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Company Management and Governance

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2.1 Operational Performance and Corporate Governance Structure

2.1.1 Company Profile

Since Advantech's establishment in 1983, we have played the role of innovator in the development and manufacture of high-quality and high-performance computing platforms. We provide comprehensive software and hardware system integration, customer-oriented design services, global logistics support, and other applications and services.

Advantech was listed in Taiwan in 1999 and our operating headquarters is located in the Neihu Technology Park in Taipei, Taiwan. Our business base spans 28 countries in Europe, the Americas, Asia, and other regions.* Our three major manufacturing centers are located in Linkou (Taiwan), Kunshan (China), and Fukuoka (Japan). Furthermore, we have built four logistics management centers and 14 local service centers to provide global customers with real-time and comprehensive integrated services via a complete service system.

*Note: For details of operating locations, please refer to Advantech's official website <https://www.advantech.com/contact>
(Please select region/country from the top left menu.)

Advantech stands as a global leader in the IoT intelligent system and embedded platform industries, and holds "Enabling an Intelligent Planet" as its corporate brand vision. In accordance with our customers' needs, our Company is divided into four major business groups: the Industrial IoT Group, the Embedded IoT Group, the Service IoT Group, and the Cloud IoT Group. To meet the broad trends of the Internet of Things, Big Data, and artificial intelligence, Advantech advances IoT software and hardware solutions centered on the WISE-PaaS industrial IoT cloud platform to help partners and customers connect the industry value chain. In addition, we actively "co-create" an industrial ecosystem with various industrial partners in order to accelerate the realization of the goal of industrial intelligence. Please refer to this [video](#) to learn more about Advantech's vision of "Enabling an Intelligent Planet".

The industries that Advantech and its affiliated companies work on are mainly in the manufacture, assembly, sales and after-sales service of industrial computer-related products. Some affiliated companies invest in related technologies and business activities connected to the aforementioned products to form their business scopes. The organization chart of the Company is shown in Figure 2.1.2.

