

## **5. Operational Highlights**

---

## 5.1 Business Activities

### 5.1.1 Business Scope

#### A. Main areas of business operations

Company's business primarily covers the R&D, manufacturing, testing and after-sales services of the following items:

- (1) Desktop, motherboard, all-in-one and professional computer
- (2) Server, workstation, AI computing devices and other components
- (3) Notebook, tablet, smartphone and handheld devices
- (4) VoIP phone, video conference system, telecommunication equipment and multimedia
- (5) LCD monitor
- (6) After-sales services of above mentioned products and peripheral devices
- (7) Waste collecting and disposing
- (8) Design and merchandising of computer software and programs
- (9) Vitro diagnostic device, physiological signal diagnostic device and medical data system
- (10) Manufacturing, processing and selling of electronic products for automobile

#### B. Revenue distribution

Unit: NT\$ thousands

Major Divisions	Total Sales in Year 2023	(%) of Total Sales
3C Electronics	813,525,930	93.8
Others	53,531,077	6.2
Total	867,057,007	100

#### C. Current Main Products and Services

- (1) Notebook computers
- (2) Smart phones and handheld devices
- (3) Desktop computers and All-in-One (AIO) computers
- (4) Display products
- (5) Voice over Internet Protocol (VoIP) phones
- (6) Servers and network storage facilities
- (7) Network equipment and network security devices
- (8) Industrial PC
- (9) After-sales services

- (10) Green recycling services
- (11) LCM services (Display components)
- (12) AI computing equipment
- (13) Digital Signage

#### D. New products and Services development

- (1) Medical devices, Medical AI and Big Data services
- (2) Electrical vehicle
- (3) Battery recycling services
- (4) Smart home devices

### 5.1.2 Industry Overview

#### A. Progress and Development of the Industry

##### (1) Personal Computers

In 2023, the overall PC market remained weak. According to the survey released by the international research firm Canalys, the PC shipments in 2023 were 247 million units, a decrease of about 13% compared to 2022's 285 million units. This is primarily due to the persistently high inflation environment over the past year, which has increased spending on essential goods, squeezing consumers' willingness to purchase or upgrade computers. Moreover, corporate procurement tends to be conservative, leading to sluggish demand for both personal and commercial PCs.

It is expected that by 2024, the growth rate of the PC market will rebound compared to 2023. Key factors contributing to this include the easing of inflation, which is favorable for the recovery of the PC market. Additionally, Microsoft's discontinuation of support for the Windows 10 operating system is expected to drive replacement demand. Furthermore, the continued growth of generative AI applications will motivate both enterprises and consumers to actively upgrade their devices. The postponed equipment purchases following the pandemic will also act as a catalyst for market growth, driving an overall positive trend in the PC market's development.

##### (2) Enterprise Computing - AI Computing, Large Data Centers, and General-Purpose

In 2023, artificial intelligence (AI) experienced remarkable growth, advancing across diverse domains such as generative AI, natural language processing, and beyond. These strides transcend conventional boundaries, extending to the enrichment of unstructured data alongside the creation of text, images, videos, and audio. Notably, AI facilitates the organization of legal documents, corporate regulations, and automates solution generation processes. The rising demand for AI servers has spurred both cloud service providers (CSPs) and businesses of varying scales to bolster their generative AI capabilities. Projections from research institutions indicate a projected annual growth rate of 20% to 30% for AI servers from 2024 to 2026, propelled by emerging application scenarios and ongoing technological innovations, thereby fueling heightened demand for GPU accelerators.

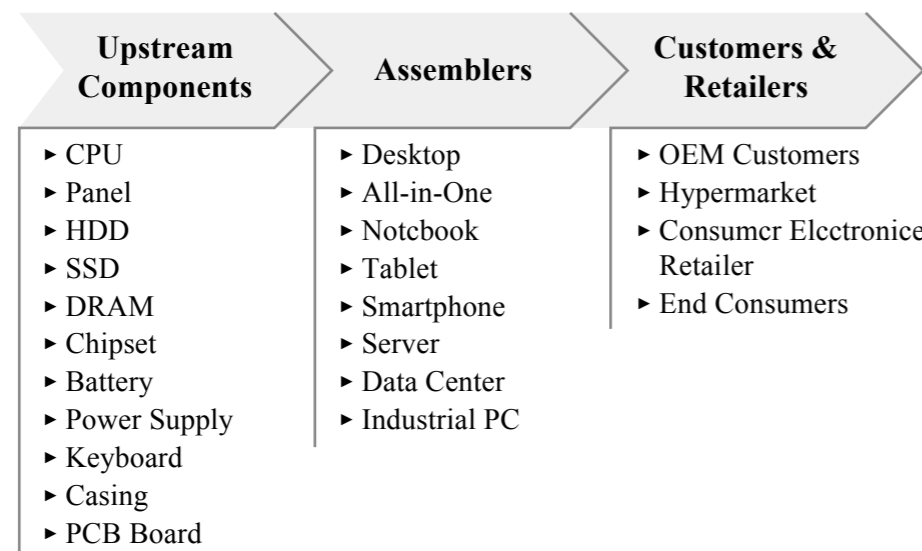
In the midst of AI advancements, data centers play a crucial role by providing the essential infrastructure and data support necessary for the operation of AI servers. Furthermore, in recent years, the rapid proliferation of edge devices and the diversification of various types of cloud services have led to a rapid growth in demand for data centers. However, in 2023, global economic headwinds resulted in a 2.6% decline in capital expenditure for CSPs, slowing down the pace of data center construction.

In terms of general-purpose servers, there was a slowdown in shipments due to inventory adjustments, compounded by challenges such as high inflation, the worsening economy in China, the Russia-Ukraine war, and the rise of generative AI, which squeezed enterprise server procurement budgets, leading to an 18.3% decline in global server shipments.

As we look ahead to 2024, with the ongoing evolution of AI technology and a gradual recovery in the global economic landscape, there is an anticipation that CSPs will increasingly invest in AI infrastructure to accommodate the rising needs for AI model training and inference. This includes enhancing computing power, expanding data center facilities, and deploying hardware such as GPU accelerators to support complex artificial intelligence computations. Simultaneously, data centers are expected to advance in intelligence and automation, resulting in heightened operational efficiency and cost reduction. Regarding general-purpose servers, the reallocation of budgets in 2024, coupled with the continued need for traditional servers alongside generative AI, will drive CSPs and enterprises to restart their procurement of general-purpose servers, thereby expectedly driving a rebound in overall server shipments.

On the other hand, edge applications are set to become integral to AI technology, ranging from smart homes to AI-powered smartphones and PCs. This evolution will see edge computing expand data processing capabilities from centralized data centers to end devices, facilitating lower latency and efficient data processing and feedback loops. Meanwhile, hyperscale data centers will continue to play a key role in data storage and computation. AI computing certainly will be applied in more scenarios, bringing about transformative changes in human life.

## B. Correlation of the industry supply chain (as picture shown below)



## C. Product Trends and Competition

### (1) Product Development Trends

With the emergence of AI application software such as ChatGPT, Copilot, and Sora, the way humans interact with machines has undergone significant changes. People's imagination of AI is no longer solely associated with commercial use but is seamlessly integrating into everyday life in more tangible, fluid, and convenient ways. This evolution has sparked anticipation for the enhancement of hardware devices in AI and edge computing technologies. Furthermore, there's a growing investment of research and development resources in areas such as automotive, smart healthcare, and smart factories.

In the field of AI, numerous generative AI applications have emerged. Through technologies like deep learning, natural language processing, and image processing, these applications are used for tasks such as text-to-image, text-to-video, and image-to-video generations. All these new applications require significant computing power to process various types of data, driving to the robust growth of AI servers. This necessitates higher computing capabilities and drives upgrades in networking towards fiber-optic standards, accelerating the adoption of Wi-Fi 7 and increasing demand for advanced packaging, memory, storage space, cable specifications, and power supplies. Additionally, the substantial heat generated by high-performance AI servers is prompting a shift from air-cooling to liquid-cooling solutions, leading to upgrades in cabinet and chassis. This, in turn, affects the load-bearing capacity, space planning, and server maintenance of data center structures, all of which require careful planning to ensure the operational efficiency and stability of data centers.

