade between P01 and P05)
[Note 3] Average Salary: The salary includes basic salary, living allowance, food allowance, etc., excluding annual bonuses.
[Note 4] Due to organizational restructuring, G-Style had 0 male employees on December 31, 2021. The ratio of male to female salaries was therefore no data in the table.

Sound Employee Welfare and Retirement Plans

A sound benefits system has been put into place by GIGABYTE. In addition to providing statutory insurance, leave, pensions, and health exams, we also provide a number of better than statutory benefits to construct the most comprehensive support network for employees. A Joint Employee Welfare Committee has now been established to increase happiness in the workplace by enhancing the benefits policy and promotional events for employees at appropriate times.

Project	Description
Perfect Insurance Plan	▪ Labor insurance, national health insurance, and group comprehensive insurance, including life insurance, accident insurance, medical insurance, catastrophic illness insurance, etc. Group insurance is also applicable to employees and their families.
Pensions	▪ Allocate employees' retirement reserves in accordance with the Labor Standards Act and the Labor Pension Act, and an account in the name of "Employee Pension Reserve Supervision Committee" is established as an exclusive account for employee retirement funds. ▪ Provide retirement bonuses and hold honorable retirement ceremonies.
Comprehensive Healthcare	▪ For current employees with at least 2 years of service, those over 40 years old are eligible for taking a health exam each year, and those under 40 years old are eligible for taking a health exam every two years. Senior executives and high-risk employees are provided further health exam subsidies. ▪ The Employee Assistance Program (EAP) provides psychological, financial, and legal advice to help employees with their life and mental well-being.
Leave System	▪ Make-up shifts are instituted for public holidays to provide employees with flexible leave time.
Living Allowance	▪ Provide childbirth, hospitalization, funeral, marriage, education allowances, as well as emergency assistance. ▪ Additional childcare subsidies were introduced in 2021. Employees with children under the age of 2 received NTD3,000 per child each month and 2 hours of flex-time.
Living Benefits	▪ In addition to the basic 3 Festival bonuses, the Company also provides birthday gifts and travel allowance. Also, a certain number of benefit points are offered to employees each year which allow them to freely purchase charity products and friendly agricultural products. The benefit points was NTD8,000 per person in 2021.
Employee Discounts	▪ Sign contracts with restaurants and childcare institutions to provide referential prices to GIGABYTE employees. ▪ Provide discounts on the company's products, concerts, exhibitions, performances, or related ticketed events and free arts and culture seminars.
Club and Leisure Activities	▪ GIGABYTE establishes a wide variety of clubs on sports, dancing, environmental services, and handicrafts. Besides, we organize leisure activities such as e-sports competitions, sports carnivals and family days to foster employee interests and networking.



5.2 Human Rights and Labor Relations Management

Commitments and Actions of Humans Right at Workplace

GIGABYTE supports international human rights conventions and complies with the local regulations of our operating locations. We have defined a number of human rights rules. For example, " strive for organizational justice, respect for diversity" and "anti-discrimination, violence and harassment" are included in our Code of Business Conduct. All board directors, managers and employees are expected to protect human rights in the workplace by adhering to human rights and equality. There were no human rights complaints at GIGABYTE in 2021.

(For GIGABYTE's code of workplace human rights, please refer to Chapter 2 of GIGABYTE Code of Business Conduct)

Human Rights Commitment	Actions
Talent Inclusion and Non-discrimination	▪ Stipulate clearly in the Code of Business Conduct: The recruitment and promotion of employees do not distinguish between race, gender, age, skin color, sexual orientation, language, religion, party, place of origin, nationality, physical and mental disabilities, and marital status. ▪ Hire physically or mentally handicapped which accounts for at least 1% of the number of employees in GIGABYTE's bases in Taiwan and G-Style, complying with the "People with Disabilities Rights Protection Act" issued by the Ministry of Health and Welfare.
Prohibition against forced labor and employment of child labor	▪ Suppliers are required to comply with regulations relating to the human rights of workers in accordance with the RBA Code of Conduct and to undergo investigation on conflict mineral usage. ▪ Stipulate clearly in the Employment Management Regulations that do not employ people under 15 years old as well as child labor above 15 years old but under 16 years old.
Prevention of illegal infringement in the workplace	▪ Define "Plan for Prevention of Illegal Infringements in the Performance of Duties" and procedures and issue the "Written Statement on Prohibition of Workplace Violence" to protect employees against bullying or violence in the workplace.
Gender Friendly Workplace	▪ The "Guide on Prevention of Sexual Harassment in the Workplace" specifies that any employees who believe they have been sexually harassed may file a complaint with their supervisor, HR department, or the dedicated mailbox. Their complaint will be handled in strict confidence. If the complaint is investigated and upheld then disciplinary action will be taken against the offender and may result in termination of employment in serious cases. There were no sexual harassment or discrimination cases in 2021. ▪ Plan the maternal health protection plan of the workplace, and set up friendly facilities such as nursery rooms. (For details of implementation status, please refer to 5.3.2 Healthy and LOHAS Workplace)
Fair Salary	▪ Determine the standard of salary payment through open and transparent performance evaluations. The wage levels of all operation bases are higher than the local legal minimum wage.

Smooth Communication Channels between Management and Labor

Good communication between management and labor is on the basis of mutual trust and mutual assistance. Although GIGABYTE does not have a labor union, we enhance the labor-management interaction and communication through regular labor-management meetings, division-level management discussions, online article promotion, and annual questionnaire surveys every year.

Communication Channels	2021 Communication Outcomes	2021 Communication Focuses (extract)
Labor and Management Meeting	Labor-management meetings were convened quarterly as required by law. In 2021, a total of 4 sessions were held.	1. COVID-19 epidemic prevention management measures education. 2. Monitoring of labor laws and updating of internal management rules. 3. Rise of employee benefits such as reward points and scholarships. 4. Additional childcare benefits and promotion of a parent-friendly workplace.
Internal Web	Ad hoc	Announce important information by the Company. Promote relevant events.
Internal Newsletter "GIGA HI"	24 articles	Report the outcomes of the company's events and highlights of past seminars.
HR Website	32 articles regarding career development. 52,406 view times to the Webpages.	Guide employees about the company's development direction. Provide employees with information on career development.
Employee Message Board	Ad hoc	Set user rules and a reviewing mechanism to prevent personal attacks and rumors, so that employees can ask questions or post comments based on their needs.
Employee Satisfaction Survey	Conducted once a year at Headquarters. Conducted monthly at Nanping Factory. Conducted at various times at China plants.	Focus on health care, security, cleaning, and other common services in order to continue improving equipment and services offered by the company.

5.3 Occupational Health and Safety

5.3.1 Environmental Safety and Health

GIGABYTE Headquarters, Taoyuan Nanping Factory, as well as the Dongguan and Ningbo Factories in China have all obtained ISO45001:2018 Occupational Health and Safety System certification. The scope of management includes employees, on-site contractors, visitors, and any personnel near the workplace that may affect organizational activities.

A permanent OHS contact point was established in each business group to ensure effective OHS management. The Occupational Health and Safety Committee was also set up, which are composed of Group Operation Management Center, business units, subsidiaries, as well as labor representatives of which the number account for more than one-third of the committee members. The OHS Committee is convened quarterly to examine OHS management policy and matters, and to continue optimizing and managing the OHS risks at the company to ensure a safe and hygienic working environment for employees.

At present, GIGABYTE's Occupational Safety and Health Management Plan can be subdivided into 16 items, including workplace hardware testing, operating standards setting, education and training, health promotion, disaster response, etc. Each item is reviewed and audited every year.