Figure 2.1.1 Distribution of Advantech's Operating Locations

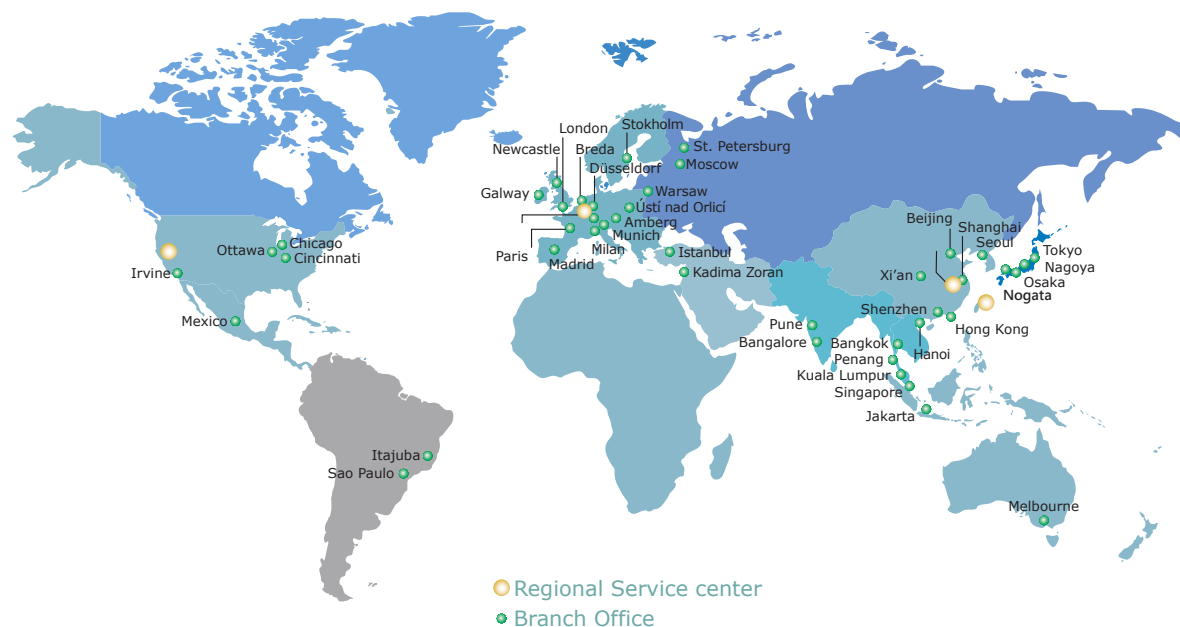
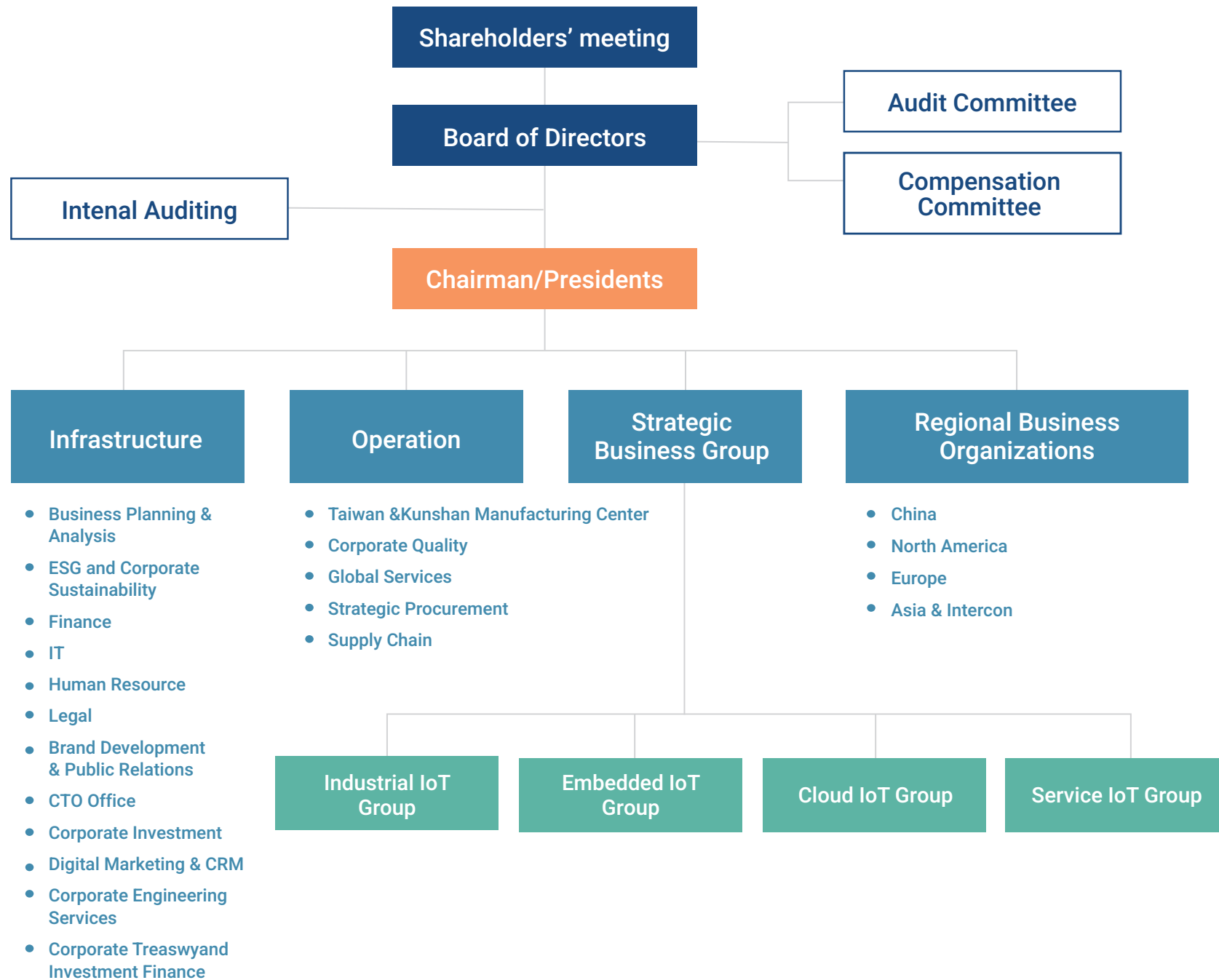


Figure 2.1.2 Organization Chart of Advantech



Economic Performance and Brand Value

Despite the challenges of the pandemic and the supply chain in 2021, Advantech continued to create excellent operating results. Full-year revenue officially exceeded the US\$2 billion mark, and record highs were set for December, for the fourth quarter and for the full year. In terms of profit performance, the Company's gross margin, operating margin, and return on shareholders' equity have grown steadily over the years.

Table 2.1.1 summarizes the Company's products and revenue distribution in 2021. For details, please refer to page 63 of our Annual Report. Production value can be found on page 83.

Table 2.1.1 Advantech's Products and Revenue Distributions in 2021

Major Products	2021	
	Sales unit (NT\$ thousand)	%
Embedded boards and chassis	25,410,695	43
Industrial computers and industrial controls	26,238,637	45
After-sales service and others	6,972,718	12
Total	58,622,050	100

For detailed economic performances including net revenue, operating profit and operating margin, shareholders' equity and return on shareholders' equity, and total assets and return on assets, please refer to Advantech's official website: [Performance Overview](#).

Since our establishment, Advantech has continually focused on the management of our own brand and our brand value has been ranked among the top five international brands* in Taiwan for four consecutive years. In 2021, we achieved fifth place as our brand value increased by 1% annually to US\$ 632 million.

*Note:

Best Taiwan Global Brands constitutes an evaluation conducted by Interbrand, an internationally renowned brand evaluation agency commissioned by the Industrial Development Bureau of the Ministry of Economic Affairs. Please refer to the website for more information.