On the other hand, AI PCs are evolving to become smarter and more personalized. For example, they can automatically detect human voices and adjust background music, as well as optimize power efficiency parameters. Through more powerful transmission chips, touch ICs, digital microphones and power management ICs (PMICs), the user experience is further enhanced. Looking ahead, the widespread adoption of AI will drive the proliferation of data centers, AI servers, as well as various edge devices such as PCs, mobile devices, home appliances, and application software, leading to continuous growth and innovation.

Furthermore, in the automotive sector, the widespread adoption of 5G technology will lead to more efficient data transmission. Major automakers are actively developing autonomous driving technologies tailored to specific environments, utilizing AI for perception, localization, route planning, and control functions. This diminishes the necessity for manual coding of vehicle decision rules, enabling vehicles to learn directly from vast amounts of data. Additionally, smart cockpits are swiftly advancing from basic driving interfaces to interactive human-vehicle systems, with entertainment systems continuously upgrading to alleviate driver monotony. Consequently, it is anticipated that the proportion of automotive electronic components in overall vehicle design will increase significantly.

In the healthcare field, the application of 5G technology, AI image recognition, VR surgery simulators, and internet-connected medical equipment have made home healthcare, mobile healthcare, and telemedicine services a reality. Patients no longer need to visit hospitals in person for diagnosis and treatment, as doctors can perform remote surgeries through remote guidance and robotic assistance. Furthermore, utilizing AI to analyze vast amount of data is applied in drug development and clinical trials. There is an expected rise in demand for edge devices, servers, and auxiliary medical equipment for AI inference. This will provide downstream electronic manufacturers with more development opportunities, gradually emerge as the next growth driver of the industry.

### (2) Competition

In addition to business scale, how to enhance operations and management efficiency, lower costs, and optimize product and customer mixes have become the key factors in the industry to maintain sales growth and competitiveness. Those factors can be achieved through leading innovative product development capabilities, digital transformation, and a global manufacturing footprint.

Major PC ODMs in Taiwan

<b>Notebook</b>	Wistron, Quanta, Compal, Inventec, Pegatron
<b>Desktop</b>	Wistron, Hon Hai, Pegatron
<b>Smart Device</b>	Wistron, Quanta, Compal, Inventec, Pegatron, Hon Hai
<b>Server</b>	Wistron, Hon Hai, Quanta, Inventec, MiTAC
<b>Monitor</b>	Wistron, AOC, Qisda, Foxconn

5.1.3 Research and Development

A. Research and Development Expenses in the most recent fiscal year or during the current fiscal year up to the date of publication of the annual report

	2023	2024 (As of March 31)
R&D Expenses (NT\$ thousands)	23,894,253	-
R&D Expenses to Revenue	2.76%	-

B. The successful development of technologies and products

(1) Intellectual Property

In 2023, Wistron has 89 U.S. and 147 Taiwan patents granted. Additionally, Wistron keeps developing a global patent portfolio, and has obtained 147 issued patents in various other countries in 2023, and has been named a “Top 100 Global Innovators™ 2023” by Clarivate™, “Top 20 Taiwan Sustainable Innovation Company” by Lexis Nexis® and awarded the “Golden Medal of Invention Award” from the Taiwan National Invention & Creation Award by TIPO. Going forward, Wistron will continue to implement an unified plan for intellectual capital management, aligning with company’s strategic considerations and business objectives, to drive the timely creation, management, and monetization of intellectual property rights.

(2) Technologies and products

Year	R & D results
2023	Green recycling business <ul style="list-style-type: none"> <li>● Lithium battery recycling</li> <li>● Optimization system for procurement of renewable energy</li> </ul>
	Enterprise business technology services <ul style="list-style-type: none"> <li>● Network security hardware platform for high-performance next-generation firewall (NGFW) with 400GE/200GE/100GE fiber network connections</li> <li>● Facility layout and capacity simulation by digital twin</li> </ul>
	Industrial computers <ul style="list-style-type: none"> <li>● AI delivery service robot system</li> <li>● Suspension system for delivery service robots</li> <li>● Optimized RF antenna and miniaturized PCB design for Handheld device</li> <li>● High-performance, fanless, and explosion-proof industrial Panel PC and Box PC</li> <li>● EVSE AC charger compliant with Taiwan CNS15511 and Japan JARI charging standards</li> <li>● EVSE DC fast charger with CCS1/CCS2 charging interface</li> </ul>

Year	R & D results
2023	Internet of Things <ul style="list-style-type: none"> <li>● Multi-radar fusion system for elderly activity and fall detection</li> </ul>
	Medical devices <ul style="list-style-type: none"> <li>● LED optical detection system</li> <li>● High-pressure (75psi) positive/negative pressure testing system</li> <li>● Smart walker system to assist with walking training after joint replacement surgery</li> <li>● Millimeter radar system for sarcopenia detection</li> </ul>
	Enterprise storage <ul style="list-style-type: none"> <li>● Rack level directed liquid cooling solution with OCP Specifications</li> <li>● In-rack immersive cooling system</li> <li>● O-RAN Accelerator module</li> <li>● 64ports 800G data center switch</li> <li>● Photonic integrated circuit chip with 4-channel transceiver</li> <li>● AOI defect detection system</li> </ul>
	Professional display solution <ul style="list-style-type: none"> <li>● Outdoor LCD display featuring high brightness, high resolution, anti-glare film layer, and intelligent dehumidification module</li> <li>● Optical camera image sensor module</li> </ul>
	Platform for innovation <ul style="list-style-type: none"> <li>● Negative pressure beverage extraction device</li> <li>● AI supply chain ESG management platform</li> <li>● AI fitness application</li> </ul>
	In-vehicle electronic systems <ul style="list-style-type: none"> <li>● Automotive In-Vehicle Infotainment (IVI) System integrating a high-performance and a low-power platform</li> <li>● Driver monitoring system</li> <li>● Advanced driver assistance system supporting blind spot detection, autonomous parking assist, lane departure warning, and forward/backward collision warning</li> <li>● Blade type of automotive High-Performance Computing (HPC) platform</li> </ul>
	Factory application and production automation <ul style="list-style-type: none"> <li>● Wi-Fi multicast technology for accelerating firmware downloads in factories</li> <li>● AGV integrated arm and controlling system thereof</li> <li>● PCBA manufacturing process and final assembly technology and equipment</li> <li>● Temperature control and heat transfer system for Run-in Room</li> <li>● Cross-platform XR remote virtual factory</li> <li>● Intelligent production parameter optimization and material management system</li> <li>● SMT digital twin system and auto optical inspection system</li> <li>● Intelligent scheduling and dispatching system</li> </ul>
	Laptop Computers <ul style="list-style-type: none"> <li>● Movable thermal dissipating mechanism</li> <li>● Automatic detection for PCIE VGA cards</li> </ul>
	Desktop Computers <ul style="list-style-type: none"> <li>● Device Firmware Configuration Interface (DFCI) management</li> </ul>

### 5.1.4 Long-Term and Short-Term Business Development Plans

#### A. Short-Term Development Plan

The short-term plan focuses on enhancing customer satisfaction and pursuing a quality-first attitude. It aims to strengthen existing customer relationships, optimize current customer and product portfolios, improve operational efficiency, increase capacity utilization, and achieve reasonable profitability.

#### B. Long-Term Development Plan

In the long run, the Company will continue to increase the profitable products and services (including AI computing equipment, servers, network storage, industrial computers, and after-sales service, etc.) and accelerate achieving breakeven profitability in our newly invested businesses.

