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Corporate Management and Governance

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2.1 Operation Performance and Corporate Governance Framework

Advantech was founded in 1983. Since then, the company has been playing the role of a pioneer in developing and manufacturing high-quality and high-performance calculation platforms. We now offer various solutions and services, including comprehensive software–hardware system integration, customer-oriented design service, and global logistics support. In 1999, Advantech became a listed company in Taiwan. Advantech Headquarters is located in Neihu Science Park, Taipei, Taiwan. Based on our customers' needs, the company is divided into three major business groups: Industrial IoT, Embedded IoT, and Service IoT. We operate out of 27 countries across Europe, the Americas, and Asia. Table 2.1.1 shows our product sales performance for 2020. For more details and for production costs, please refer to pages 76 and 97 in the Annual Report.

*Note 1: See <http://www.advantech.com/contact> for the complete list.

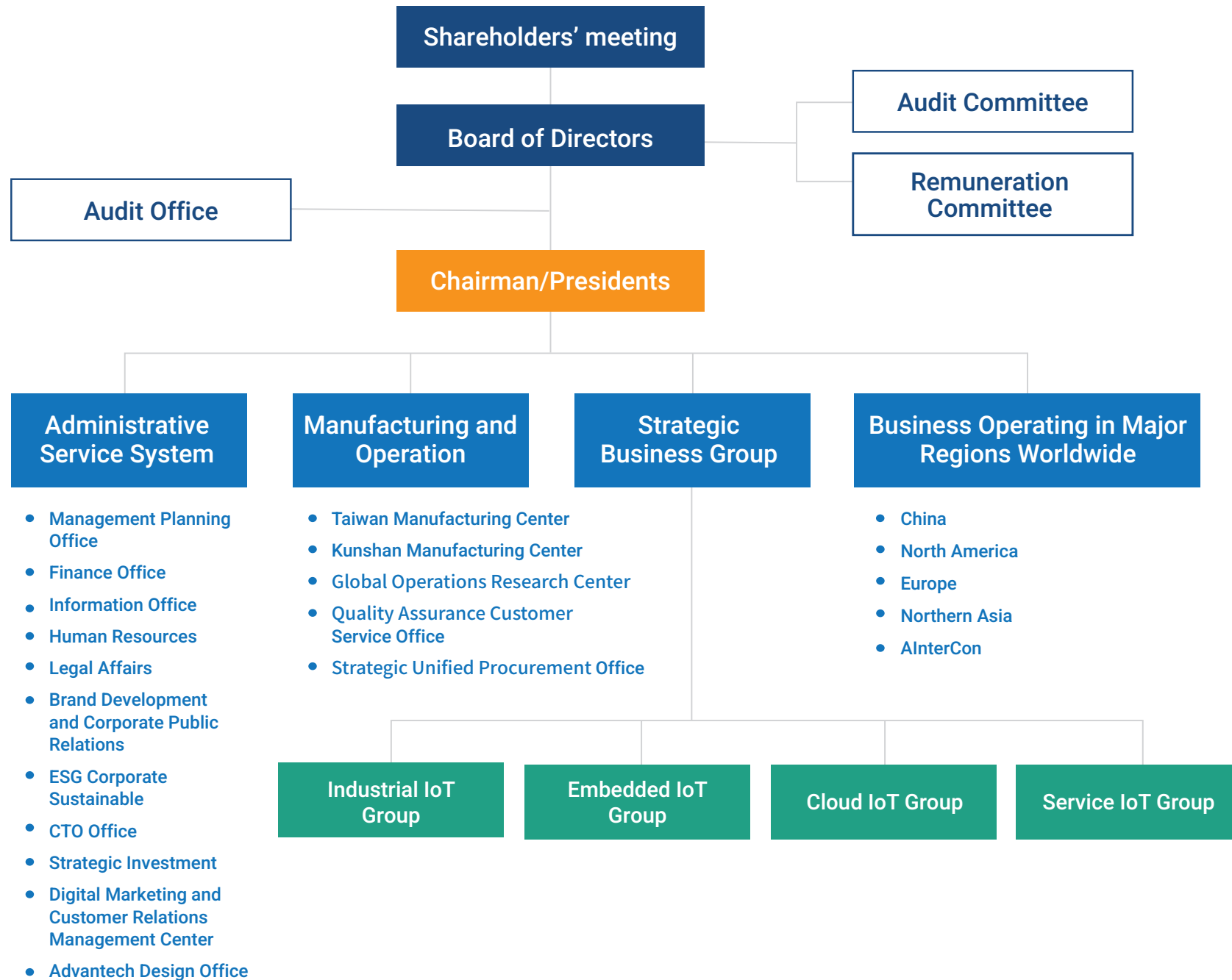
Advantech and our affiliates are mainly involved in product manufacturing, assembly, sales, and after-sales services for industrial computers. Some of our affiliates invest in technology and sales activities related to our products. Advantech's organizational structure is shown in Fig. 2.1.1. For more details, please refer to page 11-13 of the Annual Report.

Table 2.1.1 Advantech's 2020 product categories and corresponding sales performance

Major products	2020	
	Sales amount (TWD, thousand)	%
Embedded boards and systems	23,887,240	47
Industrial computers and industrial controllers	21,424,703	42
After-sales service and other services	5,807,465	11
Total	51,119,408	100



Fig. 2.1.1 Advantech organizational structure

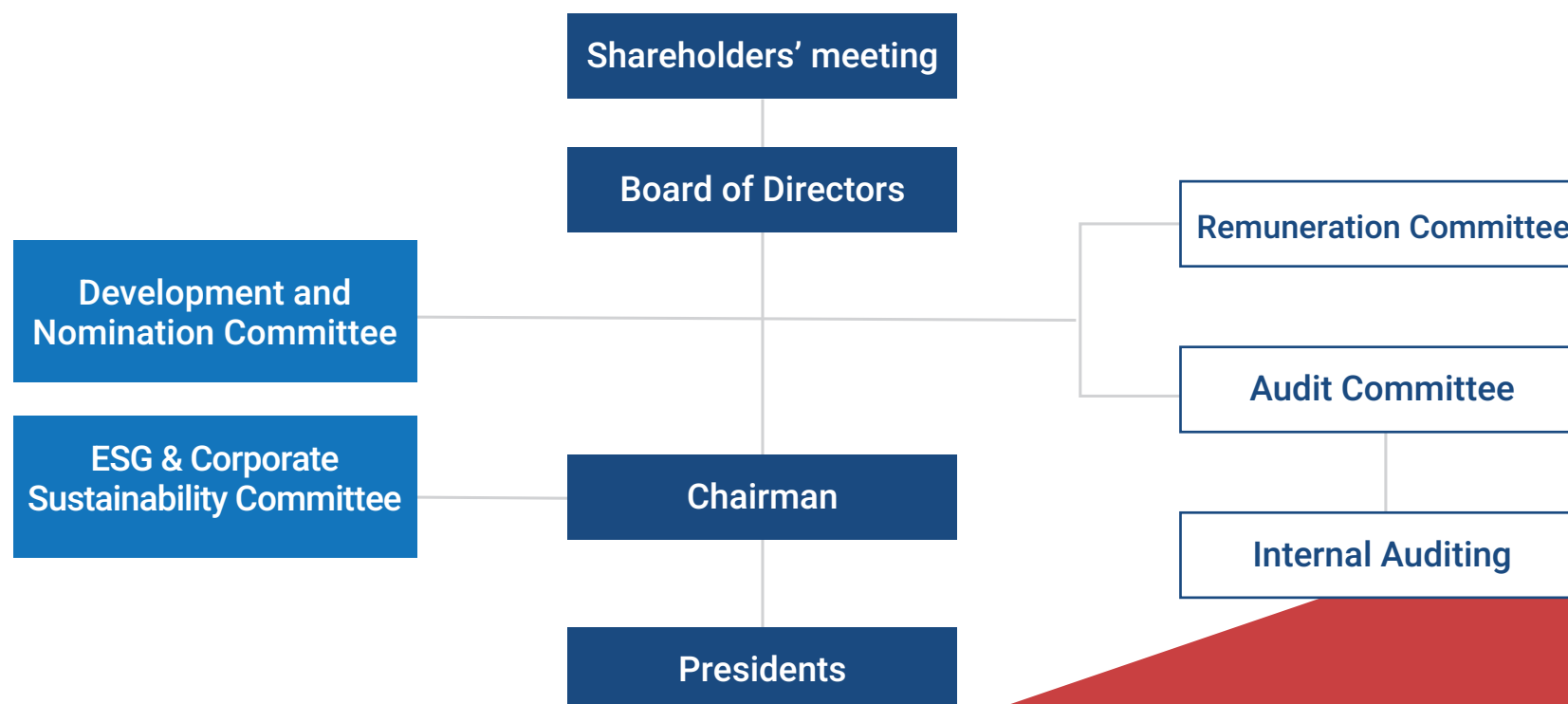


Corporate governance

Advantech values corporate governance and strives to realize the Lita spirit, and we continuously seek to strengthen the composition and functions of our Board of Directors. In addition to ensuring shareholders' legal rights, we also consider the benefits we bring to our stakeholders. Our Board of Directors follows relevant regulations and uses the powers conferred by the shareholders' meeting to establish various regulations and guidelines. The board also supervises the implementation results of various projects and operational goals. Biannually, we hold expanded board meetings to discuss topics such as industry and organizational reform, operation model innovation, succession planning, and mid- to long-term visions.