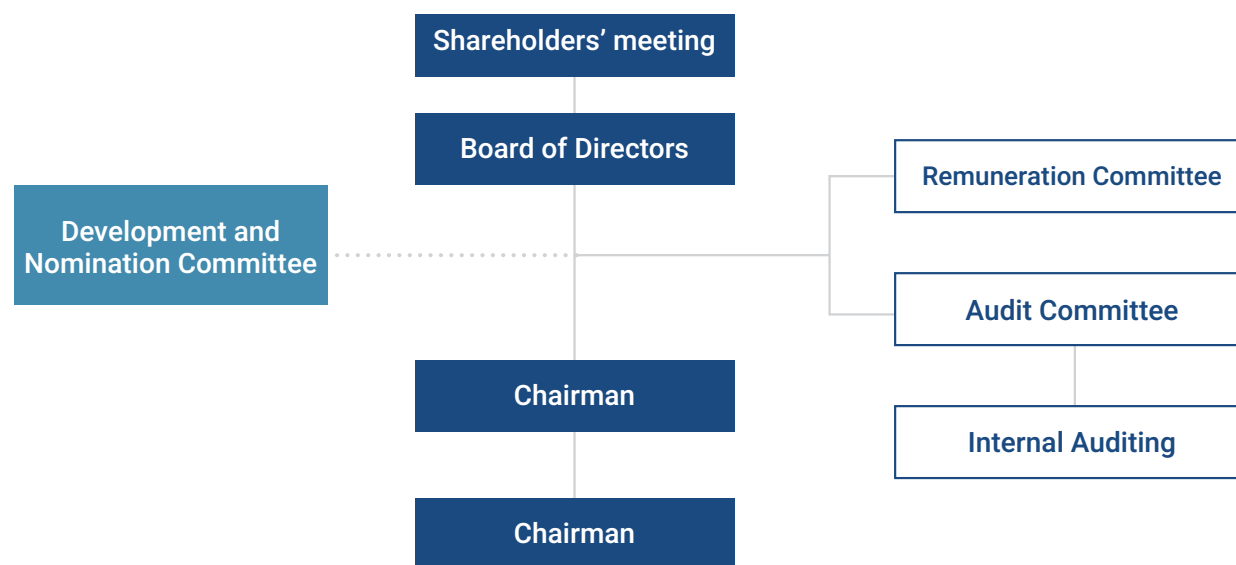
2.1.2 Corporate Governance

Advantech attaches great importance to corporate governance and a spirit of altruism, and we continuously strengthen the composition and functions of our Board of Directors. In addition to protecting the legitimate rights and interests of shareholders, we also take the interests of other stakeholders into account. Advantech's Board of Directors not only formulates regulations and measures in accordance with relevant laws and regulations and the powers entrusted by the shareholders' meeting, but also supervises the implementation results of each business plan and objective. In addition, Advantech holds an expanded Board of Directors meeting every six months to discuss important issues such as industrial and organizational reform, business model innovation, business heritage, and medium and long-term vision.

Regarding functional committees, the Company has set up an Audit Committee, a Remuneration Committee, and so on to implement each supervisory and internal audit functions as well as compensation incentives and training of high-level talent. Established in 2020, the ESG Corporate Sustainability Committee and ESG office are headed by the Chairman to promote Advantech's environmental sustainability, social responsibility, and feedback across a wider range, as well as our substantial progress in all aspects of corporate governance.

Advantech upholds our commitment to sustainability and we plan to formally establish a Board-level Sustainability Committee in 2022. In the future, it will promote major issues such as ESG long-term strategy, succession plans, and nomination of the Board of Directors and senior managers to make corporate governance more sound and complete.

Figure 2.1.3 Advantech's Corporate Governance Structure



For legal compliance and anti-corruption related information, please refer to Advantech's official website: [Major Internal Policies](#)

1. [Advantech Code of Ethics and Business Conduct](#)
2. [Guideline for Insider Trading Prevention Management](#)



For information about our internal audit system, please refer to Advantech's official website: [Internal Audit](#)



Composition and Operation of the Board of Directors

The Board of Directors of the Company consists of seven directors, including four directors and three independent directors. The term of office is three years, adopting a candidate nomination system as stipulated in Article 192-1 of the Company Act, with election by the shareholders' meeting from the slate of director candidates. Re-election was carried out by the 2020 shareholders' meeting.

The team on the Company's Board of Directors combines elites from industry and academia, with diversity and professionalism fully considered. One of the independent directors of the Board of Directors is a well-known professor in the academic world and a professional in accounting and finance. The remaining six have extensive experience in Advantech's core industries. Three of them were presidents or senior managers of world-renowned foreign companies, having extensive practical experience in international business management. The composition of the functional committees also invites experts from various fields to serve as consultants or regular members to enhance professionalism and diversity. The Board of Directors functioned well in 2021, and a total of five Board meetings and two expanded board meetings were held. All Board members had 100% attendance.