◆ Composition of Occupational Health and Safety Committees

	Headquarters	Nanping Factory	Dongguan Factory	Ningbo Factory
No. of Labor Representatives	8	11	12	9
No. of Registered Members	21	33	33	34
Labor Ratio	38.10%	33.33%	36.36%	26.47%
			Not subject to the regulations in Taiwan	

◆ Occupational Safety and Health Management Plan

Reduce Occupational Injury and Promote Labor Safety and Health

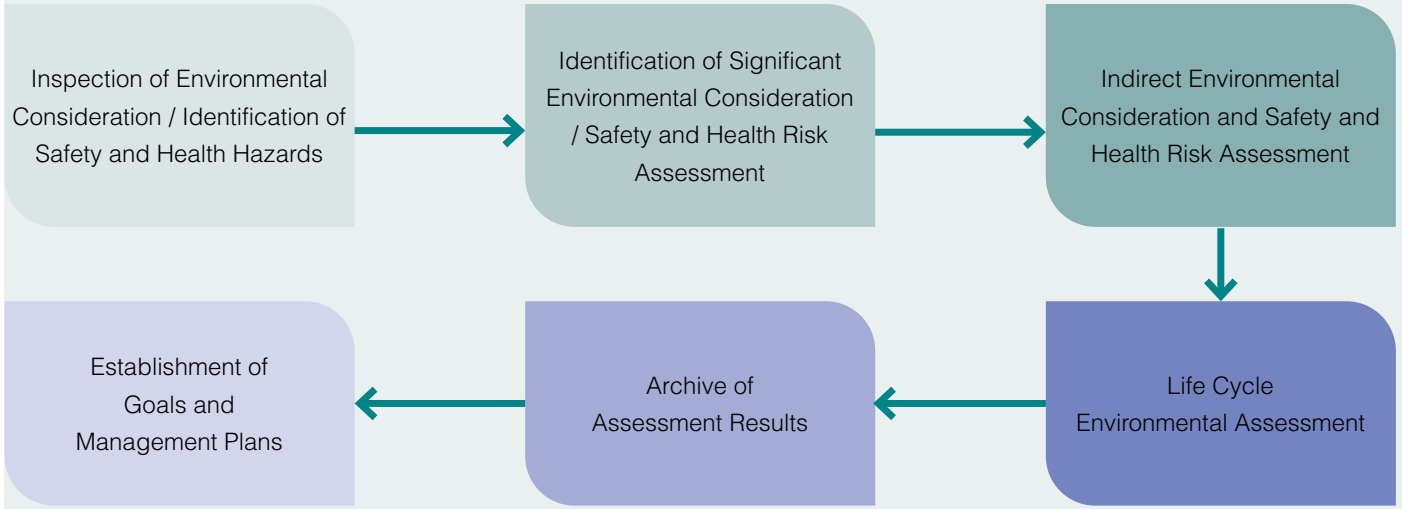
Eliminate Workplace Risk Factors and Achieve Zero Accident Case

- **Operational Environment Monitoring**
  - Identification, evaluation, and control of work environment or harmful processes.
  - Planning and monitoring of the sampling strategy of harmful operating environments.
  - Process or construction safety assessment items in dangerous workplaces.
  - Management and implementation of personal protective equipment.
- **Automatic Inspection and Equipment Maintenance**
  - Management of machinery, equipment, or hardware.
  - Regular inspections, key inspections, operation inspections, and site patrol inspections.
- **General Knowledge of Dangerous Items and Hazardous Substances**
  - Classification, labeling, general knowledge, and management of hazardous chemicals.
- **Safety and Health Education and Training**
  - Hosting of safety and health education and training.
  - Collection, sharing, and use of safety and health information.
- **Contractor Management**
  - Procurement management, contract management, and updates of management matters.
- **Health Management**
  - Health examination, management, and promotion.
- **Other Management Matters**
  - Emergency response measures.
  - Processing and analysis of occupational accidents, false alarms, and the events affecting physical and mental health.
  - Safety and health management records and performance evaluation measures.
  - Safety and health standards.
  - Identification and verification in accordance with Environmental Safety Act.

Occupational Safety and Health Risk Management

Comprehensive identification of occupational safety and health risks helps to detect potential hazard factors early, and annual management plans assist in controlling and eliminating the factors. GIGABYTE defines risk assessment processes, which are then periodically assessed by the OHS contact point in each business group. The assessments cover operational frequency, work flow, equipment and materials used, and operating environment. Risks are divided into 4 levels according to the assessing results. Further assessment of whether the Company's current operating control procedures are sufficient to respond to the listed risks are then conducted. When necessary, a management process will be adjusted according to the identification results to prevent the occurrence of occupational accidents.

◆ Process and Results of Occupational Safety and Health Risk Assessment



◆ 2021 Potential Risk Accident Classification Table

High ← – → Low

Risk Classification	Level 1	Level 2	Level 3	Level 4
Number of Cases	5	61	2	9

After risk identification, GIGABYTE first reviews the existing operation management process to confirm the integrity of the Company's existing regulations and starts improvement of the discovered management gaps. We will continue to manage occupational safety and health risks through PDCA processes in order to provide employees with a safe and healthy working environment.

Implementation Methods and Outcomes

Operational Environment Monitoring

In accordance with statutory requirements and the work type in each unit, GIGABYTE monitors CO_2 concentrations and brightness in the workplace environment along with isopropanol, tin, and noise generated due to operational requirements. We also conduct voluntary monitoring of ambient radiation and equipment temperature. Monthly 5S audits are also conducted to examine environmental problems and deficiencies in a timely manner. Every effort is made to ensure the safety of the operational environment for all workers.

GIGABYTE voluntarily tightens the maximum allowable CO_2 concentration by reducing the threshold for working environments from the statutory limit of 5,000 ppm to under 1,000 ppm on each floor.

A surge in operational requirements resulted in the ambient noise in the product verification laboratories reaching 88.8 dB in the second half of 2021. Although it is lower than the statutory limit (90 dB), we still made an immediate improvement. After installing noise-absorbing foam and partitions in the laboratories, the level of ambient noise reduced by 7~11 dB. At the same time, hearing tests and health education were conducted among the employees who have to work in noisy areas for a long time.

Automatic Inspection and Equipment Maintenance

GIGABYTE implements automatic inspection and maintenance every year for 5 major equipment, such as high-pressure gas containers, local exhaust facilities, as well as constant temperature and humidity equipment, to ensure stable operation of equipment and operators' safety.

General Education on Dangerous and Hazardous Substances

The EHS Division audits the storage location, labeling condition, and document management of the Company's chemicals and hazardous substances every year and builds up a risk map according to the results which can also help improve the defects. In Addition, it provides high-risk employees with hazardous substances operation management, organic solvents, and chemicals general knowledge courses. Enhanced training is also provided to operations managers in order to strengthen the employees' sensitivity to staying away from potential chemical injuries.

Safety and Health Education and Training

Prize quizzes, EDM, education and training are used by GIGABYTE to raise employees' hazard awareness and disaster response skills. In addition to mandatory OHS training for newcomers, current employees are also given training to obtain certifications (first-aid, fire safety, organic solvent operations supervisor) required by law. The cultivation and training of cadre personnel along with OHS management system evaluations and audits are conducted as part of ISO management system activities.

Training Courses and Attendance		
	Taiwan Bases	China Bases
Basic Safety and Health Training (including basic training and newcomer training)	22 sessions / 462 trainees	8 sessions / 370 trainees
Evacuation and Disaster Prevention Training	18 sessions / 2,052 trainees	7 sessions / 1,388 trainees

Contractor Management

GIGABYTE requires all contractors (including caterers, security, cleaning and personnel stationed on-site for extended periods) to sign the "Guidelines of Contractor Management" and reminds them of basic precautions. The work instructions specifically for working in constrained spaces or special operations are also provided when contractors enter the workplace. Contractor occupational disaster surveys are conducted monthly. In 2021, contractor training was conducted 750 times and there were 0 case of occupational injuries related to contractors.

Health Management

Please refer to 5.3.2 Healthy and LOHAS Workplace

Emergency Response Measures

"Familiarity with every action is essential for rapid response and prevention of casualties in an emergency." There has been a number of serious fire incidents in Taiwan in recent years. In addition to hosting static seminars on disaster prevention knowledge, GIGABYTE focused on fire safety drills for all employees and developing a series of disaster prevention measures. Training for personnel in the self-defense fire organization was also enhanced to ensure their operational effectiveness, proper division of labor, and proficiency in carrying out their missions. GIGABYTE is a member of New Taipei City Government's corporate disaster prevention program. In 2021, we assisted with disaster prevention training at Zhongshan Village in New Taipei City to do our part in national disaster prevention.