We have established the Audit Committee, the Remuneration Committee, and the Corporate Development and Nomination Committee to consolidate the various supervisory and internal auditing functions, provision of salary incentives, and mechanisms for upper-level talent cultivation. In 2020, we established the ESG & Corporate Sustainability Committee and Office with the Chairman as the responsible person, the aim of which is to more broadly promote environmental sustainability, social responsibility and giveback, and corporate governance.

Fig. 2.1.2 Advantech's corporate governance framework



Board of Directors composition and functions

Advantech's board consists of seven directors, including four directors and three independent directors with a term of 3 years. Following the candidate nomination system in the Company Act Article 192-1, the directors were selected from a candidate list at the shareholders' meeting. In 2020, the board was reelected.

The board has a diverse and professional background. Three directors have vast experience in Advantech's core industries, three are internationally renowned CEOs or senior managers of foreign businesses, and one is a famous professor. The other functional Committees invite scholars and experts to serve as consultants or become regular committee members. In 2020, six board meetings and two expanded Board of Directors meetings were held. All board members were present at all meetings.

In addition to attending these meetings, board members are often invited to discuss forward-looking topics, conduct upper management interviews, and attend industry forums held by Advantech. We offer monthly courses from the Taiwan Corporate Governance Association, Securities and Futures Institute, and Taiwan Institute of Directors for board members to select what interests they wish to pursue through study. The overall operation and performance of the board are regularly reviewed by a third party. In 2020, the review result was 6%–20%. The board members achieved an overall satisfaction rate of 95% with regard to board operations.



For more information, please refer to Advantech's official website [Board of Directors](#).

Investor relations

Shareholders and investors are key stakeholders in Advantech. When we receive questions from investors and analysts, we strive to answer them with a reasonable level of information disclosure as allowed under law. We also collect feedback and opinions as a reference for our operations management.

In 2020, due to the COVID-19 pandemic, most meetings were held online. Our Investor Relations Department participated in three external investors' forums, held four institutional investor conferences, and hosted 82 investor phone meetings with over 700 investors.

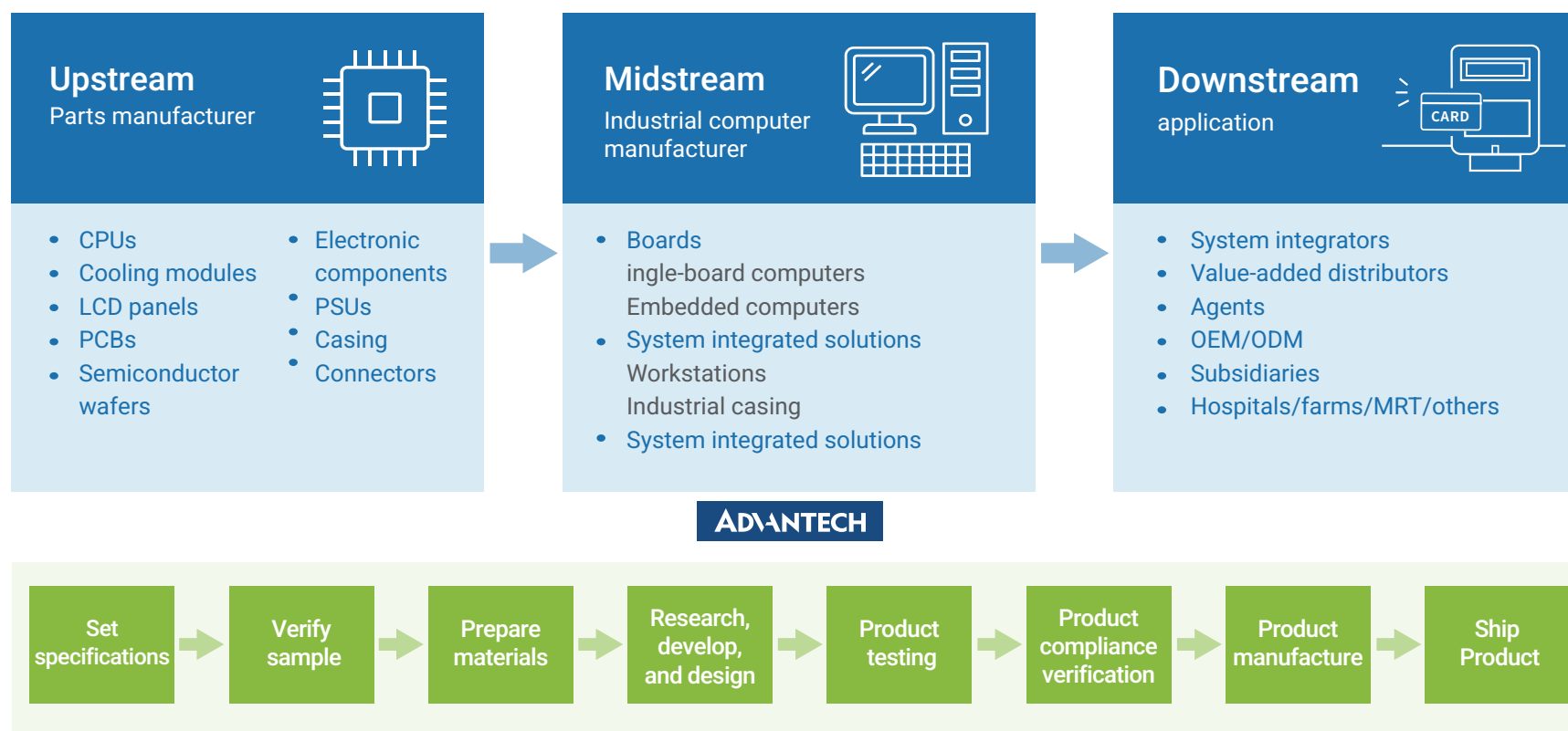


2.2 Supply Chain Sustainable Management



Advantech's operations philosophy is to create a win-win situation with its suppliers and consumers and to establish a sustainable IoT supply chain ecosystem where all supply chain partners adhere to principles that promote an ethical and environmentally friendly supply chain and production management practices. Advantech provides services in industrial IoT sector. Our main manufacturing process involves purchasing components from upstream suppliers, assembling and manufacturing devices, and then delivering products to our clients. Because of the characteristics of our industry, the products we purchase vary considerably and are highly customized. To date, we have more than 10,000 items listed in our supplier database. Procurement and Quality Assurance teams regularly assess our suppliers to ensure supply chain stability and supply quality, and to understand the processing ability of suppliers. Items of consideration when evaluating suppliers include product quality, timeliness of delivery, degree of cooperation, industrial safety management, and CSR management, and we constantly communicate with all of our suppliers on these matters. We have "Corporate Social Responsibility and Supply Chain Sustainable Management" in our supply chain assessment regulations to ensure that any cooperation will be at minimal cost. Our goal is to achieve the highest level of quality and sustainable value in our products and services.

Table 2.2.1 Advantech industry value chain



Material topic management policy/management framework

Material topic	Supply chain sustainable management
Criticalness to operations	We establish stable and friendly relationships with our supply chain partners under our corporate sustainability philosophy. While we seek to ensure the highest level of quality, we are devoted to environmental protection and hope that by establishing a sustainable supply chain, we can engage in CSR together with our partners.
Management policy	<ul style="list-style-type: none"> Suppliers are required to comply with the Advantech Supplier Code of Conduct. We ensure this by clearly informing our suppliers on the standards we require them follow. We establish short- and mid-term critical goals as well as concrete measures to effectively promote and consolidate them. We regularly identify high-risk ESG suppliers. We conduct auditing and require them to improve any shortcomings within a certain period of time, thereby reducing their risk level to medium or low.
Goals and effectiveness	To improve management, we annually examine set management policy goals to evaluate whether KPIs have improved from the previous year.