Advantech continues to enhance the functions of the Board of Directors. In addition to fully participating in the formal meetings mentioned above, members of the Board of Directors are also frequently invited to participate in discussions on forward-looking issues, interviews with senior managers, and industry forums organized by the Company. The Company also encourages directors to continue in their educations, providing monthly information on governance courses for directors to refer to as electives, organized by professional organizations such as the Taiwan Corporate Governance Association, the Securities & Futures Institute, Taiwan Institute of Directors, and so on. At the same time, the Company has evaluation mechanisms for the Board of Directors and for functional committees and conducts self-evaluations every year. In 2021, overall satisfaction of Board members with Board operations reached 95%. A third-party professional organization conducts an overall board performance evaluation every three years; and in 2020, the Taiwan Corporate Governance Association was entrusted to conduct this evaluation. In addition, Advantech ranked in the top 6%-20% of corporate governance evaluations in 2021, and we regularly review indicators to be improved. The management team strives to improve every year by coordinating resources and promoting this together across departments.



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



Tax Policy

Advantech adheres to a spirit of altruism and expects and commits to giving back to society while the Company's operations are prosperous. Therefore, in terms of tax policy, it is our responsibility to pay reasonable taxes and give back to the local social and economic environment of the countries where we operate. We do not engage in aggressive tax arrangements, and we comply with all relevant tax laws and regulations.



For tax policy related information, please refer to Advantech's official website: [Major Internal Policies–Tax Policy](#).

Table 2.1.2 2021 Revenue, Net Profit before Tax, Tax Payment and Income Tax Payable (Unit: NT\$ thousand)

Region	Revenue	Net profit before tax	Income tax paid	GST/VAT/Other business tax paid	Total tax paid	Current income tax accrued
United States	15,981,791	864,101	180,406	188,914	369,320	8,892
Europe	9,949,283	120,891	44,305	236,895	281,200	43,945
Taiwan HQ	43,500,231	10,056,787	1,586,710	385,094	1,971,804	1,501,671
China	30,948,961	1,054,485	-37,312	648,431	611,119	90,940
Japan	3,084,953	88,748	2,165	16,861	19,027	41,415
South Korea	2,306,810	186,464	17,060	61,794	78,854	39,637
Others	2,343,890	144,002	12,351	156,278	168,629	32,199
Global	108,115,918	12,515,477	1,805,684	1,694,267	3,499,951	1,758,699

*Note:

1. Tax information in this table comes from the aggregate of local financial figures, and transactions with related parties within the Group are not excluded; it therefore differs from the consolidated financial figures.
2. Out of net profit after tax for Taiwan in the above table, 18% came from investment interests recognized under the equity method.

2.2 Information Security Management

Management Guidelines for Major Topics

Materiality	With the increasing threats of cyberattacks, information security has become one of the major risks in global business operations. ESG rating agencies including the Dow Jones Sustainability Indies (DJSI) have included information security management in their evaluation items. Clearly, this has become a topic requiring greater attention on the part of corporate senior executives. Advantech is a global IoT leader. Information security issues involves a company's operational stability, product security, privacy and other aspects. Regarding Advantech's brand value, it is extremely important to stakeholders such as employees, customers, and investors.
Policies/ Commitments	Information security forms an integral part of business operations and risk management. The implementation of information security requires management's awareness and adequate support. Advantech has formulated information security policies and related management specifications. Furthermore, we have established a cross-departmental information security governance team, which is to promoted by the quality control and information security teams, and should coordinate information security issues including computer information, physical environment, product information security, supply chain, regulatory compliance, and so on; and it should regularly report the implementation status to the Risk Management Committee and integrate information security into the organization's operational management.
Management Objectives	<ol style="list-style-type: none"> 1.Maintain the continuous and effective operation of the Company's operations-related information systems, network equipment, connection services, and so on, and ensure the safety of all information assets. 2.Improve the security of the Company's products, and deal with and improve possible weaknesses in a timely manner. 3.Improve preventive measures for each item of information security risk, and establish a response and handling mechanism for information security incidents to reduce their impact.
Management Policy/Action Plan	<p>1.Comprehensive Assessment of Information Security Risks Regularly handle system vulnerability scanning, website security detection, penetration testing, firewall rule inspection and other operations; continuously assess the information risks that may arise from internal and external threats.</p> <p>2.Improve Information Security Management Capabilities Allocate information security personnel and establish a cross-departmental information security governance group. For the organization chart, please refer to Advantech's official website: Risk Management.</p> <p>3.Raise Employee Security Awareness Continue to organize information security education courses and social engineering drills for colleagues, raise information security awareness among colleagues, and reduce human-made security risks.</p> <p>4.Strengthen Data Security Strengthen the backup of R&D data. Important systems are backed up with 8/12/24 3-Tier Snapshot and important database fields are encrypted.</p>