- December is designated as "Fire Safety Month" with EDM and posters issued to promote disaster prevention concepts. Prize quizzes were hosted to ensure a proper employee mindset on disaster prevention.
- Emergency fire and evacuation drills were held without warning. Fire scenarios and simulated smoke were used to improve training realism.
- Conducted hose training to enhance real-world response skills.
- Emergency supplies were cached on each floor. Water, emergency rations and emergency tools were provided in case of an emergency.

Occupational Injury and Disaster Statistics

In 2021, 1 reportable occupational injuries case occurred in GIGABYTE's Headquarters and three factories. The case in this year was a minor work-related injury. Educational articles and personnel training were immediately instituted. The design unit was also notified to engage in corrective action for the reason and electives.

	Headquarters		Nanping Factory		Dongguan Factory		Ningbo Factory	
Occupational Injury Category	Number of the injured	Ratio[1]	Number of the injured	Ratio[1]	Number of the injured	Ratio[1]	Number of the injured	Ratio[1]
Fatal Occupational Injury	0	0	0	0	0	0	0	0
Severe Occupational Injury	0	0	0	0	0	0	0	0
Recordable Occupational Injury	1	0.31	0	0	0	0	3	1.27

[Note 1] The ratio is calculated based on per-million-work-hours.

5.3.2 Healthy and LOHAS Workplace

GIGABYTE builds a safe and friendly working environment for employees. We actively help employees to identify their own physical and mental health risks through a comprehensive health management plan, and provide tracking and improvement resources to enable employees to ascertain personal health management while contributing to the Company wholeheartedly at the same time. GIGABYTE hopes that every employee is healthy and happy.

◆ GIGABYTE Health Management Plan

Tiered Management of Employee Health	▪ Provide services including health exams, physician consultations, and occupational disease prevention and treatment ▪ Establish a tiered health risk system and devise management actions for each level ▪ Track health status and promote health improvement for employees with high health risks
Comprehensive Health Exams	▪ Provide a variety of bonus packages for special health exams ▪ Encourage particular groups to take early health exams and improve health by offering health exam subsidies ▪ Effectively track employees who do not take health exams
Health Promotion	▪ Provide health education and medical information regularly and host health seminars and activities ▪ Flu vaccination ▪ Hold health-promoting activities for specific groups, e.g. LOHAS exercise courses for executive managers and core strength courses
Healthcare	▪ Provide emergency first-aid, follow up and support ▪ Replenish clinic and first-aid kits ▪ Emergency response to the pandemic ▪ Maternal health protection plan in the workplace
Employee Assistance Programs(EAP)	▪ Continue distributing articles and EDM on diverse topics ▪ Host seminars, workshops, and family excursions ▪ Increase the level of EAP support and happiness of employees

Disease Prevention and Tiered Management

"Precision Prevention" is the core philosophy of GIGABYTE for employee health management. The promotion of health knowledge over e-mail, regularly updated health exams, as well as medical consultation resources at each location were used to help employees identify their own health risks and the corresponding symptoms early. Professional nursing personnel then track and reach out to high-risk groups to enhance physical health for all employees.

GIGABYTE provides health examination resources beyond the legal requirements and encourages employees to attend health exams through sustained education and monitoring. We also signs contracts with special clinics to provide additional preferential high-level health examinations at discounted rates, e.g. Heart Rate Variability (HRV), endoscopy, ultrasounds, and CAT. These give employees with alternatives to receive more thorough health information and protection.

Better than Statutory Requirement

- For employees with 2 or more years of service: provide a free health exam every 2 years
  For those aged 21–40: provide a free health exam every year and extra subsidies every 2 years for those aged over 41.

High-Risk Group

- Provide additional NTD5,000 per year for health exams or medical treatment.
- Actively contact employees with high health risks who have not taken health exams for more than 3 years or are living alone.

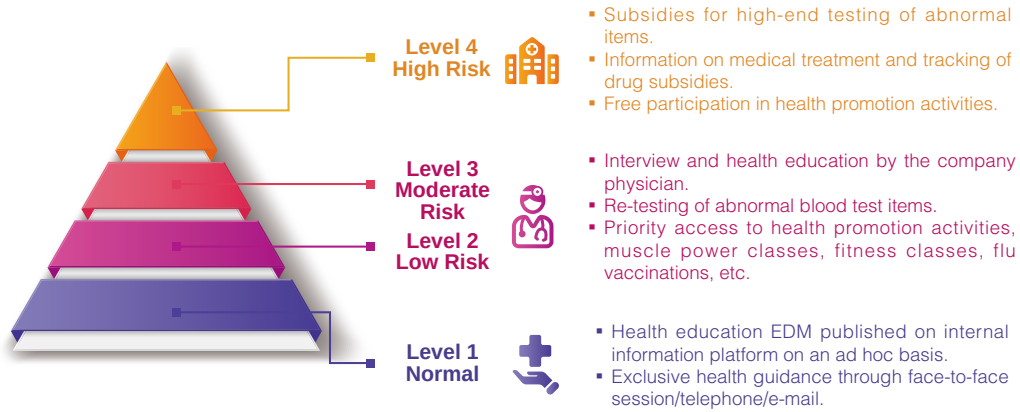
Families of Employees

- Enjoy the same health exam discounts and flu vaccination assistance as employees.

◆ Number of Employee Participating Health Exams and Examination Rate

	Headquarters	Nanping Factory	Dongguan Factory	Ningbo Factory
No. of Employee Participating Health Exam	1,282	Postponed and not implemented due to pandemic.	464	502
Examination rate	91%		100%	100%

After the annual health exam, the occupational nurses classify employees' health into 4 levels. For any employee or high-level manager whose key health index like blood pressure, total cholesterol, and triglyceride are classified into level 4 high-risk group, a special follow-up and management such as consultations and health tracking will be launched. In 2021, GIGABYTE invited senior managers and high-risk employees to take part in LOHAS exercise courses to encourage greater health awareness and get them into the habit of exercising. GIGABYTE will continue to adopt a variety of measures for employee health management and health promotion.



Overwork and Ergonomic Hazard Prevention

Most of the employees at GIGABYTE headquarters are "stationary office workers." Poor posture can easily result in musculoskeletal and eyesight damages. Workers in factories may experience pulled muscles and soreness from repetitive motion or heavy lifting. In view of that, GIGABYTE establishes the "Ergonomic Hazard Prevention Plan" and "Disease Prevention Plan for People with Abnormal Workloads" to ensure desks, chairs, lighting, and ventilation to be regularly checked for suitability and also track excessive work hours. Furthermore, through health exam reports, we identify the employees at risk of cardiovascular diseases, and change their working patterns or adjust their work hours according to the suggestions from doctors.

Occupational Disease Statistics

No occupational disease cases were reported at GIGABYTE's operational bases in 2021. We will continue to maintain a high standard of health management and realize the goal of "early prevention and sound treatment".

Occupational Disease Category	Number of Cases	Number of Affected Persons
Fatal Occupational Disease	0	0
Recordable Occupational Disease	0	0

Health Promoting Activities

Healthy exercise habits and health awareness is not just employees' own responsibility, companies shall also foster a healthy workplace culture. That is why exercising is promoted by GIGABYTE on top of basic disease prevention. We provide employees with fully equipped fitness centers and aerobics classrooms, and organize diverse health promoting activities to encourage employees to manage health management as well as exercise more for physical/mental well-being.

Influenza vaccination: 160 people

GIGABYE partnered with nearby clinics to let employees get quadrivalent influenza vaccinations directly in company without paying registration fee at a clinic.

Physical fitness testing

We partnered with the Sports Administration to conduct the "Technology Physical Fitness Test". The test covered physical composition, cardiovascular endurance, and grip strength and flexibility. Professional one-to-one coaching was provided after the test.

Health Awareness Month – My Health Card: 95 people

"My Health Card" helped employee log and come to terms with their own lifestyle so that they can increase their health promoting activities. We also hosted 3 health seminars with 218 participants, and cancer screening for 54 women.