Item	2020 results	Goals for 2021	Goals for 2025
Key suppliers (PVL)	<ul style="list-style-type: none"> 100% of our PVL met our CSR commitments 100% of our suppliers signed that they do not use conflict minerals 	<ul style="list-style-type: none"> 100% of suppliers to meet the Advantech Supplier Code of Conduct 100% of our suppliers to not use conflict minerals Zero environmental pollution, violation of human rights, and major occupational hazard incidents 	100% of suppliers to undergo a complete ESG risk assessment
High-risk ESG suppliers	Performed assessments and planning to identify and manage high-risk suppliers.	100% of high-risk ESG suppliers to pass ISO 14001	Defect improvement rate to reach 70%

Project highlights and performance

100%

All key suppliers on our PVL have signed the Supplier Code of Conduct Agreement

100%

All new suppliers in 2020 have passed the environmental code assessment

100%

All key suppliers on our PVL have signed a declaration to not use conflict minerals

82%

Advantech's local procurement ratio reached 82%

100%

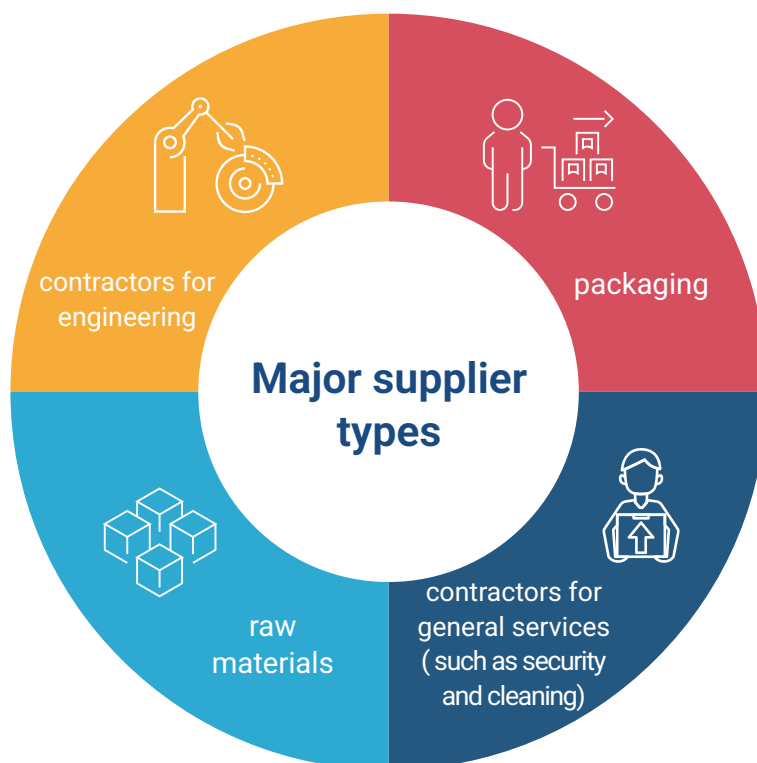
All suppliers were audited in 2020

2.2.1 Supplier management

Supplier composition

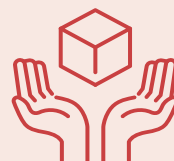
Our products and services are designed largely for IoT, automation, and embedded computing. This requires us to cooperate with more than 1,000 suppliers worldwide. Major supplier categories for Advantech are raw materials and packaging, in addition to contractors for engineering, security, and cleaning. Raw material suppliers in particular have a substantial influence on our operations and production. We divide these suppliers into two categories: direct material suppliers (whose materials are directly related to production) and packaging material suppliers (whose materials are either related to packaging or not directly related to production).

To effectively manage raw material suppliers and allocate resources appropriately, we screen all suppliers for those whose annual procurement amount is high, those who offer key raw materials, and those whose materials cannot be replaced. We categorize these suppliers as key Level 1 suppliers. Our key raw material suppliers are identified through an integrated management approach.



Tier 1 suppliers

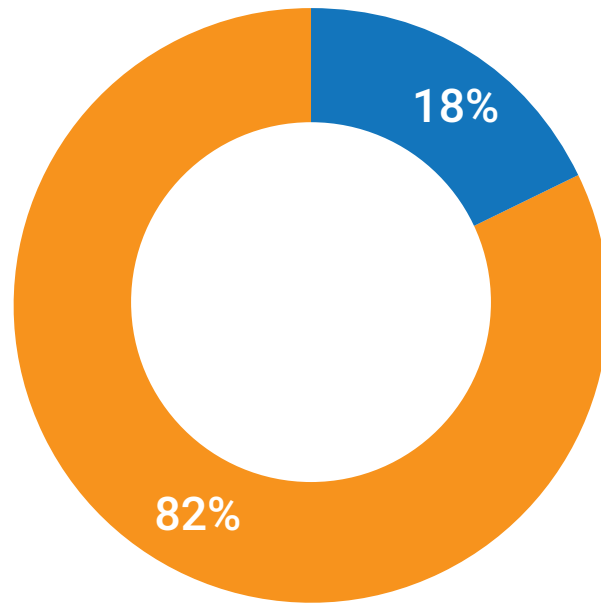
Suppliers who provide Advantech with direct or indirect materials



Key suppliers

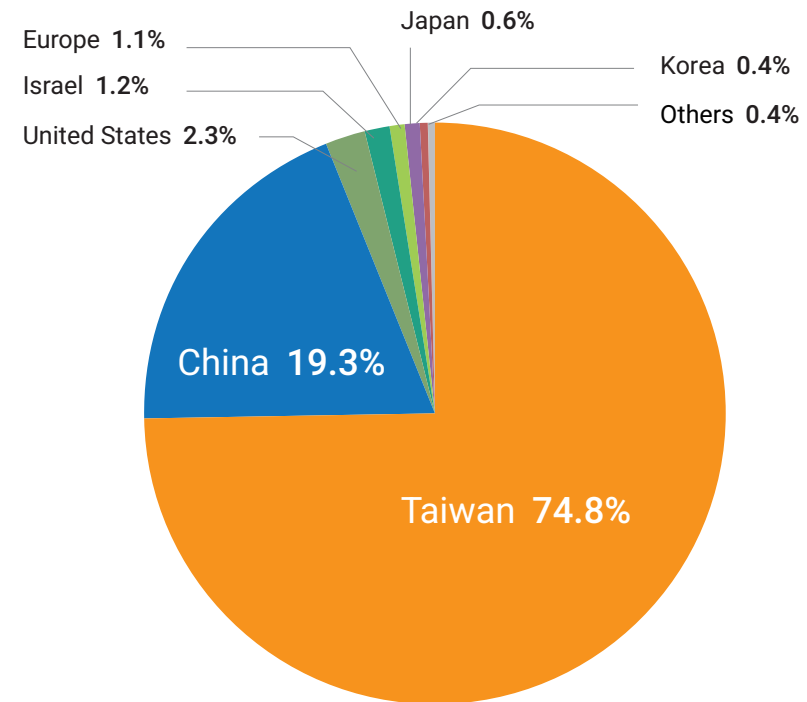
High-volume suppliers and those who provide critical raw materials that cannot be replaced. These are our PVL suppliers.