Management Policy/Action Plan	5.Enhance Network and Endpoint Protection Projects have been implemented such as strengthening OT network border control, deploying EDR endpoint protection tools, introducing privileged account management, and multi-factor authentication mechanisms.				
	6.Improve Resilience of Information Services Establish a High Availability (HA) mechanism for key information systems, and plan to establish an off-site backup center.				
	7.Introduce Information Security Management Systems The internal information operation is imported into the ISO/IEC 27001 international information security management system, and the maturity of information security management is continuously improved through PDCA (Plan-Do-Check-Act).				
	8.Introduce Product Safety Development System Implement and verify the IEC 62443-4-1 standard (Secure Product Development Lifecycle Requirements) to respond to supply chain requirements for product information security.				
Effectiveness Assessment	Advantech has been introducing the ISO/IEC 27001 international information security management standard for three years. Looking at external audit data in the past three years, the missing/observed items show a decreasing trend each year. This indicates that the PDCA of ISO27001 has been continuously implemented and the Company's overall information security structure has become increasingly stable.				
			Deficiency	Observed instances	Subtotal
		2019	6	21	27
		2020	4	12	16
		2021	1	8	9

Project Highlights

In order to strengthen computer endpoint protection of the Company, Microsoft's Endpoint Detection and Response (EDR) solution has been introduced since 2020 Q4. This solution has been deployed in Advantech's computer equipment around the world for a total of over 8,000 units. Using EDR monitoring and alarm mechanisms, we provide stronger information security risk early warning capabilities and visibility. Advantech uses Microsoft information security solutions to improve our overall protection, and has won the attention of Microsoft Corporation. In 2021, we garnered the attention of Microsoft's headquarters as we were interviewed for a [customer success story](#) feature.

Improvement Plans

In 2021, there were two information security incidents affecting the Company:

- In May 2021, following an interruption in Taipower's power supply, the mainframe and network equipment in the computer room stopped service after the UPS power was exhausted due to the failure of the generator to start smoothly in the headquarters building.

Improvements: Regularly test the operation of the generator, and develop an external co-location method for important mainframes.
- In July 2021, due to an attacked by SQL injection, some website systems could not function properly.

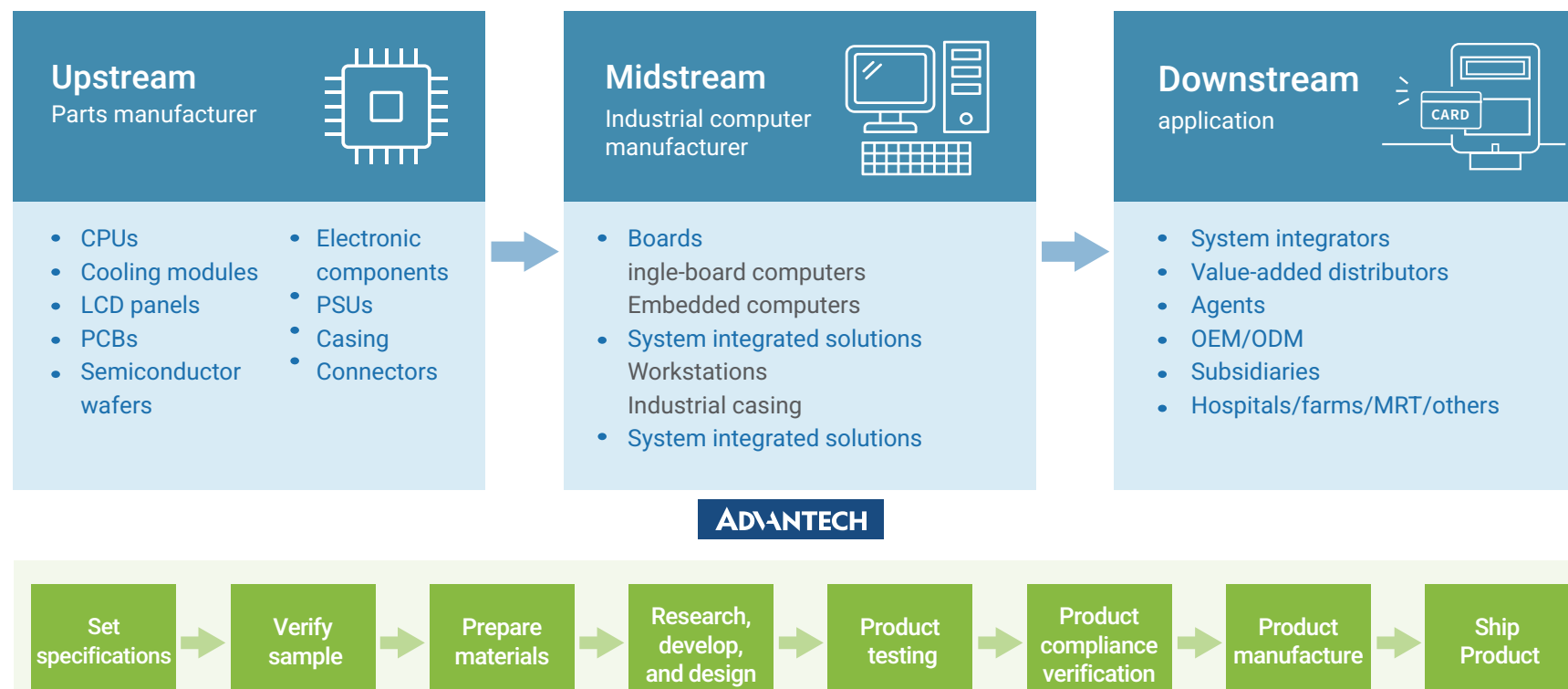
Fixes and improvements: Check whether each system contains SQL injection vulnerabilities and repair them; regularly conduct system vulnerability scans and evaluate to implement source code review tools.