The strategic plans are as follows:

##### (1) Marketing Strategy

- A. Continue to improve core competency in professional designs and technological services.
- B. Maintain high-quality and high-performance products.
- C. Continue to optimize the global service network for providing a comprehensive range of after-sales services.

##### (2) Manufacturing Policy

- A. Optimize the global manufacturing and supply system, increase the proportion of automated production, and introduce AI intelligent manufacturing. This not only enhances efficiency and reduces costs but also helps penetrate the market for products with higher manufacturing complexity and technological requirements. This strengthens competitiveness while increasing profit margins, securing a favorable strategic position.
- B. Continue to promote Six Sigma projects in combination with performance goals to comprehensively enhance quality and efficiency.

##### (3) Product Development Goals

- A. Cultivate excellent R&D experts and improve their R&D capabilities.
- B. Based on existing computer design capabilities, deeply cultivate technological fields such as AI computing, servers, network storage, advanced network management systems, and industrial computers. Introduce AI tools to strengthen development capabilities and shorten development cycles, in order to enter high-end product markets.
- C. Commit to energy conservation by adopting eco-friendly materials and technologies that comply with green product and related environmental laws.

#### (4) Operation Scale and Financial Support

- A. Actively integrate and develop production capacity overseas to fulfill business requirements.
- B. Strengthen balance sheet management, control the number of cash turnover days to within a reasonable range, and sustain a healthy financial structure.

## 5.2 Market, Production and Sales

### 5.2.1 Market Analysis

#### A. Sales (Service) Region

##### (1) The Major Products and Sales Value in the Most Recent Two Years

Unit : KPCS ; NT\$ thousands

Sales Value Major Product	Year		2022				2023			
			Domestic		Export		Domestic		Export	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value		
Computer, Communication & Consumer electronics	1,546	20,506,581	84,022	904,941,405	1,689	33,770,074	59,508	779,755,857		
Others	809	1,138,100	27,483	58,033,070	677	1,510,860	11,432	52,020,217		
Total	2,355	21,644,681	111,505	962,974,475	2,366	35,280,934	70,941	831,776,073		

Note: Company shall prepare consolidated financial reports of 2022& 2023 in accordance with IFRSs regulation.

##### (2) The Company significant sales based on exported products. Stated below are the geographic information on the Group's sales presented by destination of sales presented by location.

Unit : %

District	Year	2022	2023
United States		46.70	49.19
Japan		2.85	3.69
HK /China		12.69	11.57
ASEAN		2.92	3.3
Europe		21.93	21.71
Others		12.91	10.54
Total		100.00	100.00

Note: Company shall prepare consolidated financial reports of 2022 & 2023 in accordance with IFRSs regulation.



## B. Market Share

Taiwan is a major supplier of information technology products as exemplified by these iconic products. According to the MIC (January 2024) and market statistics, Taiwan produced 130,986K notebook computers, 37,174K desktop computers and 10,637K servers in 2023, of which about 15%, 24%, and 22% were produced by our company respectively. These numbers demonstrate our company's considerable competitiveness in the market.

## C. Future Market Supply and Demand and Future Growth

### (1) Future Market Possible Supply and Demand Scenarios

#### A. Supply Perspective

The personal computer (PC) market has reached maturity and Taiwan's manufacturers must rely on exceptional cost control, assembly technology and production flexibility while devising strategies, engaging in research and development, and building on marketing and management experience to acquire OEM orders. With complete upstream and downstream integration, Taiwanese manufacturers can supply competitive products and retain an edge in research and development, offering ODM services that differentiate them from foreign OEM manufacturers. The AI market saw explosive growth in 2023, with a severe shortage of AI server key component GPUs, which is expected to ease in 2024.

#### B. Demand Perspective

The global information market has been driven by the popularity of smart terminal devices and 5G networks, shifting the demand for personal computers and computing equipment. The COVID-19 pandemic starting in 2020 led to a significant increase in demand for PCs and servers, but as the pandemic eased by 2022, the pandemic's demand boost came to an end. In 2023, global inflation led to a decrease in purchasing power, coupled with high channel inventory levels, weakening market demand. However, inventory levels were mostly depleted by the end of the year, and a new wave of demand driven by AI servers and AI PCs is expected to gradually penetrate market in 2024.

#### Global PC Shipments Growth Trend

Unit: 1 = 1000 units

Year	2022	2023	2024(e)	2025(f)	2026(f)
Number of NBs	187,100	165,600	173,200	186,200	191,500
Growth Rate	-24.3%	-11.49%	4.59%	7.51%	2.82%
Number of DTs	91,800	78,400	79,000	77,600	75,600
Growth Rate	-5.3%	-14.6%	0.8%	-1.9%	-2.5%
Number of PCs (NB + DT)	278,900	244,000	252,200	263,800	267,100
Growth Rate	-18.9%	-12.51%	3.33%	4.6%	1.26%

Source: DIGITIMES Research (March 2024)

Compound growth rate is around -1.08% from 2022 to 2026.

### (2) Future Growth

We continue to expand the ratio of higher profit products (such as servers) and expedite growth and profit in technology service businesses.

#### Global Server Shipments Growth Trend

Unit: 1 = 1000 units

Year	2022	2023	2024(e)	2025(f)	2026(f)
Number of Servers	13,827	11,259	12,055	13,031	14,083
Growth Rate	7.0%	-18.6%	7.1%	8.1%	8.1%

Source: Gartner (March 2024)

Compound growth rate is around 0.46% from 2022 to 2026.

## D. Competitive Niches

### (1) Fully Staffed and Experienced R&D Team

Each business unit in our company has their own R&D department responsible for the research and development of their products. As of January 2024, our company has a R&D team of over 5,400 people, over 99% of which have a college degree or higher and main team leaders have on average over 20 years of experience in developing products in their field. These conditions are a testament to our R&D's strength in terms of the quality of people and their experience.

### (2) Fully Integrated Manufacturing Base

We intend to continue our OEM business while actively venturing into new realms. The company's manufacturing bases are located in Taiwan, U.S.A., China, Mexico, Czech Republic, Vietnam, India, and Malaysia.

One of our company's key advantages now is receiving purchase orders in Taiwan and through lean manufacturing by decreasing production waste, improving production efficiency, and reducing manufacturing cost to maximize profits.

### (3) Solid Clients and a Diversified Portfolio of Products

Our company's business is based mainly on providing professional OEM services supporting clients with world renowned brands, each comprising an equal share of our sales. Our products are also diversified and the company is not affected by shifts in the industry of a single product. The company is also not affected by instability of supply and demand due to clients' shift in product strategy.

### (4) Focus on Product Quality

Building on years of experience in design and manufacturing, very comprehensive testing and quality control of our products have earned our clients' trust.

**(5) Solid Relationships with Suppliers**

No matter to sources of key technologies or suppliers of key components, the company maintains long-term partnerships and total cost considerations with our supply chain to provide comprehensive services and solutions with regards to cost, quality, and delivery.

**(6) Global Logistics Management Capability**

The company has established manufacturing bases and service centers in Europe, Americas and Asia. Over time, we have established effective global logistics management capabilities in order to fulfill a wide range of demands from clients in different parts of the world. This crucial capability matches future trends in the industry and has become one of the key advantages of our company.

**(7) Professional Management Team**

Our management teams are all senior professionals with over 20 years of related experience in the industry. The team enjoys a history of collaboration and shares common ideas and a common goal, paving the way for effective leadership to facilitate growth.

**E. Advantages and Unfavorable Factors to Long-Term Development and Responding Measures****(1) Advantages**

**A. Taiwan enjoys an extensive information technology industry with strong overall marketing capabilities.**

The domestic IT industry has undergone several phases of transition and matured in the process. The Taiwanese IT industry occupies a solid place in the global marketplace. The industry is proportionally dispersed and well-integrated among individual industries allowing mutual support.

This has led to an increase in the international marketing capability of Taiwan's IT industry, enabling this industry to become a global procurement center for personal computer related products.