2020 distribution of key and non-key suppliers



Key suppliers Non-key suppliers

2020 distribution of raw material suppliers

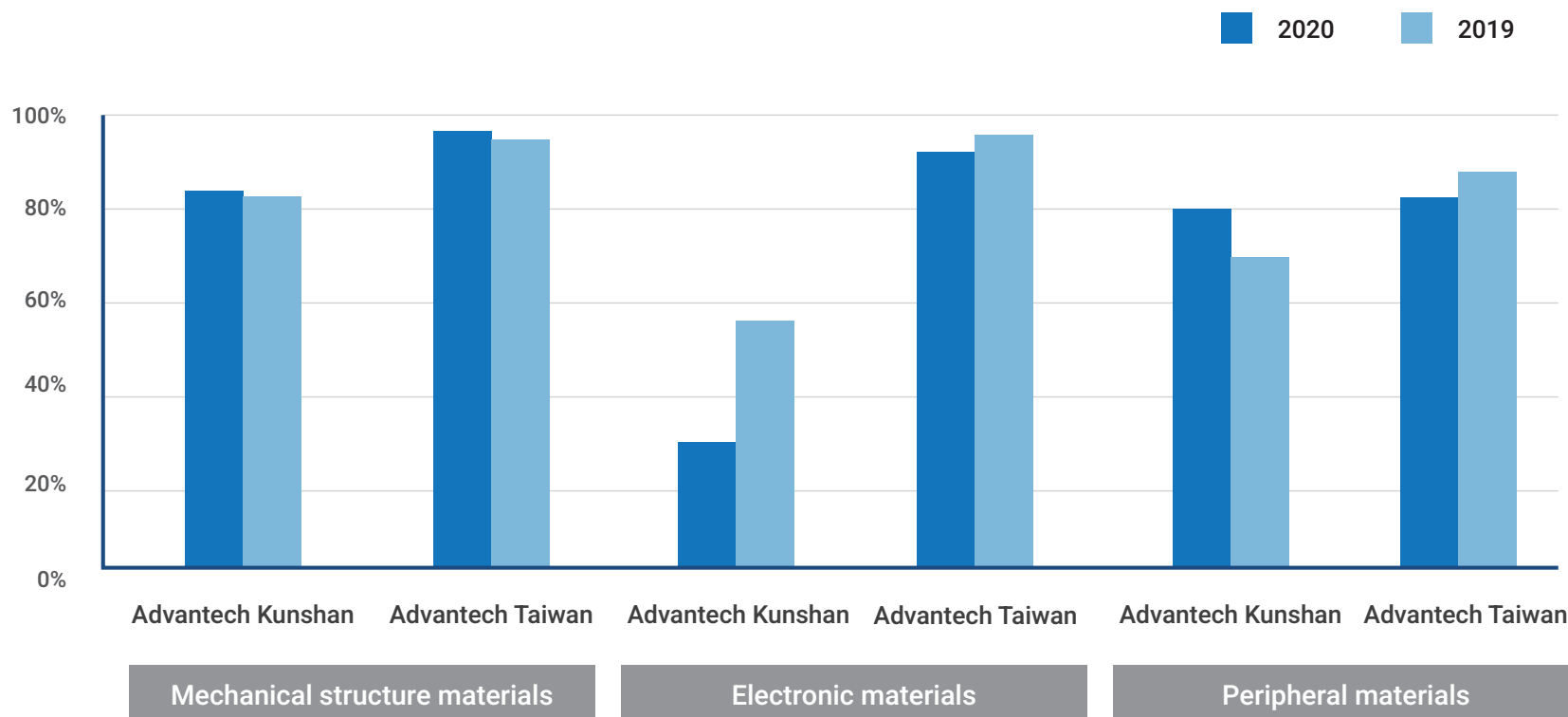


Taiwan China United States Israel
Europe Japan Korea Others

Cultivate local suppliers

Advantech continues to utilize its local procurement strategy to establish close relations with local partners to create local job opportunities while working to reduce CO2 emissions from manufacturing and transportation. Over the years, we have prioritized local suppliers of products that meet RoHS/HSF regulations. Overall, in 2020, Advantech Taiwan's local procurement ratio was approximately 88%, while that for Advantech Kunshan was 63% (the lower percentage is attributed to some electronics and peripheral raw materials having been procured by Advantech Taiwan*). Figure 2.2.1 illustrates the local procurement figures for the past two years.

Fig. 2.2.1 Local procurement statistics for Advantech Taiwan and Advantech Kunshan



*Note:

(1) Local procurement is defined as trading with manufacturers in Taiwan for Advantech Taiwan and trading with manufacturers in China for Advantech Kunshan.

(2) Despite the switch to a self-procurement strategy, the local procurement ratio of electronic materials in Kunshan was lower in 2020 because most of their suppliers were operating in Taiwan.

Supplier management strategy

When we onboard new suppliers, we require them to sign a procurement contract to ensure that delivery dates, quality, and warranty regulations are met. Of particular importance, we require suppliers to immediately inform us in the event of a natural disaster or any humanmade difficulties that may delay deliveries. For common electronic components, we have mechanisms in place to procure components from secondary sources. For major materials, we maintain safety stock to prevent shortages or quality problems.

For different materials, we have dedicated procurement personnel monitoring market information for weekly and monthly review at supervisor meetings. To centralize procurement, we have established a preferred vendor list (PVL) of outstanding suppliers. In addition to achieving highly efficient cooperation with PVL suppliers, this approach to risk management ensures that the materials we procure are of high quality and delivered on schedule.

Advantech is proactively involved in developing our supply chain to realize the goal of sustainable development together with our suppliers. Our procurement strategy is to have multiple suppliers so that we not only have an alternative source for materials, but because this approach also promotes market competition. It diversifies our procurement risks and reduces costs. We require suppliers to sign an agreement that they will comply with the Advantech Supplier Code of Conduct. To establish a sustainable line of procurement, it is critical that they adhere to all laws and regulations in the country or region where they operate, and this extends to labor rights, health and safety, the environment, corporate ethics, and their management model. Suppliers are also required to ensure that these requirements are also met by their suppliers further down the supply chain.



For 2021, we plan to regulate material suppliers to complete an ESG sustainability risk assessment questionnaire. The content of the questionnaire will cover law compliance, sustainable management, supplier management, conflict minerals management, environmental protection, health and safety, labor rights, and human rights. This will help us better understand our suppliers' sustainability risk. As necessary, we will conduct on-site audits to ensure that suppliers meet our sustainability standards. We also expect suppliers to continuously work toward improving their sustainability performance by encouraging (and in some cases requiring) both existing and new suppliers to obtain certification for international standards such as ISO 9001, IATF 16949, ISO 14001, ISO 45001, and ISO 14064-1.



On the topic of environmental management, Advantech incorporates strict environmental protection principles in our supplier management mechanism. Since 2010, we have been following the Responsible Business Alliance (RBA) management system (formerly the Electronic Industry Citizenship Coalition). We have since expanded our scope and called on our suppliers to promote CSR values by adopting such measures as regulations prohibiting the use of conflict minerals. To date, our management of selection indicators for all suppliers has included critical CSR indicators such as RoHS (HSF) QC080000, ISO14001, ISO 45001, and RBA, which regulate the localization of suppliers. We also require all suppliers to maintain basic human rights and comply with labor regulations. The aforementioned index is listed under new supplier audit items via the Supplier Audit Table.

Our Purchasing and General Affairs departments manage our suppliers and contractors (including security companies) to ensure they follow the equality principle in the Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy of the International Labor Organization. Table 2.2.2 shows an overview of the management principles we apply to our suppliers. In the future, we will gradually work with more suppliers to help them achieve high standards in CSR.

Product substance management and the environment

The IECQ QC 080000 system has been introduced at all of Advantech's main plants. We employ the Green Product Management (GPM) system to conduct material procurement management based on the risk level of the materials we use in our products. Both Advantech Taiwan and Advantech Kunshan require suppliers of raw materials or packaging materials to follow the company's No Hazardous Substance Management Operation Procedures. All raw materials must meet international environmental protection regulations, such as Restriction of Hazardous Substances (RoHS); Registration, Evaluation Authorization and Restriction of Chemicals (REACH) of the European Union; Substances of Very High Concern (SVHC); and Persistent Organic Pollutants (POPs).

Since 2010, Advantech has been promoting a green supply chain management system, using GPM as a shared platform for promoting environmental information for supply chains. We deliver the latest international environmental protection regulations to our supplier partners in a timely manner, giving them a reference for law compliance and for constructing material supply systems. On this supply chain platform, suppliers must promise that their products do not contain hazardous substances prohibited by Advantech, and they are required to provide the following information:

- Toxicity and prohibition information (MSDS/MCD) on relevant chemical substances they use
- Review results on their green product management system



Table 2.2.2 Management principles for suppliers and contractors

Type	Management principle	Implementation percentage	Focus for future management
All key PVL suppliers (All 270 have signed a contract)	Implement supplier inspections and sign the Supplier Code of Conduct Agreement	100%	Clearly state CSR terms in the agreement
New suppliers in 2020 (All 21 new suppliers received an inspection)	The Supplier Inspection Table is employed for assessment (16 items on environmental health and safety, 16 items on labor and ethics regulations, and 13 items on HSF)	100%	Maintain the percentage of on-site inspections
	Environmental principles are adopted to assess new suppliers, including an assessment of environmental, safety, and health principles; supports and commitment from high-level managers; concrete effort to promote our principles among employees; compliance with environmental regulations; and external communication	100%	Maintain the percentage of on-site inspections
	Adopt social principles to assess new suppliers (social principles include whether employees are free to choose their occupation, whether a company exploits child labor, whether employees are paid according to regulations, and whether the discrimination is forbidden.)	100%	Maintain the percentage of on-site inspections
In 2020, inspection was conducted to existing suppliers (All 72 planned inspections were successfully completed)	The Supplier Inspection Table is employed for assessment (16 items on environmental health and safety, 16 items on labor and ethics regulations, and 13 items on HSF)	100%	Increase the percentage of on-site inspections
Contractors such as security, cleaning, and engineers	Sign the Contractor Environmental Health and Safety and Supplier Code of Conduct Agreement	100%	Clearly state human rights terms in the contract

*Note: Due to COVID-19, on-site inspections could not be conducted in 2020. Instead, document review was adopted as an alternative. Additionally, data on contractors does not include Kunshan.

2.2.2 Sustainable supply chain management

Advantech hopes that through its international influence, we can deepen relations with global clients and cooperating partners to create value in corporate sustainability. In addition to complying with the RBA code of conduct to assess labor, environmental, and ethics management in our operations, we are proactive in ensuring the sustainable management of our supply chain. Our efforts to promote sustainable development throughout the supply chain including prohibiting our suppliers from engaging in forced labor or child labor, and we will cease cooperating with any supplier who severely violates these regulations. In 2020, there was no instance of having to terminate our cooperation with any supplier due to them engaging in forced labor or child labor.

Supplier sustainable management procedure

To consolidate Advantech's procurement and supply chain policy, we have established a four-stage procedure for managing supply chain sustainability. Through annual roll refinement and circulation, we ensure that our suppliers meet our standards and in doing so we help them improve their sustainable performance.