2.3 Supply Chain Sustainability Management



Advantech's business philosophy is to create a win-win situation with suppliers and customers by establishing a sustainable IoT supply chain ecosystem and always ensuring ethical and environmentally compliant supply chain and production principles. The Company belongs to the industrial Internet of Things industry service category, mainly involving the process of purchasing components from upstream component manufacturers, assembling and manufacturing them in the Company, and then delivering them to customers. Due to the characteristics of the industry, the company purchases a wide variety of items that are highly customized. At present, supply materials in the supplier database number in the tens of thousands or more. We regularly conduct supplier assessments through our procurement and quality assurance units to ensure the stability of the supply chain and supply quality while at the same time understanding suppliers' process capabilities. In addition to regularly evaluating suppliers for their product quality, on-time delivery rates, cooperation, industrial safety management, business conditions, ESG management, and so on, we also engage in instant communications with them as we strive to impart the concepts of Corporate Social Responsibility and Supply Chain Sustainability Management into supply chain assessment standards. In this way, we cooperate with suppliers to create high-quality products and services and create sustainable value.

Figure 2.3.1 Advantech's Industrial Value Chain



Management Guidelines for Major Topics

Materiality	We have established the stable development of friendly relations with supply chain partners under our business philosophy of sustainable corporate development. In addition to taking quality into account, we also hope that by building a sustainable supply chain we will fulfill our corporate social responsibilities together with our partners while working together for environmental protection.
Management Policy/Action Plan	<ul style="list-style-type: none"> Suppliers should follow the Advantech's Supplier Code of Conduct, making them aware of the standards the Company is expected to follow. The Company sets short and medium-term key goals and formulates specific practices to effectively promote and implement. Regularly identify high-risk suppliers, require audits and deadlines for improvement, and reduce to medium and low risks.
Effectiveness Assessments	In accordance with management policy objectives, every year we evaluate whether achievement of key performance indicators (KPIs) has improved in comparison with the previous year as a means of improving management.

Table 2.3.1 Short- and Medium-Term Goals of Supply Chain Sustainability Management

Item	2021 Results 100% achievement of goals set for 2020	2022 goals	2025 goals
Preferred Vendor List(PVL)	<ul style="list-style-type: none"> 100% compliant with Advantech Supplier Code of Conduct 100% do not use conflict minerals Zero environmental pollution, human rights violations, and major occupational incidents 	<ul style="list-style-type: none"> Delivery of ESG courses to Preferred Vendor List Complete carbon data collection for 10% of Preferred Vendor List 	100% completed ESG risk assessment
Sustainability High-Risk Suppliers*	100% obtained ISO 14001 environmental certification	<ul style="list-style-type: none"> On-the-spot assessment and coaching of suppliers with sustainability high-risk to improve their shortcomings Eliminate suppliers with sustainability high-risk that cannot be mentored 	Deficiency improvement rate of more than 70%

*Note:

A sustainability high-risk supplier is defined as a supplier with higher sustainability risk as identified through the Advantech ESG Risk Assessment Audit Form; see Supplier Management Strategy for details.

Project Highlights/Performance

100%

All Preferred Vendor List (PVL) members completed signing of the Supplier Code of Conduct Acceptance Form

100%

New suppliers are 100% compliant with environmental guidelines

100%

100% of Preferred Vendor List signed the Declaration of Non-Use of Conflict Minerals

74%

The proportion of local procurement reached 74%

100%

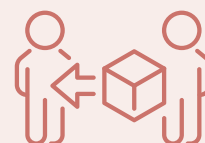
Among suppliers planning to perform supplier audits in 2021, the proportion of final implementation of written audits reached 100%

2.3.1 Supplier Management

Supplier Composition

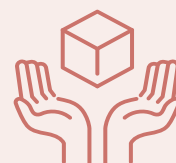
Products and services provided by Advantech cover the fields of Internet of Things, automation, and embedded computing. As a result, we work with about 1,000 suppliers around the world. Advantech's main suppliers are divided into raw material and packaging material suppliers, as well as contractors for maintenance, cleaning, engineering, and so on. Among them, raw material suppliers have a clear impact on operations and production. Therefore, we further divide raw material suppliers into two categories according to their attributes, encompassing suppliers of direct materials (materials directly related to production) and packaging materials (materials or packaging materials not directly related to production).

In order to effectively manage raw material suppliers and resource allocation, we screen suppliers with high annual purchase amounts, key raw materials, and irreplaceable suppliers to make up the Preferred Vendor List, identifying key raw material manufacturers through integrated management.