**B. Taiwan's component industry has matured and enjoys a stable supply of key components.**

In recent years, Taiwanese manufacturers have gained dominance in key components such as chip sets, printed circuit boards, and touch modules for motherboards, notebook computers, tablet computers, smart phones and LCD displays. The industry's comprehensive development has helped advance the domestic IT industry and boost Taiwan's IT capabilities.

**C. Potent R&D and Technical Innovation Capabilities.**

Wistron has built an excellent R&D team and has committed to investing in product R&D and technological innovation. By collaborating with CPU/GPU manufacturers to develop new products, the company can lead the industry in introducing new products. With R&D units in each information product department, the company can maintain a competitive edge in a market environment characterized by short product lifecycles and intense competition.

**D. Solid After-Sales Service Networks**

The company has established service centers on three continents in Taiwan, U.S.A., China, the Czech Republic, Japan, Hong Kong, Singapore, India, the Philippines, Turkey, Mexico and Brazil, offering real-time and efficient after-sales service.

**(2) Unfavorable Factors****A. Intense Competition Lowers Profit**

The development of the IT industry has lowered entry barriers and the influx of producers has led to intense competition. Meanwhile, the maturity of computer products, advancement of manufacture technology, over-capacity, and less product feature differentiation have led to profit margins decline.

**B. Exchange Rates' Effect on Profits**

The company's products are mostly for export and profits are susceptible to changes in exchange rates.

**C. Mounting Labor and Land Costs Raise Production Costs**

Automated assembly can accommodate the production of most of the company's products but certain components still rely on manual labor. Mounting labor cost has raised operation expenditures in China and the industry's production costs which are detrimental to competition in the global market.

**(3) The Company's Response**

**A. Confront the competition by active product innovation with high value-added products development, and industrial transformation.**

**B. Maximize production efficiency by strengthening cost and inventory control and increasing automation.**

**C. Hedge against exchange rate risks by balancing assets and debt in foreign currency to lower net foreign currency position.**

**D. Finance personnel must be wary of fluctuations in exchange rates and the company's demand for funds by taking appropriate hedging measures.**

**E. Raise the quality of the products and lower dependence on manual labor by actively investing in automated production equipment.**

**F. Increase capacity utilization by streamlining design and production instead of merely increasing capacity.**

**5.2.2 Core Applications of Major Products and Manufacturing Processes:****A. Core Applications of Major Products**

Data storage, logic computation, analyses, network communication, data management, computer-assisted design, manufacturing, publication, education, entertainment, advertising, electronic purchases, word processing, financial services and finance management.

**B. Manufacturing Processes**

**(1) Printed Circuit Board Assembly (PCBA: Printed Circuit Board Assembly)**

Incoming material inspection → materials preparation → solder paste printing → high speed placement for small surface mount device → Flexible placement for fine pitch/large surface mount device → nitrogen reflow heating and soldering → automatic optical inspection → in-circuit tester inspection → on-line inspection → component insertion → wave soldering in heated tin stove → mending operations → PCB ICT and ATE tests → functional inspection → visual inspection → packaging → inventory → shipping

**(2) Final Assembly (FATP: Final Assembly, Test, and Pack):**

Incoming material inspection → materials preparation → assembly → system function pre-test → run-in test → operation system download → system final function test → visual inspection → packaging → inventory → shipping

**5.2.3 Status of Supply of Chief Materials:**

Main Materials	Domestic and Foreign Sources	Status of Supply
CPU	United States	Under geo-political consideration, suppliers actively worked on balancing supply chain distribution and regional capacity investments. Not only on wafer fabrication, they also made significant progress on assembly & test capacity with existing owned factory as well as outsourcing partners. Now except for a few retiring and newly-launched lines, almost all major products are under stable supply. Looking back on 2023, AI infra demand surged with Cloud Server Providers due to the inspiration of Large Language Model applications such as ChatGPT. Now, with the introduction of Intel Core® Ultra™ processors and Microsoft Copilot, it is expected to have another boom of AI Personal Computers.
Solid-state drive (SSD)	USA, Japan, Korea	In 2023, the market faced oversupply, prompting suppliers to reduce capital expenditure and initiate production cuts to stabilize prices. Despite these efforts, weak demand persisted, leading to an imbalance between supply and demand. Suppliers held prices steady from Q3 onwards to avoid further profit losses and began raising NAND wafer prices. In Q4, prices for all NAND products increased, resulting in a 10-18% increase in SSD prices. However, ongoing reduction in capital expenditure led to significant delays in new process upgrades. Against a backdrop of overall economic softness, shipments of the three major end applications (laptops, smartphones, servers) experienced negative growth, contributing to the lowest year-on-year NAND demand growth in a decade.
DRAM	Korea, USA, Taiwan	In 2023, overall economic inflation, geopolitical uncertainties and US economic sanctions against China have led to a slow market recovery and weak demand. Memory factories have suffered losses for three consecutive quarters since the first quarter. The effect of production cuts by the three major factories has ushered in price declines. The bottom has turned upward since the fourth quarter, and the upward trend is expected to increase quarter by quarter to 2024 in the third quarter. The requirements for data processing speed and computing power of AI Server/PC/NB related products promote the expansion of DDR5 penetration. Major manufacturers have accelerated their investment in HBM business opportunities and stopped producing DDR3/DDR4 products below 18nm. Taiwanese manufacturers Nanya/Winbond/ESMT have taken over and continue to serve industrial control, automotive and consumer products in the market.

Main Materials	Domestic and Foreign Sources	Status of Supply
Power IC (PMIC)	USA, Taiwan, China	In 1H 2023, for consumer market, end customer corrected the demand was completed. However, due to the weak market, customers remained conservative in placing orders and preparing materials. To avoid short-term supply shortages, the supply chain needs to maintain healthy inventory levels in response to market changes. AI server demand is staying strong while other markets remain stable. It is required to keep observing and following up the market changes in 2024. Power IC suppliers in the consumer market continue to reduce inventory, adjust production capacity, and shorten production cycles. AI products require high power and efficiency which leads the demand for high-end power ICs remains strong. These suppliers' utilization rate remains high.
Power Supply	Taiwan, China	In 2023, due to the world wild market demand declined especially on PC market severely, the supply LT for most Power Supply has improved to 12~16wks. For AI product, due to the rapid demand increasing since 2023, the lead time remains the same, 26~36wks.
PCB	Taiwan, China, Austria, Korea	In 1H 2023, the global consumption experienced excessive inflation due to supply-demand imbalances caused by the 2021-2022 pandemic. Post-pandemic, there was significant overall demand decline due to the pressure to liquidate inventory. In 2H 2023, the rise of AI servers led to a gradual rebound in PCB demand, but consumer product demand continued to be weak.
LCD	Taiwan, China, Japan, Korea	The Russian-Ukrainian war and global inflation have brought more uncertainty to the global consumer electronics market, including TV and personal computer products. Brand owners and OEMs tend to be more cautious about 2023's product shipment forecasts, panel purchases and safety stocks. Because brand have more inventory in past year, and also postpones the release of new models and promotional activities in 2023; Panel makers also maintain price levels through capacity reductions. Therefore, overall maintains a stable supply and demand and price trend between panel makers adjusting production and end-product inventory in 2023. The panel makers are managing production capacity without accumulating inventory. Material preparation is conducted based on customer demand. The 2024 Paris Olympics and UEFA European Championship are expected to contribute to the demand for large-sized televisions, projecting an increase in prices for medium and small-sized panels. The estimated growth in panel demand for 2024 is between 5% and 10%. Currently, prices remain stable with a gradual upward trend.