To better understand the sustainable development situation and suitability risk within the supply chain, in addition completing the existing supplier assessment, we will also commence conducting supplier ESG risk assessments from 2021. To ensure that we can effectively control and minimize any risk, the ESG survey will be used to identify suppliers with potentially high economic, environmental, or societal risk. When necessary, we will conduct on-site audits to ensure that suppliers comply with our standards on sustainability.



Supplier assessment

Each year, Advantech conducts on-site inspections of high-risk ESG suppliers in accordance with our procurement procedure. The Supplier Inspection Table is used to check their manufacturing processes, quality, environment, health and safety, labor conditions, and CSR management. Using the supplier management platform, we review suppliers quarterly on the basis of their quality, timeliness of delivery, and level of cooperation. For suppliers who score lower than 80, our procurement team will immediately search for new suppliers and cease procuring from them once substitutes have been found. We will consider working with them again in the future if they are able to demonstrate their improvement. Following inspection of high-risk component manufacturers, we provide supervision or coaching on any suitability problems we identify in the previous year. For common electronic parts, we have established backup suppliers. For major materials, we maintain a safety inventory to prevent material shortages or quality problems.




Advantech supplier assessment item category



Advantech has a diverse product portfolio and works with over 1,500 raw material suppliers. In 2020, based on trading volumes and quality risk, we selected 72 existing suppliers (60 in Taiwan and 12 in China) for on-site inspection. We provided coaching to suppliers where shortcomings were identified, and this was fundamentally aimed at improving their quality. These suppliers were required to demonstrate improvement within a given time period. Further analysis revealed that most deficiencies were related to quality and manufacturing process control. Most suppliers did not have any major deficiencies in their CSR performance.

Regarding new supplier selection, suppliers whose products are widely adopted in the industry and whose quality systems demonstrably meet international standards may be listed as qualified manufacturers if sufficient proof is provided. Other suppliers must undergo on-site inspections. Key inspection points include quality, environment, health and safety, and CSR performance. In 2020, we inspected 21 new suppliers, 12 of which were approved (8 in Taiwan and 4 in China).

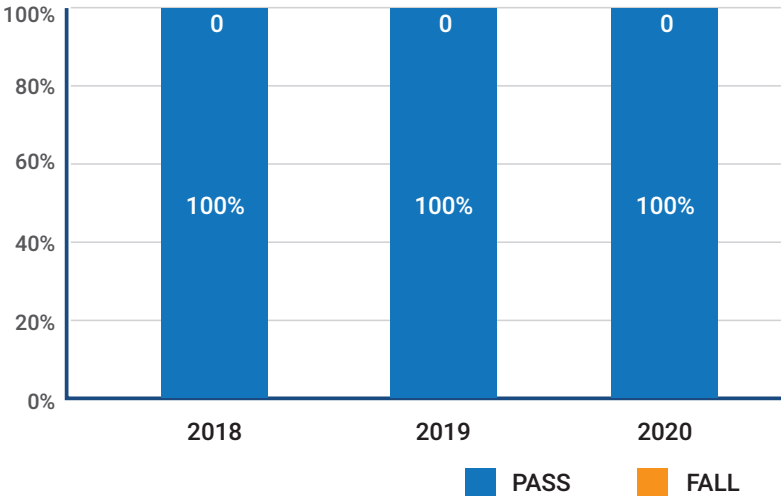
Table 2.2.3 Supplier auditing deficiencies and improvement actions (2020)

Category	Major deficiencies discovered	Improvement action
 EHS management	One supplier had established appropriate environment, health and safety directions for activities, products, and services, but they did not promote and implement them.	We requested the supplier to reinforce the promotion of its environment, health and safety policies.
	One supplier had established environment, health and safety goals and indices that considered major environmental factors, such as its activities, products, and services, but they were not certified by a third party.	We requested the supplier to apply for ISO-14001 certification.
	One supplier did not establish a system for reducing waste or for energy conservation.	We requested the supplier to regularly conduct inspections to ensure the classification and storage of hazardous substances.
 Social responsibility	One supplier had established a mechanism for the identification, assessment, and control of worker safety hazards, but they did not implement it.	We requested the supplier to conduct regular assessments pertaining to worker safety hazards.
 Management of zero HSF	One supplier had established a zero HSF policy and goals, but they did not regularly assess them.	We requested the supplier to regularly assess their policy and goals to reinforce their HSF management.
	One supplier had appropriately labelled machines, working tables, equipment, and fixtures used for producing HSF products, but they did not regularly conduct inspections to ensure that hazardous substances were correctly categorized.	We requested the supplier to regularly conduct inspections to ensure that hazardous substances were appropriately classified and stored.

▲ Conflict mineral procurement strategy

Advantech complies with the RBA Code of Conduct. Through our actions, we wish to demonstrate that our entire supply chain respects human rights. As such, we have a strict policy of not using conflict minerals in our products. We declare and guarantee that we do not use metals procured from conflict mines, and we require our suppliers to comply with this standard and guarantee that will not use such materials themselves. As of 2020, 100% of Advantech’s key suppliers have signed the Declaration of Not Using Conflict Minerals.

Our policy and demand for our suppliers to not use conflict minerals is communicated via our green procurement website. Key suppliers must comply and forward our policy to their suppliers along the supply chain. In addition, suppliers must conduct to a reasonable extent a reasonable country of origin inquiry (RCOI) for any minerals they use, so as to ensure they do not purchase conflict minerals (3TG*). The RCOI survey consists of the following steps:



STEP1 Conduct inventory

Through the Conflict Minerals Reporting Template (CMRT), we survey the source of minerals used by suppliers and identify those from a 3TG smelter.



STEP2 Sign an agreement

Key suppliers must sign an agreement that they will comply with Advantech's conflict mineral policy and ensure that they correctly and comprehensively disclose the source of their smelters.

*Note: *3TG: minerals mined from the Democratic Republic of Congo and its peripheral countries, such as tantalum, tin, tungsten, and gold.

2.3 Risk Management Mechanisms

Our perspective on risk management is threefold: to protect and increase company value, to structurally and systematically assess existing and potential risks the company may face, and to respond with decisions that align with the company's operational goals and strategies. We believe this view provides more opportunities for promoting continuous improvement. As an international leader in our industry, we continue to pay attention to and improve upon a range of risk management topics.

In preparation for emerging risks and any other possible risks that may interrupt our business operations or damage our reputation, we established the company's Risk Management Policy in 2008 and Business Continuity Plan in 2009. By regulating how operations are managed when a risk is identified, we are not only able to minimize any possible impacts and influences when a risk actually occurs, but we are also in a position to respond accordingly and adapt as necessary. Furthermore, whenever we face risk, we strive to provide transparent, immediate communication with any and all stakeholders who might be affected.

Improvement plan

The year 2020 saw sweeping changes occur in many industries worldwide. Changes in international trade, the subsequent wave of digitalization following the impact the COVID-19 pandemic, and cybersecurity incidents were major risks that Advantech has faced in the past year. We therefore believe it essential to reinforce existing organizational structures and procedures pertaining to risk management. In late 2020, we held several meetings to discuss how to improve the company's risk management. In addition to reviewing our risk management governance framework, the operation of the risk management committee and our SOP for risk management, we plan to complete updating relevant guidelines in 2021 Q1. In the future, we also plan to promote risk management in a more systematic and structured manner. At the beginning of each year, we will review both existing and emerging risks in our operations and quantitatively confirm any major risks. The Risk Management Committee will then review and follow-up on the assessment each quarter, and any major risks that are identified will be presented to the Board of Directors and the Auditing Committee, and to be discussed and traced. The plan will then be adjusted quarterly based on actual risks and impacts.

Emerging risk: COVID-19

Given the international situation resulting from the COVID-19 pandemic, we paid close attention to our risk management principles in 2020. Internally, we offered employees letters from the President in both English and Chinese and provided weekly briefings on employee health and operations (e.g., employee health status, which offices were operating, and the status of part procurement, logistics, and factory operations). We also established a designated website for internal employees to communicate key information and facilitate changes in the workspace (e.g., health status of employees at each location, principles for working from home, and download links for relevant tools). Externally, we released press releases in English and Chinese to provide updates on the company's status, and this information was also communicated via the company website. Also, higher level managers conducted two live global broadcasts in English to share information on this topic.

Improvement plan

Advantech established an SOP for emerging risks. This SOP has been confirmed by our Risk Management Committee, who set the expected risk response timing.