Upgrade Your Body - Weight Loss Team Challenge

Being overweight or obese increases the risk of chronic illness. People today not only consume too much meat and fat, but are also less physically active. Research have found that weight loss improved health, so we held "Upgrade Your Body - Weight Loss Team Challenge" event in September 2021. Participants, registered in teams, supervised each other's diets and exercise habits to healthily lose weight and embrace a more nimble lifestyle.

- 124 people registered for the challenge and losses 376.3 kg in total

Gender Friendly Workplace

Nearly half of GIGABYTE's employees are female, and most of them are of childbearing age. Therefore, creating workplace facilities and systems friendly for females or employees with motherhood is our priority.

◆ Return Rate of Parental Leave

	Taiwan Bases		China Bases	
	Male	Female	Male	Female
Number of employees eligibal for parental leave in 2021	134	83	0	10
Number of employees applying for parental leave in 2021	3	8	0	4
Number of employees who shall return to the Job with job retained for baby care leave in 2021 (A)	1	6	0	3
Number of employees who actually returned to the job with job retained for baby care leave in 2021 (B)	1	6	0	2
Number of employees who actually returned to job with job retained for baby care leave in 2020 and work for more than 1 year (C)	0	4	0	3
Number of employees who actually returned to the job with job retained for baby care leave in 2020 (D)	0	5	0	4
Rate of return to job (B/A)	100%	100%	N/A	67%
Rate of job retained (C/D)	N/A	80%	N/A	75%

[Note 1] The statistics cover Taiwan bases (the Headquarters and Nanping Factory), China bases (Dongguan Factory and Ningbo Factory), as well as the subsidiaries with substantial influence in Taiwan: G-Style, GIGAIPC, and Bestyield International.

[Note 2] The number of people eligible for baby care leave is calculated by the number of employees with children under 3 years old based on the national health insurance data.

◆ Diverse and Complete Maternal Friendly Measures

Pregnancy Care

- Establish maternal protection measures. Dedicated nursing personnel regularly contact and care for pregnant employees.

Nursey Room

- Both the Headquarters and Nanping Factory set up nursery rooms, which locations are clearly marked and on main passageways. The Access is via swipe card for the safety of pregnant women and mothers. The rooms are equipped with refrigerators, basins, sofas, and heaters to provide female employees with a convenient and comfortable space.

  The use times of nursey rooms in 2021: 2,790

Childcare Subsidy

- Additional childcare subsidies were introduced in 2021. Employees with children under 2 years old and with Taiwanese citizenship can receive NTD3,000 per child every month. The employee may also apply for 2 hours of flex time.
- GIGABYTE signs contracts with qualified kindergartens nearby and provides subsidies in order to make employees convenient to drop off and pick up children.

Gender-friendly Parking

- Considering that the parking space around the Headquarters is limited, GIGABYTE sets up priority motorcycle parking exclusively for pregnant employees to avoid their risk exposures from looking for parking outside. This also loosens their stresses of getting to the office on time.

Employee Assistance Programs (EAP)

Besides building a safe, healthy, and LOHAS workplace, GIGABYTE pays attention to the daily problems our employees would face and their needs for psychological counseling. We partner with external organizations to provide advanced counseling services about mental, legal, and financial issues. Employees can take part in confidential consultations through the dedicated website, information hotline, and e-mails. In 2021, EAP conducted 275 consultations and average satisfaction was 4.3 (out of 5) in 2021.

GIGABYTE regularly provides topical columns and related seminars in response to situations that employees may encounter in life or at work. A total of 20 topical support e-newsletters and EDMs were distributed in 2021, along with stress management workshops, outdoor recreation, concerts and other activities. We hope make EAP a part of employees' work and life and would enhance their happiness and positive energy to embrace the future.

Stress Relief Workshop - Pour Over Coffee

Guiding by a professional counselor, employees learned to understand and adjust their own mindset through the process of brewing pour over coffee. The fun and nourishment of coffee helps them relax and unwind.

Stress Relief Workshop - Flower Arrangement

Employees practice flower arrangement as a way to exert control over their lives. Learning spending quality time with oneself has a spiritually healing effect.

Joy of Shallots at GIGABYTE

Employees learned about shallots and practiced making their own "Joy of Shallot Biscuits". Mini-games were also organized to introduce single employees to each other.

End-of-year Concert

A delightful musical extravaganza was held in the main lobby of Headquarters. Employees were treated a wonderful evening to thank them for their contributions over the past year.

Mountain Touring – Romance of the Grapes

Employees traveled to a mountain town in central Taiwan for a relaxing cycling tour and tried grape-picking and winemaking by their hands.

Physical and Mental Balance for High Performance in the Workplace Seminar

Guidance was provided by a professional psychiatrist on how to detect stress and moods. Employees were reminded that physical and mental balance should not be neglected during the pursuit of high performance.

6 Social Common Good

6.1 Social Caring and Technology Education 6.2 Cultivation of Sustainability Thinking and Environmental Care

Material Topics of This Chapter	Social Engagement and Technology Care (Voluntary Disclosure)	Sustainability and Environmental Education Ecological Conservation (Voluntary Response)
Management Approach	Combine the core competency of GIGABYTE to expand social participation and corporate influences on reducing the digital gap, innovating and cultivating talents, and caring for the disadvantaged.	Shape the awareness of sustainable development and environmental protection and strengthen citizens' environmental literacy to achieve the vision of overall sustainability.
Policy and Action	▪ The GIGABYTE Education Foundation is founded to be responsible for coordinating social participation and technology education projects. ▪ Serve as the general convener of the Lifelong Learning Promotion Alliance, and cooperate with NPO partners to carry out courses and workshops to strengthen capability. ▪ Jointly launch courses with various departments in the Company to design new courses that promote the idea of circular resources.	▪ Promote internal seminars, educational articles, and plastic reduction activities. ▪ Found a corporate volunteering club, GIGABYTE Go Green Club, and executed the "Thousand Mile Trek – Go Green Taiwan", a round-island clean-up plan. ▪ Adopt forest land and recruit the value chain partners to engage in reforestation and ecological rehabilitation. ▪ Establish G-HOME GIGABYTE Sustainable Eco-roof as an urban green island, and most of the plants grown at the roof are endemic and native species. The Roof was certified as an Environmental Education Facility and Field, and 2 courses were opened to the public. ▪ Continue to root climate and sustainability education in communities and schools.
Vision and Goal	▪ Continue hosting a variety of digital inclusion courses to disseminate technology knowledge. ▪ Embed technology education in rural areas and provide hardware where necessary to bridge the gap of digital resources. ▪ Promote technology courses such as 5G, circular economy based on the spirit "Mottainai", and face recognition. ▪ Provide the elementary schools around the Headquarters with technical supports to build a smart campus.	▪ Continue to promote the G-HOME environmental education courses and enlarge its influences. ▪ Retain the climate literacy educational programs to cultivate climate talents for Taiwan. ▪ Introduce the surrounding ecology to the employees, and practice environmental conservation through tree-planting and waste clean-up activities.
2021 Major Achievement	[●] The G-Design Competition was held for 19 consecutive years. More than a thousand students from the design field came together to develop ideas that take both caring and practicality into consideration. [●] Donated computer equipment to groups in need. A total of 183 computers were donated in 2021 and 434 computers have been donated to date. [●] Assisted schools in Xindian District where our Headquarters is located with setting up campus security systems and high-tech library system.	[●] A total of 89,399 trees have been planted by GIGABYTE as of 2021. More forestation efforts will be made in the future. [●] "Thousand Mile Trek - Go Green Taiwan" program picked up 2,885.63 kg of waste in 2021. [●] Only 1 session of environmental education was conducted with 18 participants due to the pandemic in 2021. [●] The Green Cli-Mate FUN! teaching plan was not implemented on campus due to the pandemic in 2021.