## 5.2.4 Key Accounts in the Past Two Years

### A. Key Suppliers

Unit: NT\$ thousands

Item	2022					2023				2024 As of March 31 (Note2)			
	Company Name	Amount	Percent	Relation with Issuer		Company Name	Amount	Percent	Relation with Issuer	Company Name	Amount	Percent	Relation with Issuer
1	A Company	86,395,725	10.25	None		A Company	124,815,169	17.83	None	-	-	-	-
2	Others	756,643,687	89.75	None		Others	575,343,260	82.17	None	-	-	-	-
	Total	843,039,412	100.00	-		Total	700,158,429	100.00	-	-	-	-	-

Note1 : Increase and decrease of the amount was due to business demand.

Note2: The financial information for the first quarter of 2024 has not been reviewed by CPA.

### B. Key Buyers

Unit: NT\$ thousands

Item	2022					2023				2024(As of March 31)(Note)			
	Company Name	Amount	Percent	Relation with Issuer		Company Name	Amount	Percent	Relation with Issuer	Company Name	Amount	Percent	Relation with Issuer
1	Buyer H	310,161,092	32	Non Subsidiary of the Company		Buyer H	281,698,350	32	Non Subsidiary of the Company	-	-	-	-
2	Buyer I	153,624,651	16	Non Subsidiary of the Company		Buyer I	111,546,046	13	Non Subsidiary of the Company	-	-	-	-
3	Buyer C	101,524,048	10	Non Subsidiary of the Company		Buyer B	92,522,385	11	Non Subsidiary of the Company	-	-	-	-
4	Buyer B	80,324,785	8	Non Subsidiary of the Company		Buyer C	75,429,677	9	Non Subsidiary of the Company	-	-	-	-
5	Others	338,984,580	34	-		Others	305,860,549	35	-	-	-	-	-
	Total	984,619,156	100	-		Total	867,057,007	100	-	-	-	-	-

Note: The financial information for the first quarter of 2024 has not been reviewed by CPA.

### 5.2.5 Production Value in the Most Recent Two Years

Unit : KPCS; NT\$ thousands

Year	2022			2023		
	Capacity	Quantity	Value	Capacity	Quantity	Value
Computer, Communication & Consumer electronics	140,785	88,045	933,221,797	114,402	64,854	819,188,158
Others	41,839	28,378	59,959,983	38,683	12,127	53,982,518
Total	182,624	116,423	993,181,780	153,085	76,981	873,170,676

Note: Company shall prepare consolidated financial reports of 2022 &amp; 2023 in accordance with IFRSs regulation.

### 5.2.6 The Sales Value in the Most Recent Two Years

Unit : KPCS ; NT\$ thousands

Year	2022				2023			
	Domestic		Export		Domestic		Export	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Computer, Communication & Consumer electronics	1,546	20,506,581	84,022	904,941,405	1,689	33,770,074	59,508	779,755,857
Others	809	1,138,100	27,483	58,033,070	677	1,510,860	11,432	52,020,217
Total	2,355	21,644,681	111,505	962,974,475	2,366	35,280,934	70,941	831,776,073

Note: Company shall prepare consolidated financial reports of 2022 &amp; 2023 in accordance with IFRSs regulation.

### 5.3 Taiwan Employee Data during the Past Two Years

Year	2022	2023	As of Mar. 31 <sup>st</sup> , 2024	
Employee Number	Sales	1,508	1,425	1,416
	Engineers	6,331	6,052	6,105
	Administration	1,351	1,287	1,292
	Direct Labor	2,331	2,220	2,481
	Total	11,521	10,984	11,294
Average Age	36.45	37.37	37.34	
Average Seniority	5.87	6.70	6.67	
Distribution of Education	Doctor	73	63	63
	Master	4,005	3,831	3,827
	Bachelor	5,232	4,966	5,097
	Diploma	1,236	1,188	1,287
	High School	885	863	945
High School Below	90	73	75	

### 5.4 Environmental Protection Expenditure

#### 5.4.1 Total Losses and Penalties

The loss or penalty caused by environmental pollution during the latest year and up to the printing date of this annual report: None.

#### 5.4.2 Countermeasures and possible disbursements to be made in the future: None.

#### 5.4.3 Environmental Protection Measures

The Company's current compliance with RoHS directive 2011/65/EU and other environmental protection requirements may be explained through the following aspects:

##### (1) Product Research and Development

All products developed by Wistron focus on 3 subjects- hazardous free, energy saving, and resources reduction as well as have fully conformed to the European Union's RoHS directive 2011/65/EU, (EU) 2015/863 and WEEE requirements. Furthermore, we are actively paying close attention to other environmental protection trends, such as Green House Gas, Product Carbon Footprint & Water Footprint, Halogen-free, REACH, PAHs, PFOS, Energy Star, ErP and the US EPEAT (Electronic Product Environmental Assessment Tool). Wistron use LCA (Life Cycle Assessment) method to find the hot spot of environmental impact within full product life cycle, and we have developed our own Product Carbon Footprint (PCF) system, which is based on LCA method, it can help for low carbon product development. Implement the Eco-design from product development; we strive to contribute for the betterment of the global environment.

##### (2) Production/Manufacturing

All Wistron manufacturing bases of operation have the capacity to produce environmental-friendly products; the Material Management System, Manufacturing Process Control, and Lead-free production equipment are all established. Our Taiwan, Mexico, China and Czech operation bases have been certified ISO 14001 and IECQ QC 080000 (Hazardous Substance Process Management). To ensure product compliance with relevant requirements through a comprehensive environmental quality management system. We also inventory greenhouse gas emission from production and verified by 3<sup>rd</sup> party for ISO 14064. In 2022, we've officially joined "Science Based Targets initiative, SBTi" and set a target in line with a 1.5°C and net-zero future. Moreover, because the electricity consumption is the major contribution of greenhouse gases emission, reducing power consumption is the key to decrease the greenhouse gases emission; therefore, Wistron improved the energy efficiency for major equipment and use the energy saving equipment to reduce the greenhouse gases emission and energy usage cost. We have used the renewable energy in production and have established solar power system in worldwide manufacturing sites and offices since 2017. Furthermore, Wistron has started purchasing international renewable energy certificate (I-REC) from 2020. The goal is to increase the percentage of using the renewable energy over 80% in W.W. manufacturing sites by 2025, and 100% by 2030. To analysis the efficiency of energy utilization and find out the opportunity of energy saving as well as providing framework of sustaining performance improvement of energy efficiency, Wistron started to implement the ISO 50001 energy management system in Taiwan and China Plants since 2014.

### (3) Quality Control

Wistron has established hazardous substance analysis laboratories in Taiwan, China, Czech, Mexico and Vietnam. The deployment of a global hazardous substance testing network will be enhanced. The testing capability include the RoHS ten restricted substances and the other substances e.g. Bromine, Chlorine, Arsine and Antimony, etc. We implemented the regular sampling test mechanism to ensure that components and products don't contain the hazardous substances. In addition, there are several automation projects implemented to improve the operating efficiency of laboratories.

### (4) Supply Chain Management

Wistron conducts regular audit and checks on suppliers to ensure that materials and components comply with environmental protection requirements; we change unqualified suppliers as well as hold annual vendor conference to introduce green product trend and Wistron's environmental requirements to reinforce suppliers' awareness on environmental protection. Our philosophy is to implement source management programs to minimize risks. To improve global warming is important issue to environment, Wistron has required suppliers to provide the data of greenhouse gases emission and encourage supplier to reduce the emission since every year. Furthermore, Wistron start to inventory the scope 3 of greenhouse gases emission for Taiwan office and factory since 2015. Collect the emission which is generated by employee travelling and transportation for product and materials. More manufacturing sites located in China were included in the inventory scope in 2016. In 2022, the inventory scope was expanded to 15 categories. For the emission hot spots, "purchased goods and services" and "transportation and distribution" are the major emission sources respectively in upstream and downstream value chain. Through greenhouse gas inventory, Wistron can monitor the emission contribution from the activity of our own operation or value chains. It can also provide potential opportunities for Wistron and our suppliers or customers to collaborate on low carbon electronic components development.