Table 2.3.1 Risk category and management

Category	Risk	Management strategy
Material procurement risks	Shortage risk	<p>Supplier management When Advantech takes on a new supplier, we require them to sign a procurement contract to ensure that delivery times, product quality, and warranty regulations are all met. In particular, suppliers are required to immediately report any delivery delays resulting from either natural or human made disasters.</p> <p>Safety stock For common electronic components, we have mechanisms in place to establish and manage secondary sources. For major materials, we have safety stock to avoid the risk of material shortages or quality issues.</p> <p>Centralized procurement Advantech's approach to material procurement management is diverse. Specific procurement personnel designated to monitor the market, and weekly and monthly meetings are held to examine market dynamics. We adopt a centralized procurement strategy and have built up a preferred vendor list of outstanding suppliers. Through convergence and concentration, we achieve high-efficiency cooperation with suppliers, thereby ensuring high-quality materials and stable delivery.</p>
Financial risk	Exchange rate risk	Advantech's operational activities and the net investment of foreign operating organizations are primarily conducted in foreign currencies. To avoid losses on foreign currency assets and fluctuations in future cash flow due to changes in exchange rates, we leverage the pre-sale of foreign currency hedging contracts to reduce risk. The hedge rate for 2020 was 0%–75%.
	Interest rate risk	Advantech holds bank savings under floating interest rates. We regularly monitor the interest rate risk, which is reviewed by management. When needed, we consider taking essential hedging measures on significant interest rate risks.
	Other price risks	Advantech holds listed and OTC equity securities investments as well as beneficial certificates of open-end funds. The risk is controlled by holding portfolios of varying risk. Also, because the price risks for Advantech primarily center on equity instruments and beneficial certificates of open-end funds in Taiwan, the risk is relatively low.
	Credit risk	To reduce financial losses due to trading partners delaying the fulfillment of contractual obligations, Advantech has a designated team responsible for determining credit limits, approving credit, and other monitoring procedures to ensure that appropriate action is taken on overdue receivables. In addition, on daily balance sheets, we review the amount of money that can be retrieved to ensure that receivables that are not received will be recorded as an impairment loss.

Category	Risk	Management strategy
Financial risk	Liquidity risk	By effective management and maintaining sufficient cash and cash equivalents, Advantech can support operations and reduce impacts on cash flow fluctuations. Management supervises the bank financing limits and ensures that the company complies with any and all loan contract terms. The ultimate responsibility of liquidity risk management lies with the Board of Directors. Advantech has established an adequate liquidity risk management framework to respond to short-, mid-, and long-term demands in financing and liquidity management.
Information security risk	Cybersecurity threats	On the basis of information security policies and the ISO/IEC 27001:2013 standard, the Information Security Governance Taskforce establishes, implements, maintains, and continues to improve the information security management system.
Climate change risk	Transition Risks	Promote data inventory to understand the current situation on greenhouse gas emissions and energy use. Carbon reduction goals are then based on the inventory results. Consider government policies on using renewable energy when planning the purchase of renewable energies and obtaining licenses and carbon credits. Ensure service quality and provide green and low-carbon products and services.
	Physical risks	Establish risk management procedures and build disaster prevention and response capabilities. Consolidate supplier assessment mechanisms to strengthen supplier quality and environmental management ability. Increase the number of approved backup suppliers. Each year, regularly conduct supplier audit management.

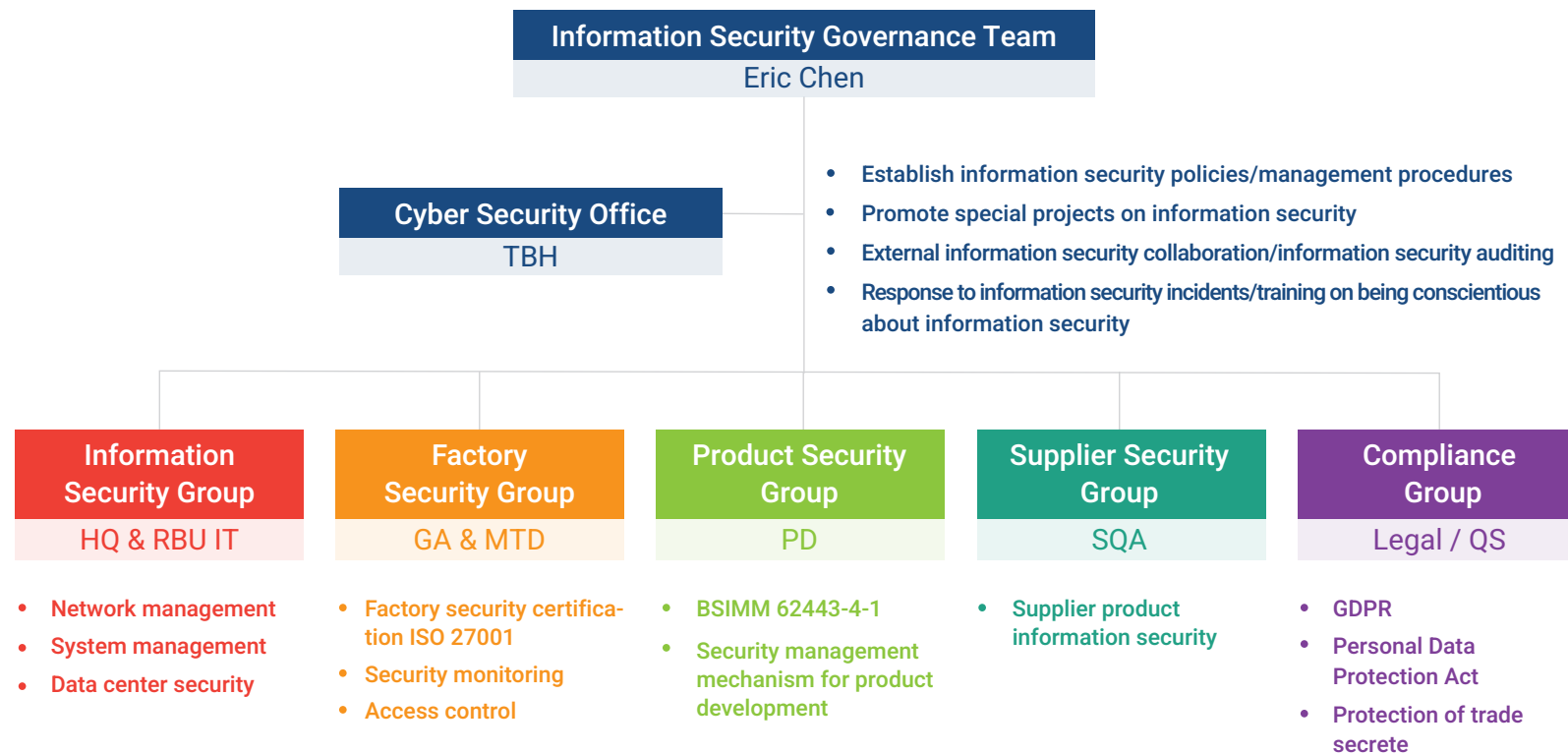
2.4 Information Security Management

Information security policy guidelines

Advantech strives to offer reliable and secure solutions for customer projects. In the face of emerging and evolving cybersecurity threats, we have proposed the following information security policy guidelines:

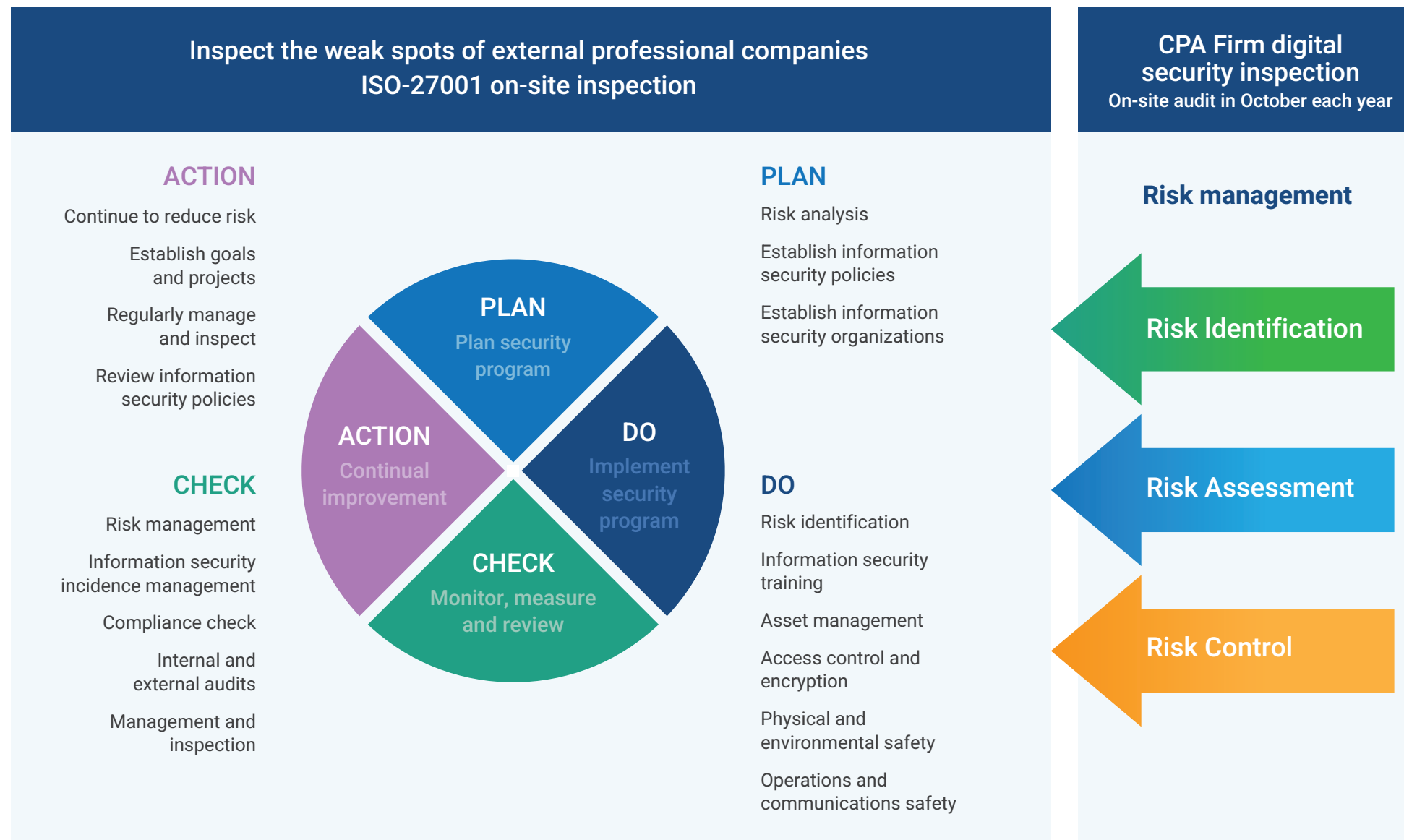
- Establish a designated information security organization and management procedure to ensure the confidentiality, integrity, and availability of Advantech's information assets. Value and protect the data privacy of all users and clients. Offer comprehensive security measures and improve system availability and reliability.
- Incorporate IT backup mechanisms as well as reliable and secure backup solutions. Regularly host disaster drills to help control any potential damage the company may experience from interruptions.
- For critical operating systems and operating activities, obtain third-party information security certification. Regularly conduct external inspections, especially for production and assembly plants and critical e-commerce platforms websites.