[●] Stage objective completed [●] In progress [○] Not yet implemented [●] Stage objective not yet achieved

6.1 Social Caring and Technology Education

"Upgrade Your Life" is the corporate purpose of GIGABYTE, and also the core vision of our commitment to social welfare - promoting science education with core capabilities while paying attention to humanistic development and sponsoring cultural or educational activities that benefit society.

In terms of science and technology education, in addition to the long-term product design contest and digital competence workshops, GIGABYTE also co-organizes a cross-disciplinary Transaction Award with the government and industry to actively cultivate slashies for the industry. Hardware resources are also provided to rural regions and disadvantaged group where appropriate. At the same time, GIGABYTE fully sponsors art and cultural activities and brings art into the community and the Company to cultivate humanistic literacy for the whole generation.

◆ Annual Performance and Initiatives in Social Philanthropy

Scholarships to Students Whose Family Experience Unexpected Events
Annual Donation NTD1,824,000

The GIGABYTE Education Foundation launches the year-end donation campaign at the end of each year to raise donations from GIGABYTE's employees and their families, children, and partners of GIGABYTE. The targets of donation are as follows:
(1) Providing scholarships to students who experience unexpected events in their families.
(2) Donating to the Children's Hearing Foundation to give early treatment for hearing impaired children from disadvantaged families.
(3) Donating to long-term care households and single-parent families.

The accumulated donation over the years was NTD25,680,000.

Double Caring Blood Donation
724 Donations during the Year

GIGABYTE has been recruiting blood donors in Taiwan since 2003. We have been recognized as an "Outstanding Blood Donation Organization" for 6 consecutive years. We offer food, beverage, rice and other supplies to replenish the energy of donating employees. The blood donation activities not only warm the heart but also warm the participants' stomachs.

The accumulative number of participants was 10,203 who have donated 3,839,000 c.c. of blood over the years.

Direct Purchase of Agricultural Products
Annual Group Purchase NTD4,800,000

GIGABYTE has been promoting the group purchase of direct selling agricultural products since 2002. GIGABYTE supports domestic agricultural products through purchasing directly from farmers, quick harvest during typhoon season, and when oversupply that may make prices plunge occurs. In this way, not only our staff can buy cheaper, safer, and fresher fruits and vegetables, we have also seen farmers' life improved and the value of agricultural products increased.

The cumulative group purchase over the years was NTD 29.242 million.

Spring Festival Red Envelops for Ragpickers
Sent out 391 Spring Festival Red Envelops

Since 2015, the GIGABYTE Education Foundation has passed on care and blessings to the people cleaning and collecting scraps, including elderly people living alone and physically handicapped people with limited mobility, etc. We believe that society will be warmer and more beautiful if everyone contributes a little love and action.

The accumulative number of red envelopes sent out over the years was 2,674.

Donation of Hardware
Donated 82 Notebooks, 100 PCs and 1 Server

GIGABYTE formed an alliance with other companies in 2015 to help rural areas, disadvantaged groups or organizations with related requirements obtain hardware and resources. The following hardware were donated by GIGABYTE in 2021:

- 50 notebook computers for elementary and junior high schools in Zhunan Township, Miaoli County, to help students connect to the digital world early and help disadvantaged students with their studies.
- 1 server, 100 PCs and 10 notebooks for the Liver Disease Prevention & Treatment Research Foundation to meet the hardware requirements of the Good Liver Clinic specializing in the treatment and prevention of liver disease.
- 22 refurbished notebooks in partnership with Bestyield International for Wenshan Second Precinct, Chiayi County Digital Learning Center, and Good Shepherd Foundation.

The accumulative number of computer products donated over years was 434.

Besides donations of money and in kind, active participation in charitable events and giving back to society is already a part of the culture at GIGABYTE. In 2021, for example, we booked a private screening of the ecological documentary Enigma: The Chinese Crested Tern. Our support of a film with tremendous eco-conservation value helped GIGABYTE employees learn more about the society and environment and in turn, learn how to cherish and promote the harmonious coexistence of humanity and nature.

Cultivate Technological Talents and Implement Digital Inclusion

As a technology hardware manufacturer at the forefront of technology and innovation, GIGABYTE firmly believes that everyone should have the opportunity and ability to experience the convenience and progress brought by technology. Therefore, the GIGABYTE Education Foundation has continuously promoted science and technology education in multiple forms since 2010, just like building a wonderful science and technology city in which people of different genders, age groups, education levels, and other backgrounds can experience the surprise and happiness created by the science and technology.

◆ 2021 Technology Education Formula City

Digital Charity

With the popularization of the digital age, GIGABYTE has also actively invested in the educational fields of digitally disadvantaged communities and ethnic groups, such as elders, foreign spouses, and children with rare diseases. We provide computer and mobile phone teaching classes and focus on topics based on the participants' interests, such as documents, cloud, multimedia, social software, and experience programs, so that every student can put what they have learned to good use.

Achievements in 2021: 36 sessions / 1,462 participants

Bring Technology to Campus & PC DIY

GIGABYTE not only opens the factory to students, but also actively enters the campus to provide with opportunities to learn about functions, composition, and operation of computer components, and through the DIY process to stimulate children's interest and impression of computer structure. We keep optimizing the teaching content, adding courses of Virtual Reality (VR) and Augmented Reality (AR) operations, and solar DIY to take root in campus technology quality.

Achievements in 2021: 133 sessions / 3,102 participants

Computer Doctor

The resources on the earth are gradually used up. every citizen of the world must understand the concept of the circular economy. In 2019, Bestyield International opened the "Computer Doctor" course aiming at turning over the students' impression of "recycling" and understanding its value and importance.

Achievements in 2021: 1 sessions / 55 participants

The Secret to Computers

GIGABYTE has opened the Nanping Plant in Taoyuan for schools to visit since 2002. It is still the only motherboard manufacturing factory in Taiwan that opened the production lines to the public for visiting. The types of visitors include elementary school summer camps, high schools, vocational schools, universities and colleges, and also expands to foreign visitors for learning. The Secret of Computers has become one of the most solid approaches for industry-university exchanges and unofficial diplomacy!

Achievements in 2021: 4 sessions / 192 participants

G- Design Contest

The Great Design Contest has been held for 19 consecutive years. It has an outstanding team of industry experts, and the contest themes are always closely related to the trend. The contest is student-oriented, providing handsome bonuses, and actively assists participants in patent applications. Therefore, it has become a well-known domestic science and technology creativity contest.

In 2021, the theme for the Innovative Technology group was "Care & Connect". Due to COVID, people are separated because of distancing modes. Contestants were expected to design an innovative product that enables people to be re-connected. The theme for the Better Life group was "Ironkids". The declining birth rates led to children being wrapped in cotton wool, denying them the opportunity to deal with threats and solve problems on their own. Contestants were asked to create products that can cultivate children's creativity and problem-solving experience.

Results in 2021: 364 entries received

Fun Play with IoT Summer Camp

Recently, various applications of the IoT are booming. By opening the "gate" of IoT, the sensors, and integrating the designing thinking processes, the camp trains students to be able to discover and solve problems, and also provide an opportunity to practice their digital imagination.

Suspended in 2021 due to COVID-19

(For more information regarding the G-Design Contest and its prizewinner, please refer to Great Design Official Website; for more exciting content of science and technology education, please refer to GIGABYTE Education Foundation Official Website)

6.2 Cultivation of Sustainability Thinking and Environmental Care

In 2017, GIGABYTE partnered with the Plant-for-the-Planet Foundation from Germany to launch the "Make Earth Green" project. 75,000 trees were planted in rehabilitated forest land in Mexico and 1,367 climate justice ambassadors were trained. As the project became more mature, GIGABYTE started thinking to bring the mission of tree-planting and climate education back to Taiwan in 2020. Thus we adopted local reforestized land and develop localized climate courses that combined with the sustainability education activities within the company and in the community. By doing so, we hope raise public awareness on sustainability, promote environmental care, and resist the impacts of climate change.