### (5) Personnel

Wistron has established a dedicated material analysis laboratories and green component engineering department, in charge of hazardous substance analysis and component qualification through chemical analysis. Furthermore, continuously monitor green product trend as well as provide proposal and solution. In addition, the reinforcement of employees' environmental protection knowledge and skills through actual training courses and e-learning ensures the employees in the Company shall perform relevant environmental protection tasks well.

### (6) Information System

Wistron has established a Green Product Management GPM system; suppliers may directly upload related environmental protection information into Wistron's GPM database through the internet to simplify procedures, minimize human error, and enhance task efficiency. The flexibility of the interface allows it to cope with future environmental protection requirements. Moreover, GPM could generate customized format report to declare the green product information to customers. We have implemented the GPM2.0 to enhance the system function and efficiency in 2014. We have implemented a new function to directly link the database of

testing report from the 3<sup>rd</sup> party labs and the Full Material Disclosure (FMD) information system to verify whether the hazardous substances be used in product as well as reduce the operation cost due to the repeated investigation. In 2024, the fully upgraded GPM3.0 will be launched, the system interface and framework will be redesigned and optimized. In addition, it will follow Wistron's cloud policy and the system can be upgraded iterately through cloud architecture, which can significantly reduce system maintenance manpower. Wistron's Product Carbon Footprint (PCF) system has officially launched in 2023, this system can automatically and efficiently calculate the product GHG emissions within the whole lifecycle, it can significantly reduce manual time. We began to develop the Decarbonization Management Platform in 2024, which can help to provide various carbon-related information in real time, and conduct carbon regulation impact calculations for each manufacturing site to effectively monitor the current carbon emissions status.

## **5.5 Labor Relations**

### **5.5.1 Detailed descriptions of employee benefits, training and development, retirement plan and each of the implementations, as well as the labor management agreement and employee rights preservation policies are listed in the following**

#### **A. Employee benefits**

In order to enable employees to have a high-quality working life and thereby improve productivity, the Company has always cared about and valued employee welfare. In addition to allocating welfare funds in accordance with the law, the Company established an "Employee Welfare Committee" voting welfare committee representatives to formulate annual plans and handling various activities. In addition, the Company also provides free transportation to and from work, fitness centers, employee assistance programs, employee welfare insurance plans, and organizes family days, group gatherings and other welfare activities.

#### **B. Employees training and development**

Based on the strategic focuses of global expansion, digital transformation, and sustainability, Wistron continued its efforts in cultivating its global talent in "Management capability", "Digital capability", and "Globally adaptable capability", along with an accelerated focus on cultivating "Sustainability capability", via strategic execution.

Wistron carries on success experience and continues to cultivate leadership talents at all levels. In 2023, Wistron rolled out Wistron Managerial Competency Model to its global leaders and integrated the model into day-to-day practices in recruiting, training & development, staffing, and retention, aiming to encourage our managers to apply and enhance leadership skills in daily management. The competency-based managerial training roadmap is developed in line with our key strategic needs to provide various development resources including individual development plan, one-on-one coaching, and internal/external learning resources. Through challenging development goals and assignments, we develop key talents by accelerating the accumulation of practical experience, thereby enhancing their resilience and capabilities.

Aligned with the company's digital transformation strategy, Wistron Digital Academy systematically cultivated the digital project development teams, offering technology enhancement courses, soft skills training, project implementation support, and digital talent assessments. To accelerate developing digital transformation capabilities, Wistron expanded the categories of digital talents from nine to twelve and optimized career development roadmap with clear career paths to provide various career opportunities and facilitate effective cross-domain rotation and talent retention within the organization. Additionally, more digital technology and tools were introduced such as robotic process automation, data visualization, artificial intelligence, and machine learning, complemented by project-based learning to deepen and broaden digital technology applications.

In line with globalization strategy, Wistron implemented global learning platform since 2021. Until 2023, 22 sites were implemented, covering 96% of Wistron's global operations, with over 25,000 users and more than 5,200 training batches. By offering multilingual learning resources, common language and alignment within Wistron have been established, fostering collaboration and inclusion among global employees, and promoting individual career sustainability with the company.

Looking forward, to further ensure harmonized development of talents with the organization towards sustainability, Wistron's Corporate Sustainability Office, Talent Development Team and the Core Teams of Wistron's six sustainability strategies developed the "ESG Sphere" training roadmap, offering multilingual training resources to foster deeper understanding and commitment to Environmental, Social, and Governance (ESG) principles among all employees. This initiative aims to disseminate the meanings of Wistron's sustainability initiatives and achievements, and to strengthen organizational partnerships in achieving sustainable goals. Furthermore, in line with the strategic goals of sustainability, Wistron has conducted various professional trainings based on the six sustainability strategy domains. These efforts by internal experts through hybrid (offline and online) seminars, have effectively shared best practices and facilitated the policy implementation of energy management, waste management and water management across all functional units and factories.

Human capital is the pivotal competitive advantage of Wistron and serves as the cornerstone for the company's sustainable operations. Wistron has developed competency-based training roadmaps for different functions and implemented various talent development programs in line with the company's strategic priorities, aiming to enhance human capital and sustainable business competitiveness.

### C. Retirement plan

In order to stabilize the post-retirement life of our employees, our Company has formulated "Employee Retirement Measures" in accordance with the "Labor Standards Act" and the "Labor Pension Act", which clearly stipulates employee retirement conditions, pension calculation standards, and application and payment matters. In addition to follow the "Labor Pension Act" to allocate amount of 6% of monthly pay to labor retirement funds every month for employees who are subject to this Act, the "Supervisory Committee of Labor Retirement Reserve" is established in accordance with the law and the labor retirement reserve is allocated every month in accordance with the "Regulations for the Allocation and Management of the Workers' Retirement Reserve Funds" and deposited in a special account of a statutory financial institution in the name of the "Supervisory Committee of Labor Retirement Reserve".

### D. Labor Relations

The Company has always attached great importance to employee communication and is committed to harmonious labor relations. In 2023, Wistron did not suffer major losses due to labor disputes.

#### **5.5.2 At the time of printing this publication, loss incurred by labor dispute and the amounts of anticipated losses and countermeasures:**

The date of the disposition	Number of the disposition	The violation of the provisions	Content of the violation	The amount of the disposition
2023/07/20	竹環字第 1120024466號	Article 22, Paragraph 2 of the Labor Standards Act	Wages are not paid in full directly to the worker	Fine of NT\$20,000