Tier 1 suppliers

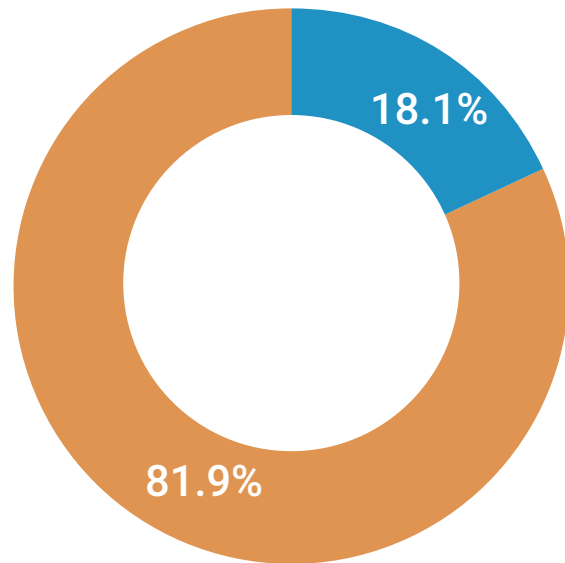
Suppliers who provide Advantech with direct or indirect materials



Key suppliers

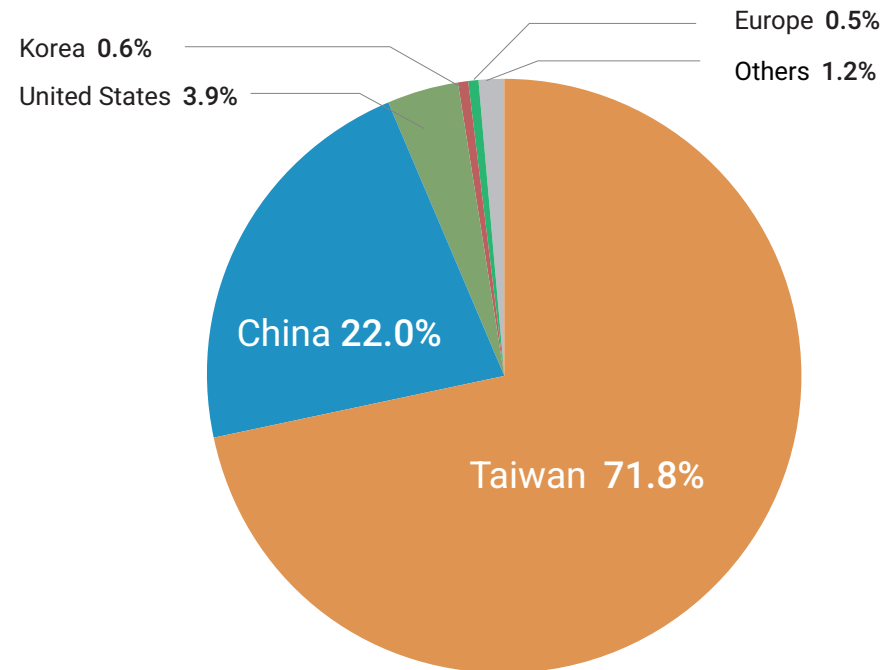
High-volume suppliers and those who provide critical raw materials that cannot be replaced. These are our PVL(Preferred vendor list) suppliers.