6.2.1 Deep Cultivation of Sustainability Thinking in Workplace

Communication and Cultivation of Sustainability Concepts

GIGABYTE publish "Sustainability e-Newsletter" on a monthly basis. It features a hand-picked selection of the most popular sustainability affairs at the time and offers prize quizzes. Employees were encouraged to support global environment theme days, or introduce GIGABYTE's sustainability policy and local/overseas sustainability trends in an entertaining manner. These encourage employees to think about sustainability topics and become willing to practice them in everyday work. News updates are also published on the GIGABYTE CSR website at different times to provide stakeholders interested in GIGABYTE with our latest sustainability information.

5-Minute Trivia Corporate: Corporate Governance 3.0

Responding to environmental theme days: Earth Day, World Water Day

Sustainable supply chain management: New management formula of QCSD+ESG

Xindian Joint Waste- and Dollar-Free Flea Market

GIGABYTE began hosting a flea market at Headquarters at the end of each year in 2019. In 2021, its scale expand to cover three themes, Circular Economy, Social Welfare, and Community Development, and invited external government, community and charity organizations to take part as well. The market in 2021 attracted more employee participation and donations. Around 80 residents also set up their own stalls/donated in kind. Nearly 2,000 people attended the event on the day. In addition to helping used goods find new owners instead of be thrown away, it also gave charity groups a chance to communicate their philosophy to the public. This was truly a meeting of goodness and goods!

Accomplishments in 2021

759	145	1,787.43 kg	643.47 kg-CO_2e
Number of donated items	Number of Donors	of Avoided Waste	Reduced/Avoided Carbon Emissions

6.2.2 Environmental Care Practice

Thousand-Mile Trek – Go Green Taiwan

"Follow our dream, protect our land, caring about all life" has always been the mission of GIGABYTE Go Green Club. In 2015, a group of nature lovers at GIGABYTE decided to venture beyond the office and launch the "Thousand Mile Trek - Go Green Taiwan" round-island trek. As of the end of 2021, we have completed 32 trips and walked 999.04km. Participants include families of employees as well as retired employees. Since 2019. GIGABYTE has also invited university/college teachers and students to join in the trek to draw more public attention to the environment.

Cumulative hours of environmental service: 29,153 hours
Cumulative waste picked and removed: 12,326.05 kg

(For more activity information and benefits please refer to GIGABYTE CSR website)

GIGABYTE G-Home Sustainability Eco-roof

"Sustainability" is rooted in humanity's peaceful coexistence, embrace and symbiosis with nature." The G-Home Sustainability Eco-roof was founded in 2013, of which the core concept includes three values: environment, employee, and life. That is, we sought to create an ecological oasis within the urban island where employees can connect with nature as well as promote ecological and lifestyle balance.

GIGABYTE gradually opened the rooftop for visit to employees' families, industry peers, government, education and other groups after its establishment. The roof was certified as an environmental education facility in 2017 and offered two courses related to circular economy and rooftop greening. The courses introduced visitors with corporate sustainability ideals and views. They can also take the knowledge back to their home or workplace and expand the influence.

People influenced: 3,317/Group visits: 425 organizations

The Ocean is Our Home

Picking up every piece of marine trash by hand symbolizes the pure commitment that GIGABYTE has made to the shoreline. GIGABYTE formally launched "The Ocean is Our Home" project in 2021 based on years of experience in beach clean-ups. It represents our long-term commitment to protecting the ocean. We applied to the competent authority to adopt the Shalun section of Dayuan's coastline on a yearly basis, and completed a coastal clean-up in 2021 that removed 895.8 kg of marine trash.

GIGABYTE also supports the "Project Blue 1095" program which is initiated by the Business Today and aims to recycle and transform marine trash into the new citizen sandals. At the end of September 2021, a coastal clean-up was held at Dingliao Beach on the north coast that removed 905 kg of trash; in early November, a coastal clean-up at Shihmen in New Taipei City removed 435 kg of trash. The eco-footwear specialists at "Lab22" collected and converted these marine trash into the trendy citizen sandals. We hope that by giving new value to marine trash we can fulfill the ideals of the circular economy. Our passion for environmental service also reminds society to emphasize source reduction and return a clean homes for marine life.

Appendix I. Sustainability Performance Summary in the Past 5 Years

Aspect	Main Index		2017	2018	2019	2020	2021
Economic Aspect	Consolidated Revenue (NTD 100 million)		598.84	609.24	617.81	846.03	1,219.05
	Operating Cost (NTD 100 million)		496.86	500.80	521.90	701.38	923.15
	Operating Expense (NTD 100 million)		79.73	78.48	81.35	102.47	151.04
	Employee Salary and Benefits (NTD 100 million)		57.06	55.99	53.44	69.14	107.23
	Earnings per Share (NTD)		4.41	4.04	3.05	6.88	21.01
Environmental Aspect	Greenhouse Gas Emission ($t\text{-}CO_2e$)[1]	Scope 1	553.05	661.29	657.63	648.09	1,063.52
		Scope 2	27,657.56	27,002.64	27,800.91	28,123.84	28,874.43
	Greenhouse Gas Emissions Intensity ($t\text{-}CO_2e$ / 1,000 motherboard equivalent pieces)		2.19	2.21	2.36	2.22	2.49
	Electricity Consumption (MWh)[1]	Headquarters, Taoyuan Nanping Factory, Taipei Silicon Valley Park Offices	18,830.08	18,572.70	18,524.16	18,995.40	20,674.18
		China Dongguan Factory, China Ningbo Factory	19,974.34	19,429.23	21,124.7	22,794.11	22,534.26
	Energy Consumption (GJ - including steam, gasoline, diesel fuel, LPG, and electricity)		147,519.66	147,514.21	150,922.69	154,879.76	163,903.31
	Water Use (10,000 tonnes)	Headquarters, Taoyuan Nanping Factory	88,840	80,063	84,528	90,120	89,087
		China Dongguan Factory, China Ningbo Factory	222,276	222,522	209,884	201,063	170,148
	Waste Production (tonnes)		1,621.53	1723.70	1,819.21	2,071.08	2,478.00
	General Waste (tonnes)	Headquarters	41.92	42.27	41.85	41.83	42.62
		Production Bases[2]	461.54	428.70	463.88	513.47	800.96
	Hazardous Industry Waste (tonnes)	Headquarters	0.26	0	0	0.60	1.22
		Production Bases[2]	76.39	114.20	106.51	216.93	232.19
	Volume of Waste per Unit Production (tonnes /1,000 motherboard equivalent pieces) of Production Bases		0.12	0.13	0.15	0.15	0.20
	Average Waste Production per Person (tonnes /person) of Headquarters		0.05	0.06	0.06	0.06	0.06
	Environmental Education Hours		10,178	12,945	10,570	8,132	13,318
Social Aspect	Total Number of Employees		7,171	6,716	7,471	7,303	7,026
	Average Age		32	34	33	34	34
	Average Service Year		6.34	6.81	5.87	6.23	8.00
	Employee Education Training Hours	Headquarters, Taoyuan Nanping Factory, Bestyield International, G-Style, GIGAPIC	18,760	16,796	24,878	19,904	15,359
		China Dongguan Factory, China Ningbo Factory	16,843	9,141	59,010	18,998	15,169
	Fatal Occupational Injuries Ratio	Headquarters	No historical data due to the revision of GRI Standards.		0	0	0
		Taoyuan Nanping Factory			0	0	0
		China Dongguan Factory			0.22	0	0
		China Ningbo Factory			0	0	0
	Severe Occupational Injuries (SOI) Ratio	Headquarters			0	0	0
		Taoyuan Nanping Factory			0	0	0
		China Dongguan Factory			0	0	0
		China Ningbo Factory			0	0	0
	Recordable Occupational Injuries	Headquarters			0	0.39	0.39
		Taoyuan Nanping Factory			2.28	0.69	0
		China Dongguan Factory			0.22	0	0
		China Ningbo Factory			0.83	0.41	1.27

[Note 1] Starting in 2021, the Taipei Silicon Valley Park offices of subsidiaries Bestyield International and G-Style were included in the scope of GHG emissions and electricity consumption.
[Note 2] Production bases: Includes GIGABYTE's three main manufacturing bases, namely Taoyuan Nanping Factory, China Dongguan Factory, and China Ningbo Factory.