### **5.6 Information Security Management**

#### **5.6.1 Information Security Risk Management Framework**

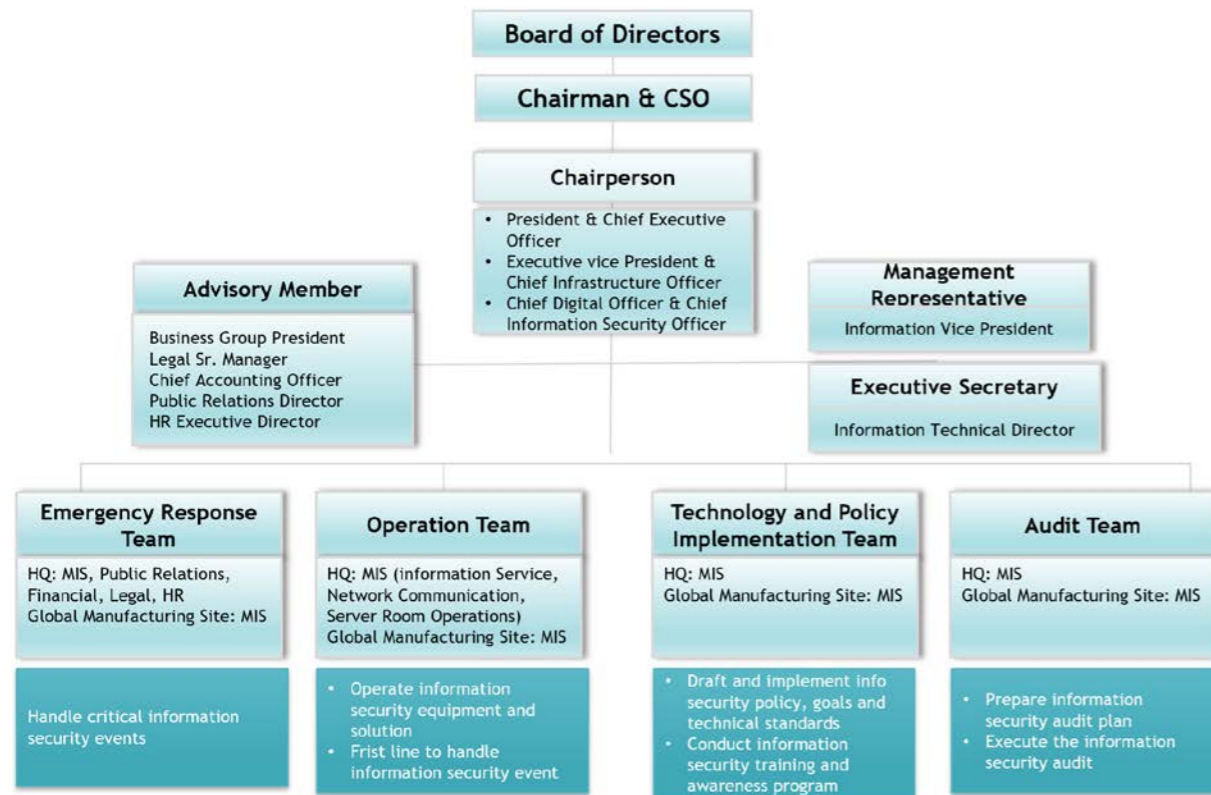
Wistron established the Information Security Committee in 2021 to supervise the Company's information security management system, technical standards, and maintenance operations. The President & Chief Executive Officer, the Executive vice President & Chief Infrastructure Officer and Chief Digital Officer & Chief Information Security Officer act as co-chairpersons and are responsible for fulfilling the Company's commitment to information security. The Vice President of IT acts as the management representative. The Information Security Governance Office was established and a supervisor is appointed as the executive secretary to organize information security matters. The Company established the "Information Security Policy" to protect the IT asset security of employees, customers, suppliers, and operations, ensuring corporate sustainable management.

The Information Security Committee convenes once per quarter. Extraordinary meetings may be convened when necessary and members of the teams must attend. The agenda of the meeting includes information security incident reports, the report of each team on the implementation of the team's affairs, issues that require the cooperation of different units, other related suggestions, or extemporary motions.

A total of 4 meetings were held in 2023 and management representatives reported the information security implementation status to the board of directors in December.



Wistron Information Security Committee Organization Chart :



## 5.6.2 Information Security Policy and management Strategy

### 5.6.2.1 Information Security Policy

In order to protect the information of Wistron Co., Ltd. (hereinafter referred to as The Company) products and services, avoid unauthorized access, modification, use and disclosure, as well as losses caused by natural disasters, and provide complete and available information in a timely manner. The Company is committed to information security management to ensure the confidentiality, integrity and availability of the company's important information property, and comply with the requirements of relevant laws and regulations, thereby gaining the trust of customers, meeting the commitments to shareholders, and ensuring the company's important business continuous operation.

### 5.6.2.2 Information Security Management Strategy

In implementing ISO/IEC 27001 information security management, Wistron focuses on regulation compliance, standardize processes, employees training and deploy security technology. It strengthens the security on data, information systems, and network. Moreover, it can protect critical business processes and systems from human-induced risks such as theft, improper use, leakage, alteration or destruction which caused by negligence, deliberate or natural disasters. With this, we can ensure the commitment to shareholders/customers and company's business continuity.

After Wistron obtained ISO/IEC 27001: 2013 certification in August 2017, we implemented

the "Plan-Do-Check-Act" (PDCA) cycle according to the standards and conduct at least one internal self-audit and one audit by an impartial third party every year. To ensure the Company's implementation of ISO 27001 management mechanisms, the Company executes re-certifications every three years to maintain the validity of the ISO 27001 certification. The certification scope has expanded to all manufacturing plants around the world in 2022 with a coverage of 100%. (Remark: Few plants which shared the computer room infrastructure did not obtain separate certification .)

In response to changes in the internal and external environment, Wistron has gradually established comprehensive network and computer-related information security protection measures from the people, process and technical aspects of information security governance. In addition to the company's continuous strengthening of information security measures, we joined the information security information sharing organization to obtain information security intelligence, information security threat and vulnerability information, such as: High-tech Information Security Alliance, Taiwan Computer Emergency Response Team / Coordination Center(TWCERT/CC); Combining external information security vendors and expert resources, we continue to pay attention to new information security information and technologies, and apply proper, timely defense or solution, to ensure management with a consistently effective approach to dealing with information security weaknesses and events, At the same time to improve rapid response and recovery capabilities to ensure the resilience of information services, and eliminate the business impact.

### 5.6.3 Information Security Operation Specific Measures

- (1) Identify stakeholder groups associated with the information security management system and regularly verify the needs of stakeholder groups for the information security management system (including customers' demands for information security).
- (2) Execute social engineering drills and information security training for employees to fully increase employees' information security awareness.
- (3) Establish comprehensive and clear operating procedures to institutionalize the operations of the information security management system.
- (4) Perform regular risk assessments to identify high risk items and invest appropriate resources to reduce or transfer risks.
- (5) Use tools and technologies to achieve timely and effective identification, protection, detection, response, and recovery.
- (6) Establish operating procedures for response and recovery in the event of information security anomalies with the aim of rapid isolation of information security incidents, elimination of threats, and reduction of the scope and extent of impact.
- (7) Perform regular disaster recovery exercises for key applications to ensure their effectiveness.
- (8) Perform regular annual internal and external audits each year to review the entire management system and ensure normal operation and continuous improvement.



- (9) Continuously pay attention to new information security development and technologies and update defense or management practices to effectively block new forms of information security threats and reduce risks for operations.

#### **5.6.4 To Invest in information security management resources**

##### **5.6.4.1 Information Security Management and Audit Mechanisms**

Wistron headquarter offices (Neihu and Xizhi Offices), and all manufacturing plants around the world have been certified with ISO/IEC 27001: 2013 information security international management standard certification in 2022. And continue to strengthen the internal control mechanism to ensure the effective implementation and continuous improvement of information security measures in each plant., we setup the mechanism of the three information security lines of defense ,including the self-inspection of the operation team, the auditing of the information security governance team and the internal auditors.

Wistron enabled Vendor Risk Management (VRM) Program in 2022. To classify suppliers, and implement them in the entire supplier management life cycle from the perspectives of security, risk and privacy. This includes the procurement phase (tier assessment, risk score assessment, contract), ongoing third party risk management (Risk score assessment and remediation), and the eventual offboarding. A total of 183 vendors were inventoried, and vendors were graded based on the importance of the services they provided, their relevance to customers and revenue, and their ability to directly access the company's network environment and confidential information. There are three levels in total. First- and second-level manufacturers with higher risk levels are required to comply with Wistron's information security assessment standards based on individual information security guidelines. A total of 6 vendors met the assessment level after risk score assessment.

##### **5.6.4.2 Strengthen information security awareness among employees**

To implement information security in its employees, the Company provides e-Learning resources and executes social engineering drills every six months to enhance the information security awareness and vigilance of each employee. Publish information security e-newsletter every month, including the latest information security trends and recent major information security events at home and abroad, so as to enhance colleagues' awareness and vigilance of information security. If an employee commits a violation of the Information Security Policy, the Company imposes penalties in accordance with the "Implementation Guidelines for Employee Rewards and Penalties" and includes the results as the basis for performance management to reduce information security risks and the impact on the Company's operations.