Information security governance organization



Information security governance operation

Advantech establishes, implements, maintains, and continuously improves its information security management system in accordance with the ISO / IEC 27001: 2013 standard. The processes involved in the Information Security Management System (ISMS) are based on the following PDCA model:



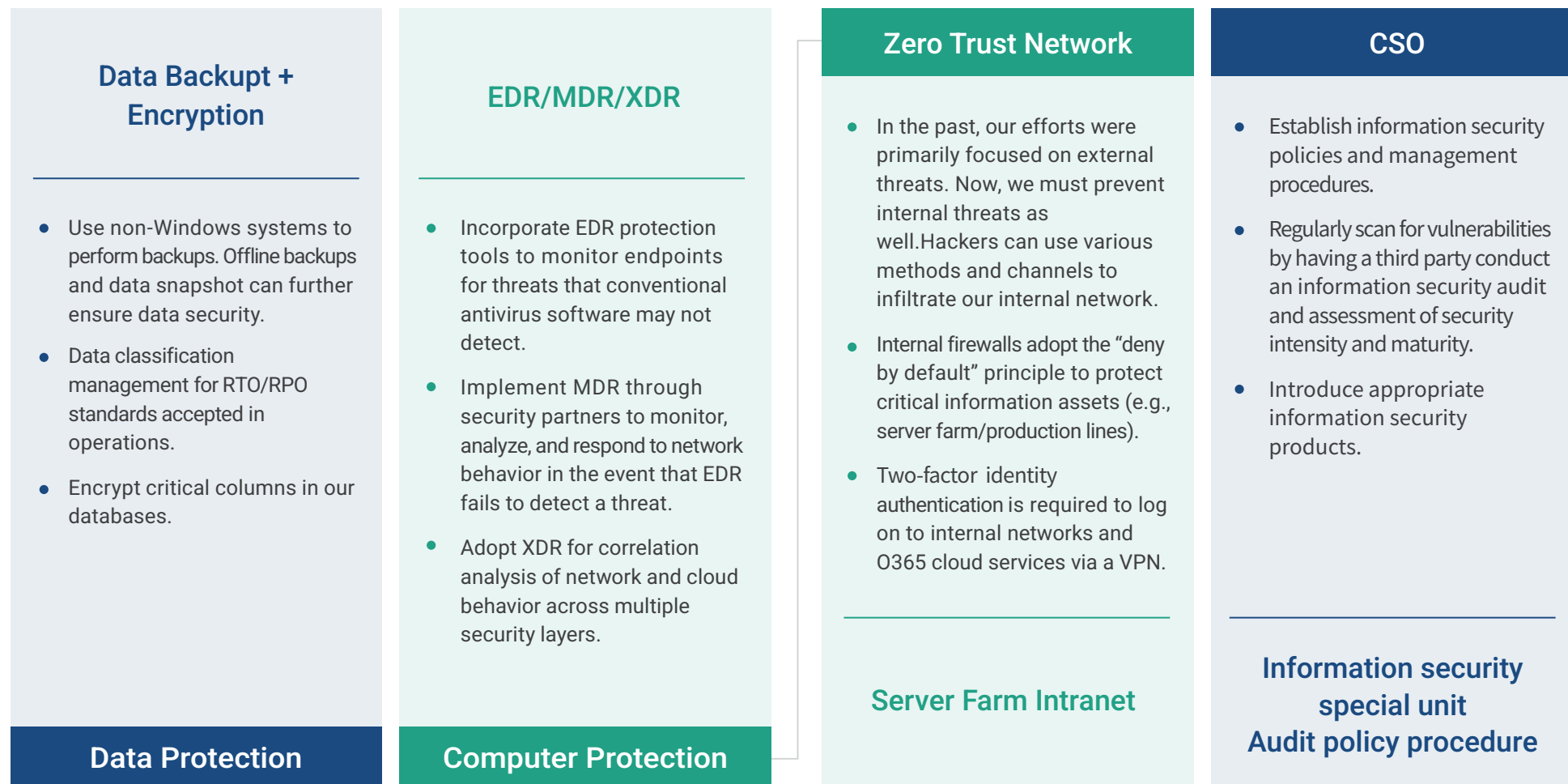
Assessing the effectiveness of information security management policies

Regarding information security management, our mechanism for assessing the effectiveness of management policies is to commission a third party to audit our information security management procedures. From July to November 2020, we commissioned Deloitte to assess the maturity of our information security. The assessment results are as follows. We will continue to work toward achieving our goals.



Information security reinforcement

In response to the emerging Ransomware-as-a-Service (RaaS) cybersecurity threat, we are reinforcing the following four aspects:



Major security incidents and handling

Description

On November 20, 2020, Advantech was subject to a ransomware attack. In total there were 267 servers (53 in Taiwan, 90 in Kunshan, and the rest in the US and European countries), and over 500 PCs and NBs in Taiwan were encrypted during the attack.

Impact on operations and follow-up response

- Advantech adhered to the ideal of instant and transparent information delivery. Under the principles of personal data protection regulations such as EU GDPR regulations, the following response measures were implemented: The President released a letter in English and Chinese to all employees, we prepared Chinese and English media release scripts, and we provided a Q&A for our clients. For clients whose information was leaked, we actively notified them of the scope of the problem, offered support on frequently asked questions, and provided a designated privacy communication channel.
- Critical IT services were resumed on Monday, November 23, 2020. The servers that were encrypted were restored from backups and without major data loss. By November 30, 90% of host services were resumed.
- Regarding the impacts on operation, approximately US\$ 6 million worth of shipping due in November was delayed until December.
- Multiple adjustments and upgrades were made to reinforce security for networks, servers, and endpoints, including server farms, VPNs, and end-point solution deployment. These measures have substantial blocking and predictive effects on subsequent multi-band continuous attacks.
- Because this incident affected the information security of global clients, we have been in contact with multiple local police and data-protection units, such as the Autoriteit Persoonsgegevens of the Netherlands. External information security teams together with Taiwan's Investigation Bureau of Ministry of Justice intervened and provided assistance and support.
- Other information security enhancements will be implemented in 2021 Q1.

Appendix : ISO 27001 Certification

Region	Certification scope	Certification	Certification date	Certified by
Taiwan	Linkou and Donghu Plants	ISO 27001	2019/07	SGS
China	Kunshan Plant	ISO 27001	2018/04	CQC

2.5 Appendix : Guilds and Associations

Working with guilds, associations, and governments to promote Industrial IoT

In 2010, Advantech's adopted the corporate vision "Enabling an Intelligent Planet." In addition to deepening its internal product applications and projects, the company has been cooperating with both public and private organizations since 2013, with a clear goal of promoting relevant topics such as smart cities, IoT, and Industry 4.0. Ultimately, we believe that this cooperation will accelerate the formation of Industrial IoT ecosystem, and this will assist industries in Taiwan and the world to shift to a new technological paradigm.