Appendix II. GRI Content Index

GRI Standards	Disclosure Items	Page	Description and Omitted
GRI101: Foundation 2016			
Standard Disclosure (Core), Stakeholder Communication and Grievance Channels			
GRI 102: General Disclosure 2016 Organization Profile Strategy Ethics and Integrity Governance Stakeholder Engagement Reporting Practice	102-1 Name of the organization	9	-
	102-2 Activities, brands, products and services	9	-
	102-3 Location of headquarters	9	-
	102-4 Location of operations	9	-
	102-5 Ownership and legal form	9	-
	102-6 Market served	9	-
	102-7 Scale of the organization		-
	102-8 Information on employees and other workers	54	-
	102-9 Supply chain	44	-
	102-10 Significant changes to the organization and its supply chain	-	There are no significant changes to the organization and its supply chain in 2021.
	102-11 Precautionary principle or approach	25	-
	102-12 External initiatives	-	Voluntary support and introduction of international standards and guidelines such as ISO26000, UN Global Compact, RBA Code of Conduct, Responsible Minerals Initiative (RMI), and TCFD. The adherence to the GRI Standards and the Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies was a mandatory requirement issued by the Financial Supervisory Committee of R.O.C.
	102-13 Membership of associations	10	-
	102-14 Statement from senior decision-maker	3	-
	102-15 Key impacts, risk and opportunities	25	-
	102-16 Values, principles, standards and norms of behavior	23	-
	102-17 Mechanisms for advice and concerns about ethics	-	Please refer to GIGABYTE Investor website > Stakeholder Services>Contact Us
	102-18 Governance structure	23	-
	102-19 Delegating authority	21	-
	102-20 Executive-level responsibility for economic, environmental, and social topics		-
	102-21 Consulting stakeholders on economic, environmental, and social topics	16	-
	102-22 Composition of the highest governance body and its committees	24	For more information, please refer to 2021 GIGABYTE Annual Report III. Corporate Governance Report
	102-23 Chair of the highest governance body	-	Chairman is also a member of the management team
	102-24 Nominating and selecting the highest governance body	-	For more information, please refer to 2021 GIGABYTE Annual Report p.18
	102-25 Conflicts of interest	-	For more information, please refer to 2021 GIGABYTE Annual Report p.34–37
	102-26 Role of highest governance body in setting purpose, values, and strategy	21	-
	102-27 Collective knowledge of highest governance body	-	For more information, please refer to 2021 GIGABYTE Annual Report p.45–46
	102-28 Evaluating the highest governance body's performance	-	For more information, please refer to 2021 GIGABYTE Annual Report p.37
	102-29 Identifying and managing economic, environmental, and social impacts	21	-
	102-30 Effectiveness of risk management processes	21	-
	102-31 Review of economic, environmental, and social topics	21	-
	102-32 Highest governance body's role in sustainability reporting	3	-
	102-33 Communicating critical concerns	21	-
	102-34 Nature and total number of critical concerns		-
	102-35 Remuneration policies	-	For more information, please refer to 2021 GIGABYTE Annual Report p.33, 91, 121
	102-36 Process for determining remuneration	-	
	102-37 Stakeholders' involvement in remuneration	-	
	102-38 Annual total compensation ratio	24	-
	102-39 Percentage increase in annual total compensation ratio		-
	102-40 List of stakeholder groups	16	-
	102-41 Collective bargaining agreements	60	-
	102-42 Identifying and selecting stakeholders	16	-
	102-43 Approach to stakeholder engagement	16	-
	102-44 Key topics and concerns raised	18	-
	102-45 Entities included in the consolidated financial statements	2	-
	102-46 Defining report content and topic boundaries	19	-
	102-47 List of material topics	18	-
	102-48 Restatement of information	2	-
	102-49 Changes in reporting	-	No change in reporting
	102-50 Reporting period	2	-
	102-51 Date of most recent report	2	-

GRI Standards	Disclosure Items		Page	Description and Omitted
	102-53	Contact point for questions regarding the report	2	-
	102-54	Claims of reporting in accordance with the GRI Standards	2	-
	102-55	GRI content index	76	-
	102-56	External assurance	-	No third-party insurance in this year.
Material Topics GRI 200 Economy 2016; GRI 300 Environment 2016/2018; GRI 400 Society 2016/2018				
Financial Performance				
GRI 103: Management Approach	103-1	Explanation the material topic and its Boundary	18	-
	103-2	The management approach and its components	9	-
	103-3	Evaluation of the management approach		-
GRI 201: Economic Performance	201-1	Direct economic value generated and distributed	11	-
	201-4	Financial assistance received from government	-	No financial assistance or subsidies from the government in this year.
Moral Integrity and Code of Conduct; Corporate Governance; Legal and Regulation Compliance; Customer Relationship Management; Brand Management				
GRI 103: Management Approach	103-1	Explanation the material topic and its Boundary	18	-
	103-2	The management approach and its components	22	-
	103-3	Evaluation of the management approach		-
GRI 205: Anti-corruption	205-3	Confirmed incidents of corruption and actions taken	-	No occurrence in 2021
GRI 206: Anti-competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	-	No occurrence in 2021
GRI 307: Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	-	No occurrence in 2021
GRI 405: Diversity and Equal Opportunity	405-1-a	Diversity of governance bodies	24	-
GRI 415: Public Policy	415-1	Political contributions	-	No occurrence in 2021
GRI 416: Customer Health and Safety	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	-	No occurrence in 2021
GRI 417: Marketing and Labeling	417-2	Incidents of non-compliance concerning product and service information and labeling	-	No occurrence in 2021
	417-3	Incidents of non-compliance concerning marketing communications	-	No occurrence in 2021
GRI 419: Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	-	No occurrence in 2021
	Overview of GIGABYTE		9	-

GRI Standards	Disclosure Items		Page	Description and Omitted
Risk Management; Information Security Management; Innovation Management				
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	18	-
	103-2	The management approach and its components	22	-
	103-3	Evaluation of the management approach		
	Risk management and information security management strategies and measures		25	-
	Innovation management measures		27	-
Climate Change and Carbon Management; Responsible Production and Consumption; Circular Economy; Hazardous Substance Management; Pollution Prevention				
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundary	18	-
	103-2	The management approach and its components	28	-
	103-3	Evaluation of the management approach		-
GRI 201: Economic Performance	201-2	Financial implications and other risks and opportunities due to climate change	37	-
GRI 301: Materials	301-1	Materials used by weight or volume	43	-
GRI 302: Energy	302-1	Energy consumption within the organization	29	-
	302-2	Energy consumption outside of the organization	-	GIGABYTE began to collect Scope 3 activity data and emission factors from suppliers, internal systems and secondary sources in 2015. These were all converted into GHG emissions due to the complexity of data types.
	302-3	Energy intensity	30	-
	302-4	Reduction of energy consumption	30	-
GRI 303: Water and Effluents	303-1	Interactions with water as a shared resource		-
	303-2	Management of water discharge-related impacts		GIGABYTE's main water source is domestic water, and discharges water in accordance with laws and regulations, without significant impact to the ecology.
	303-3	Water withdrawal		-
	303-4	Water discharge	31	
	303-5	Water consumption	31	Leave out 303-5-b.c.d
GRI 305: Emissions	305-1	Direct (Scope 1) GHG emissions	39	-
	305-2	Energy indirect (Scope 2) GHG emissions		-
	305-3	Other indirect (Scope 3) GHG emissions		-
	305-4	GHG emissions intensity		-
	305-5	Reduction of GHG emissions		-