The email click rates for social engineering drills conducted in the last 4 years on all company employees are as follows :

Measures	Objectives	2020 Outcome	2021 Outcome	2022Outcome	2023Outcome
Execute social engineering drills every six months	Employee clicks mail on social engineering drills, click rate < 15%	H1 : 10.6% H2 : 10.5%	H1 : 10.8% H2 : 10.7%	H1 : 9.3% H2 : 10.2%	H1 : 7.4% H2 : 8.2%

Since 2021, the information security professional talent training program ( Technical Competency Model · TCM ) has been developed. Through manpower inventory, four roles of information security governance, information security engineering, information security analysis, and software development and security have been distinguished, and five levels of ability standards have been established. We conduct d ability assessments every year, and develop of talent capacity training and upgrading plans. In 2023, a total of 95 people (including 28 dedicated information security personnel) joined the information security talent training plan , confirming that the ability of information security talents keeps pace with the times.

The training conducted for general employees through online or in-person lessons in 2023 mainly consisted of information security awareness training, information security lessons, and phishing email awareness and prevention. The Company completed 22,784 hours of employee information security training for 40,296 participants. There were 46 punishment records for violating information security regulations.

In 2023, 6,776 hours of information security related seminars and training were completed by 1,632 information security employees. The main course content is divided into 6 core professional courses for the information security team. 5 Software Development Security Tips for Software Development Teams .The course content mainly consisted of the annual Wistron information security seminar, ISO 27001 information security management system lead auditor training, EC-Council CEH (Certificated Ethical Hacker) certification course, Trend Micro TCSE (Trend Certified Security Expert) certification course, CISA(Certified Information Systems Auditor),CISSP(Certified Information Systems Security Professional),CISM(Certified Information Security Manager), CCSP(Certified Cloud Security Pprofessional ) certification courses and information security related technologies seminars organized by Gartner, Microsoft, and information security suppliers.

##### **5.6.4.3 Vulnerability detection for networks and systems**

Apart from monthly internal vulnerability scans, Wistron entrusts a third party professional service to conduct network and system penetration tests each year to protect the corporate and personal information and prevent losses caused by leaks, theft, destruction, other human factors, or natural disasters. These tests reduce the impact of human factors or natural factors on the Company's operations. The purpose of the tests is to understand and evaluate the status of the company network environment and system security and verify the current information security protection safety rating and effectiveness to resolve vulnerabilities, improve operations, and strengthen system security.

In 2021, the headquarter introduced red team drill and it expanded to the global manufacturing plants in 2022. Combined with penetration testing, the company's services were comprehensively reviewed with the direct attack methods of external information security experts, and the Company's network was examined for vulnerabilities. Moreover, we checked if the protection, detection, response and recovery mechanisms of the information security operation and response team were functioning smoothly.

#### 5.6.4.4 Software Development Security

In order to control the security of the software development lifecycle (Software development lifecycle, SDLC) in advance, achieve the security of shift left (Shift Left) testing, and reduce the cost of security and maintenance of application systems, Wistron has introduced DevSecOps (Development, Security and Operations ) mechanism, and strengthened the collaboration between the development team, the operation team and the information security team. It also introduced the DevSecOps Maturity Model (DOSMM) of the non-profit organization OWASP (Open Web Application Security Project) to evaluate the overall maturity of the software and ensure that the online software meets a certain level of information security maturity. At the same time, Software Composition Analysis (SCA) technology is added to the development process to improve the safety quality of software.

#### 5.6.4.5 Information security alerts and incident management

According to the information security incident management regulations, we can ensure the institutionalization and systemization of information security incident reporting, sorting, classification, handling, recording, and tracking. When an information security incident occurs, Wistron can quickly report and handle the situation. We are able to respond in the shortest possible time to ensure normal operations. Wistron has introduced Advanced Persistent Threat (APT) monitoring and Security Operation Center (SOC) operations. Together with the resources of external information security experts, the information security operations and response teams can quickly grasp the information security alerts and incidents, strengthening and accelerating detection and response mechanisms.

#### 5.6.4.6 Disaster recovery drills

In order to ensure the sustainable execution of operations and important matters, we conduct at least once every six months for Information business operation continuity plan or emergency response plan of information security accidents to prevent the loss of service of important information systems during major disasters. We aim to utilize our disaster response capabilities and disaster recovery mechanisms to quickly restore our operations to normal or acceptable levels during key moments, in order to maintain key applications and systems and prevent operation interruption of the Company. Furthermore, the backup personnel of the data center conducts recovery testing for selected backup storage mediums or recovery equipment at least once a year, in order to confirm the readability of the backup data, the usability of the storage medium, and the possibility of important asset recovery. We aim to create effective backups and recovery procedures that can be completed within the allocated time.

In 2022, the data center personnel also chose 30 backup storage mediums for 7 major functions and systems. Recovery testing was successfully completed for the backup data. And yearly disaster recovery drills revealed that the maximum tolerable data loss time during disasters (RPO: Recovery Point Objective) is 1.0 hours. After a disaster occurs, the maximum tolerable information service recovery time (RTO: Recovery Time Objective) is 22.11 hours. The results of the drills in the past four years have all achieved the goals set by the company. The details are as follows:

Measures	Objectives	2020 Outcome	2021 Outcome	2022 Outcome	2023 Outcome
Perform critical application system disasters recovery drills annually to ensure uninterrupted business operations	RPO of SC2 Services <= 4 hours RTO of SC2 Services <=24 hours	RPO=0.5 hour RTO=21.0 hours	RPO=0.8 hour RTO=22.0 hours	RPO=0.9 hour RTO=18.83 hours	RPO=1.0 hour RTO=22.11 hours

\*RPO: Recovery Point Objective(the maximum tolerable data loss time during disaster)

\*RTO: Recovery Time Objective(the maximum tolerable information service recovery time after a disaster occurs)

#### 5.6.5 Information Security Risk and countermeasures

Wistron has established comprehensive network and computer-related information security protection measures, and continuously reviews and evaluates information security regulations and procedures to ensure the appropriateness and effectiveness, but there is no guarantee that companies are immune to emerging risks and attacks amid the ever-changing information security threats.

Because of the ever-changing threats and attack techniques, we will pay attention on security information technology and apply proper, timely defense or solution, to ensure management with a consistently effective approach to dealing with information security weaknesses and events, ensure the resilience of information services, and eliminate the business impact.

Since 2021, Wistron purchased global information security insurance policies as a group. Apart from mitigating risks, we also hope to further receive the help and resources of external information security experts through the international insurance market. To provide preventative solutions to strengthen existing information security measures, in order to respond to growing information security threats and achieve the goals of corporate sustainable management.

#### 5.6.6 Information security incidents in the most recent 4 years

No major information security incidents occurred between 2020 to 2023. There is also no confidential information leaks affected the personal information of customers and employees, and no fines or penalties were issued. For details, please refer to the following statistics on the number of violations of information security incidents and fines:

Number of information security violations and fines	2020	2021	2022	2023
Number of information security or network security violations	0	0	0	0
Data leak incidents (number of cases)	0	0	0	0
Number of information security violations that involve customer information	0	0	0	0
Number of customers and employees affected by the data leak (number of people)	0	0	0	0
Amount of fines for information security or network security related incidents (NTD)	0	0	0	0

## 5.7 Important contracts

<b>Contract Type</b>	<b>Contracting Party</b>	<b>Term of Agreement</b>	<b>Main contents</b>	<b>Restrictive clauses</b>
Purchase Agreement	Foreign and Domestic Companies	Valid	Purchase of computer products and components	None
Maintenance Agreement	Foreign and Domestic Companies	Valid	Maintenance for the hardware and software	None
License Agreement	Foreign and Domestic Companies	Valid	License of certain software and patents	None
Product Development And Supply Agreement	Foreign and Domestic Customers	Valid	The customers will purchase computer products developed and manufactured by Wistron	None
Loan Agreement	Foreign and Domestic Banks	Valid	The loan for business	None