To expand the promotion of policies related to IoT and the development of industry, we have been proactively cultivating relations with key ambassadors and government personnel in Taiwan, as well as opinion leaders in various industries.

Highlight of Advantech's participation in guilds and associations



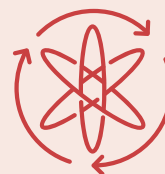
Each year, Advantech actively participates with **at least 13** local (Table 2.5.1) IoT application and associations.



Advantech invites **8–10 groups of people, a total of over 100 guests**, to visit the Advantech AIoT Co-Creation Campus every year so as to promote the application and development of IoT (Table 2.5.3).



Advantech invests **at least NT\$300,000** in membership fees this year to support and promote IoT relevant activities (Table 2.5.2).



Advantech allocates **at least NT\$30,000** every year to plans or activities related to climate or the environment. The company has been rated on the CDP B List for several consecutive years, which demonstrates our effectiveness in promoting carbon management strategies.

Performances and Results

Result 1

Advantech's Chairman participated in the Intelligent Mechanical Cloud Result Presentation and Developer Application Service Conference held by the Taiwan Association of Machinery Industry. Together with the association and the Industrial Technology Research Institute, Advantech signed the Letter of Intent for Cooperation in Mechanical Cloud and Ground-End Standardization.

Result 2

Advantech Indonesia Office participated in the Indonesia Central Java Investment and Business Forum on November 11–12, 2020, hosted by the Chinese International Economic Cooperation Association.

Result 3

Advantech cooperated with the Taiwan Cold Chain Association and participated in Taiwan International Agricultural Cold Chain Technology Expo 2020.

Result 4

Advantech submitted an article to the Journal of Automation Intelligence and Robotics of the Taiwan Automation Intelligence and Robotics Association, discussing the application of intelligent factories to realize lean manufacturing.

Result 5

Advantech actively participated in the Taiwan–Vietnam Cold Chain Seminar held by the Taiwan Cold Chain Association.



Table 2.5.1 Advantech's memberships with guild and association

Participating unit	Membership payment	Membership type	Strategic importance
Cloud Computing and IoT Association in Taiwan	✓	Type B member	Promote cloud application services to increase the value of Taiwan's information and communications industry.
Taipei Computer Association	✓	General member Acting director	Promote computer use, economic development, and coordinated industries
Taiwan Automation Intelligence and Robotics Association	✓	Grade 1 member Acting director	Signed a memorandum of cooperation in 2014. Currently providing for the association's practical courses.
Taiwan Electrical and Electronic Manufacturers' Association	✓	Grade 1 member	-
Chinese International Economic Cooperation Association	✓	-	Participate with the association in international economic cooperation to assist in expanding the application of Taiwan's IoT technology and build relations with countries worldwide.
Taiwan Association of Machinery Industry	✓	-	Assist with introducing intelligent machinery applications in machine tools in the machinery industry.
Taiwan Telematics Industry Association	✓	Type B member Acting director	Promote the development of Taiwan's telematics industry to improve its international competitiveness.
Taiwan Cold Chain Association	✓	Grade 1 member	Form a cold chain national team with partners from industry, government, and academia to help establish cold chains in Taiwan and promote solutions to markets in Southeast Asia and South Asia.
Taiwan Smart City Solutions Alliance	-	Founding member	Promote a real site demo in Taiwan, as well as smart city exhibitions, and key roles Taiwanese manufacturers have in smart city construction.
Asian Silicon Valley-Major League IoT	-	General member	Application and promotion of IoT technology to establish an innovative IoT industry.
Edgecross Consortium	-	Founding member	Actualize the connection and integration of factory automation and information technology to rapidly realize Industry 4.0.
e-F@ctory Alliance	-	General member	Promote factory automation and Industry 4.0 applications.
Embedded Linux and Android Alliance	-	Founding member	Promote open, standardized Linux and Android software and hardware architecture and establish a comprehensive ecosystem for software and hardware industries.

Table 2.5.2 Advantech's annual membership fees for guilds and associations

Guild/association name	Details of fee payment	NTD
Cloud Computing and IoT Association in Taiwan	2020 Type B membership annual membership fee	47,619
Taipei Computer Association	2020 annual membership fee	15,000
Taiwan Automation Intelligence and Robotics Association	2020 annual membership fee	40,000
Taiwan Electrical and Electronic Manufacturers' Association	2020 First period fee	21,000
Taiwan Electrical and Electronic Manufacturers' Association	2020 Second period fee	21,000
Cloud Computing and IoT Association in Taiwan	2021 Type B annual membership fee	47,619
Chinese International Economic Cooperation Association	Annual membership fee	20,000
Taiwan Association of Machinery Industry	Annual membership fee	26,400
Taiwan Telematics Industry Association	Annual membership fee	50,000
Taiwan Cold Chain Association	Annual membership fee	20,000
Total		308,638

Table 2.5.3 Representatives and opinion leaders who visited the Advantech IoT Park

Visit date	Visitor
07/18	Lai Ching-Te, Vice President of Taiwan
08/13	M. Jean-François Casabonne-Masonnave, French representative in Taiwan
10/13	Mr. Brent Christensen, US representative in Taiwan
10/27	Mr. Mitsuaki HOSHINO, Deputy Representative of Japan in Taiwan
11/04	Mr. Guido Tielman, Dutch representative in Taiwan
11/12	Cheng Wen-Tsan, Taoyuan City Mayor
11/24	Thirty-seven representatives from various countries, led by the Taiwan External Trade Development Council (see the following list)



No.	Embassy/ Office	Name	Title
1	Hong Kong Trade Development Council Taipei Office	Stella Poon	General Manager
2	Malaysian Friendship and Trade Centre, Taipei (Trade Division)	Saudah Mat Isa	Director of Trade
3	Embassy of the Republic of the Marshall Islands	Anjanette C. Anjel	Deputy Chief of Mission
4	Embassy of the Republic of the Marshall Islands	Dorianne T. Kabua	First Secretary
5	Manila Economic and Cultural Office	Michael Alfred V. Ignacio	Trade Representative/ Director of Commercial Affairs
6	Manila Economic and Cultural Office	Angelito T. Banayo	Chairman and Resident Representative
7	Vietnam Economic and Cultural Office in Taipei	Nguyen Anh Dung	Representative
8	India-Taipei Association	Gourangalal Das	Director General
9	Embassy of the Republic of Nauru	H.E. Jarden Kephass	H.E. Ambassador
10	Embassy of Tuvalu	H.E. Limasene Teatu	H.E. Ambassador
11	Embassy of Tuvalu	Siaeki Teatu	First Secretary
12	Papua New Guinea Trade Office in Taiwan	Tommy Kambu Kunji	Representative
13	Commercial Office of the Sultanate of Oman-Taiwan	Sulaiman Sultan Salim Al Mughairy	Director
14	Liaison Office of South Africa	Sibongile Mabasa	Deputy Representative
15	Somaliland Representative Office in Taiwan	Mohamed Omar H. Mohamoud	Representative
16	Somaliland Representative Office in Taiwan	Aileen Tai	Executive Secretary
17	Somaliland Representative Office in Taiwan	Hassan Mohamed Hussein	Head of Commercial and Economic Section
18	Polish Investment & Trade Agency	Michalina Jendrzeczyk	Head of Trade Office
19	The Trade Council of Denmark, Taipei	Bo Mønsted	Director
20	Finpro Taiwan, Finland's Trade and innovation Office	Mikko Antero Karppinen	Representative
21	German Trade Office Taipei	Wanda Chang	Senior Manager
22	German Institute Taipei	Dr. Thomas Prinz	Director General
23	Confederation of Asia-Pacific Chambers of Commerce and Industry (CACCI)	Amador Honrado	Deputy Director-General
24	Hungarian Trade Office	Ferenc Fási	Director of the Investment & Trade
25	Luxembourg Trade and Investment Office, Taipei	Sophie Liao	Senior Advisor
26	British Office	Fandy Chen	Senior Commercial Officer
27	Canadian Trade Office in Taipei	Duane Robson	Director- Trade and Investment
28	Embassy of Belize	H.E. Diane C. Haylock	H.E. Ambassador
29	Embassy of The Republic of Guatemala	H.E. Willy Alberto Gómez Tirado	H.E. Ambassador
30	Embassy of The Republic of Honduras	H.E. Eny Yamileth Bautista Guevara	H.E. Ambassador
31	Embassy of The Republic of Honduras	Juan Carlos Barahona	Counsellor
32	Embassy of The Republic of Paraguay	Macarena Barboza	Commercial Attaché
33	Chilean Trade Office	Agustín Alejandro Cases Nardocci	Director
34	Embassy of Saint Vincent and the Grenadines	Shebby Ann Dennie	Counsellor
35	Embassy of Saint Lucia	H.E. Edwin Laurent	H.E. Ambassador
36	The Jordanian Commercial Office	Nabeel Al-Tel	Director
37	Brunei Darussalam Trade and tourism Office	Ainatol Zahayu Mohammad	Representative