GRI Standards	Disclosure Items		Page	Description and Omitted
	305-6	Emissions of ozone-depleting substances (ODS)	-	GIGABYTE's process and products have no ozone-depleting substances
	305-7	Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions	-	Not substantial sources of emissions to GIGABYTE.
GRI 306 (2020): Effluents and Waste	306-1	Waste generation and significant waste-related impacts	32	-
	306-2	Management of significant waste-related impacts	-	GIGABYTE not only manages the waste we generate but also track the reduction performance of 333 Reduction Alliance supplier partners (including carbon, water, and waste) by questionnaire surveys every year.
	306-3	Waste generated	32	-
	306-4	Waste diverted from disposal	-	GIGABYTE generated 2,478 tonnes of waste in 2021. All were disposed through qualified contractors.
	306-5	Waste directed to disposal		
GRI 307: Environmental Compliance	307-1	Non-compliance with environmental laws and regulations		No occurrence in 2021
Sustainable Supply Chain Management; Conflict Minerals				
GRI 103: Management Approach	103-1	Explain the material topic and its Boundary	18	-
	103-2	The management approach and its components	44	-
	103-3	Evaluation of the management approach		
GRI 204: Procurement Practices	204-1	Proportion of spending on local suppliers	45	
GRI 407: Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	-	Low occurrence rate
GRI 408: Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	-	Low occurrence rate
GRI 409: Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	-	Low occurrence rate
GRI 414: Supplier Social Assessment	414-2	Negative social impacts in the supply chain and actions taken	50	-
-	Conflict Minerals Management Strategy and Effectiveness		47	
Occupational Health and Safety; Labor Relations; Talent Cultivation and Retention; Human Rights, Equality, and Diversity				
GRI 103: Management Approach	103-1	Explanation the material topic and its Boundary	18	-
	103-2	The management approach and its components	53	-
	103-3	Evaluation of the management approach		-
GRI 202: Market Presence	202-1-a	Ratios of standard entry level wage by gender compared to local minimum wage	58	-

GRI Standards	Disclosure Items		Page	Description and Omitted
GRI 401: Employment	401-1	New employee hires and employee turnover	55	-
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	59	-
	401-3	Parental Leave	67	-
GRI 402: Labor/ Management Relations	Minimum notice periods regarding operational changes			Notice 10 days before for service for more than 3 months and less than 1 year. Notice 20 days before for service for more than 1 year and less than 3 years. Notice 30 days before for service for more than 3 years.
GRI 403: Occupational Health and Safety	403-1	Occupational health and safety management system	61	-
	403-2	Hazard identification, risk assessment, and incident investigation	62	-
	403-3	Occupational health services	65	
	403-4	Worker participation, consultation, and communication on occupational health and safety	61	-
	403-5	Worker training on occupational health and safety	63	-
	403-6	Promotion of worker health	65	-
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	62	-
	403-8	Workers covered by an occupational health and safety management system	61	-
	403-9	Work-related injuries	64	-
	403-10	Work-related ill health	66	-
GRI 404: Training and Education	404-1	Average hours of training per year per employee	57	-
	404-2.a	Programs for upgrading employee skills	55	Leave out 404-2.b
	404-3	Percentage of employees receiving regular performance and career development reviews	57	-
GRI 405: Diversity and Equal Opportunity	405-1.a	Diversity of governance bodies and employees	54	-
	405-2	Ratio of basic salary and remuneration of women to men	57	-
GRI 406: Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	60	-
	Sustainability and environmental education, ecological conservation project		74	-

Appendix III. SASB Index

Topic and Code	Accounting Metric	Chapter or Explanation
Product Security		
TC-HW-230a.1	Description of approach to identifying and addressing data security risks in products	2.3 Risk Management
Employee Diversity and Inclusion		
TC-HW-330a.1	Percentage of gender representation for (1) management, (2) technical staff and (3) all other employees	SASB Statistics
Product Life Cycle Management		
TC-HW-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	GIGABYTE's products are 100% compliant with IEC 62474 declarable substances list.
TC-HW-410a.2	Percentage of eligible products, by revenue, meeting the requirements for EPEAT registration or equivalent	GIGABYTE's main products are components of system hardware (e.g. motherboards, graphics cards), so cannot obtain EPEAT and Energy Star certification which primarily aim at terminal electrical and electronic products.
TC-HW-410a.3	Percentage of eligible products, by revenue, meeting ENERGY STAR® criteria	
TC-HW-410a.4	Weight of end-of-life products and e-waste recovered, percentage recycled	SASB Statistics
Supply Chain Management		
TC-HW-430a.1	Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP), or equivalent, by (a) all facilities and (b) high-risk facilities	SASB Statistics
TC-HW-430a.2	Tier 1 suppliers' (1) nonconformance rate with the RBA Validated Audit Process (VAP), or equivalent, and (2) associated corrective action rate for (a) priority non-conformances and (b) other non-conformances	100% of tier 1 suppliers passed the RBA VAP or equivalent audit process.
Materials Sourcing		
TC-HW-440a.1	Description of the management of risks associated with the use of critical materials	4.1.3 Conflicts Minerals Management Referring to the top 10 critical materials analysis published by the EPA in 2017 and the controlled conflict minerals, we defined Tin and Cobalt as critical materials and manage them in accordance with conflict minerals management measures.

SASB Statistics

TC-HW-330a.1

Percentage of gender representation for (1) management, (2) technical staff and (3) all other employees

	Male	Female
Management	17%	6%
Technical staff	24%	22%
All other employees	15%	16%
Total	56%	44%

TC-HW-410a.4

Weight of end-of-life products and e-waste recovered, percentage recycled

Total weight of recycled (tonnes) / Total weight of products sold (tonnes) =690.40/17,594.79= 3.92%

* All other wasted products were disposed of through qualified contractors in accordance with legal procedures.

TC-HW-430a.1

Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP), or equivalent audit (customer managed audit, CMA), by (a) all facilities and (b) high-risk facilities

(a) Number of suppliers audited under CMA process by a third party/ Number of suppliers with ongoing trading records = 47/265=17.7%

(b) Number of suppliers audited under CMA process by a third party / Number of high-risk suppliers = 47/47=100%

Appendix IV. TCFD Index

Core Element	Description	Recommended Disclosures		
Governance	Disclose the organization's governance around climate-related risks and opportunities.	a) Describe the board's oversight of climate-related risks and opportunities	b) Describe management's role in assessing and managing climate-related risks and opportunities.	
		3.2.1 Climate Governance Organization	3.2.1 Climate Governance Organization	
Strategy	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	C) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario
		3.2.2 Climate Risk Assessment and Management Strategy	3.2.3 Identification of Climate-related Risks and Opportunities	3.2.2 Climate Risk Assessment and Management Strategy
Risk Management	Disclose how the organization identifies, assesses, and manages climate-related risks.	a) Describe the organization's processes for identifying and assessing climate-related risks	b) Describe the organization's processes for managing climate-related risks	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management
		3.2.2 Climate Risk Assessment and Management Strategy	3.2.2 Climate Risk Assessment and Management Strategy	3.2.3 Identification of Climate-related Risks and Opportunities
Metrics and Targets	Disclose the metrics and targets used to assess and management relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets
		3.2.2 Climate Risk Assessment and Management Strategy	3.2.4 Greenhouse Gas Inventory and Reduction Performance	3.2.4 Greenhouse Gas Inventory and Reduction Performance

Corrigendum of 2020 CSR Report

2020 Report Chapter: 2.4 Innovation Management > p.27 > Cumulative Number of Obtained Patents

- **2019 should be revised to 2,464; 2020 should be revised to 2,563**

2020 Chapter Report: Appendix > p.75 > CSR Performance Summary in the Past 5 Years

- **Consolidate revenue (NTD 100 Million) in 2020 revised to 846.03**
- **GHG emission intensity (t-CO_2e/1,000 motherboard equivalent pieces) in 2020 updated to 2.16**
- **2019 Water use of bases in Taiwan in 2019 should be revised to: 84,528 tonnes**
- **The actual water use statistics of 2017 and 2018 are as stated in this report (2021)**

2020 Report Chapter: Appendix > p.71 > SASB Statistics – TC-HW-430a.1

(a) Number of suppliers audited under CMA process by a third party/ Number of suppliers with ongoing trading records = 49/254 = 19.3%

(b) Number of suppliers audited under CMA process by a third party / Number of high-risk suppliers = 49/49 =100%

GIGABYTE™

GIGABYTE
CSR Website

facebook

Instagram

YouTube

Thank you for reading GIGABYTE 2021 Sustainability Report
If you have any suggestion, welcome to e-mail CSR@gigabyte.com