2021 distribution of tier 1 suppliers



Tier 1 Key suppliers Non-key suppliers

2021 distribution of raw material suppliers

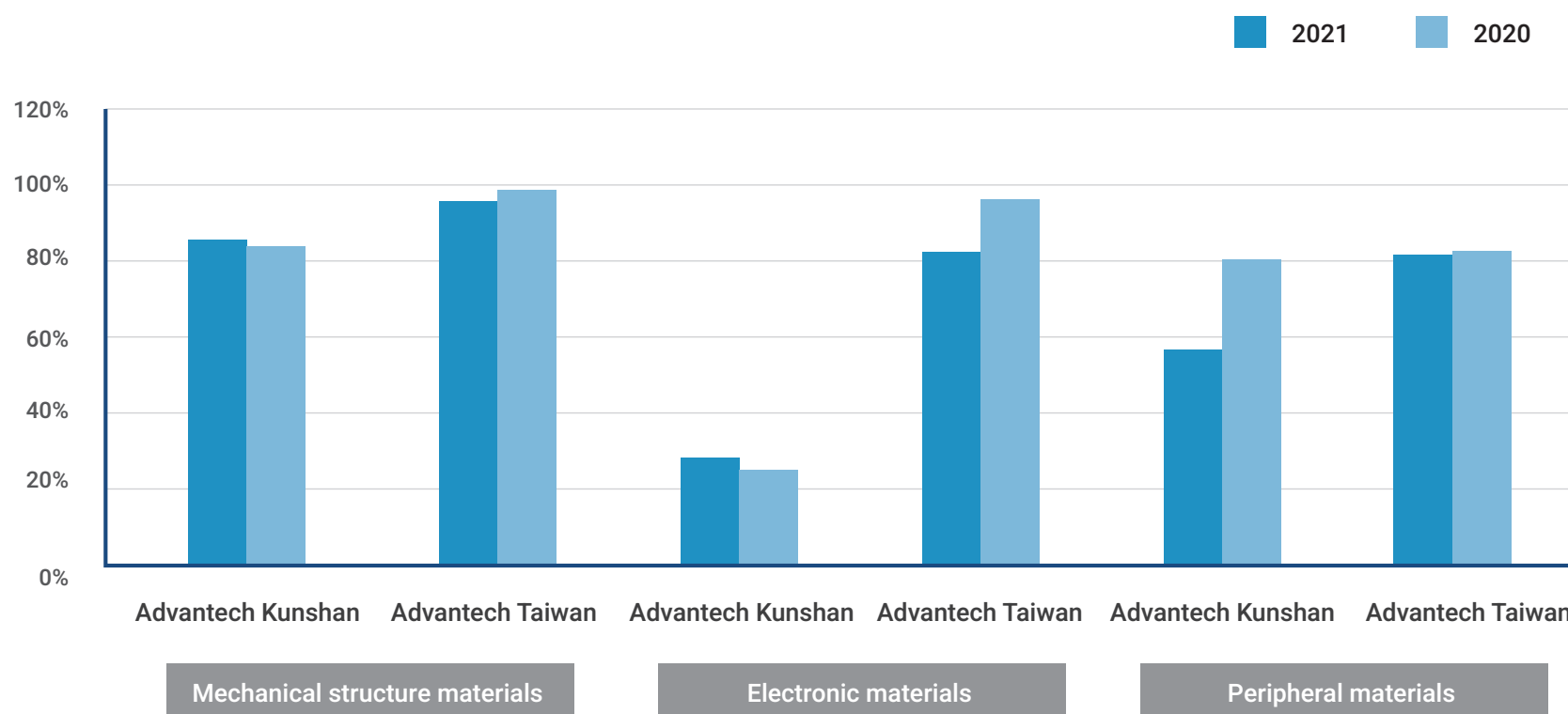


Taiwan China United States Korea Europe Others

Support for Local Suppliers

Advantech continues to use localized procurement strategies in order to establish close relationships with local partners and create local employment opportunities while also reducing carbon dioxide emissions to the environment during manufacturing and transportation. Over the years, our procurement has always been based on local suppliers and products comply with RoHS/HSF specifications. Overall, Advantech Taiwan's local procurement ratio was about 84% in 2021. Local procurement at Advantech Kunshan Manufacturing Center reflected the fact that some electronic and peripheral raw materials were purchased by Advantech Taiwan. The local procurement ratio only accounted for about 53% of the total amount*, and the overall local procurement ratio was 74%. Figure 2.3.2 shows the proportions of the Company's local purchase amounts in recent years.

Figure 2.3.2: Proportions of Local Procurement for Advantech Taiwan and AKMC in 2020-2021



*Note:

1. Local procurement definitions: Advantech Taiwan – transaction counterparty is a manufacturer having a uniform invoice number for a for-profit enterprise in Taiwan; AKMC – transaction counterparty is a Mainland China domestic manufacturer.
2. The decrease in the proportion of local procurement of electronic materials in Kunshan is mainly due to the switch to a self-purchasing strategy in 2020. However, most of the self-purchasing suppliers are agents registered in Taiwan.

Supplier Management Strategy

Advantech starts from the new supplier recognition stage; that is, we require suppliers to sign a purchase contract to ensure their delivery, quality, and warranty specifications. Among these, delivery delays caused by natural and man-made disasters are of greater concern and suppliers are required to make immediate notifications. The Company's procurement strategy adopts an approach of sourcing supplies from over two suppliers, in order that they can be replaced and compete with one another so as to diversify procurement risks and reduce costs. For electronic parts with high commonality, Advantech has established a second source management mechanism. Safety stocks are also established for primary materials to avoid risks caused by material shortages or quality problems.

Advantech differentiates by material grades in assigning dedicated procurement colleagues to analyze market information and regularly review market dynamics through weekly and monthly meetings. Furthermore, we adopt a centralized procurement strategy, establish a Preferred Vendor List, improve cooperation efficiency through convergence and concentration, and then obtain high-quality materials and stable delivery.

In addition to paying attention to suppliers in terms of cost, quality, delivery, continuous supply, and so on, we have formulated the Advantech Supplier Code of Conduct and require that suppliers comply with it. We require suppliers to sign a Supplier Code of Conduct Acceptance Form. In addition to requiring full compliance with the laws and regulations of the countries in which we operate, we also put forward regulations on business conduct in terms of labor rights, health and safety, environment, corporate ethics, management systems, and other aspects. At the same time, suppliers are also required to communicate these requirements to their next-tier suppliers and monitor the compliance of these next-tier suppliers.



In addition, in 2021, we stipulated that materials suppliers should complete an ESG sustainability risk assessment survey that covered legal compliance, sustainability management, supplier management, conflict mineral management, environmental protection, health and safety, labor rights, human rights, and so on. In order to grasp the sustainability risks of suppliers, on-site audits will be conducted when necessary to ensure that the sustainability of suppliers meets our standards. At the same time, Advantech expects suppliers to continuously improve their sustainable performances. Therefore, we require and encourage existing suppliers and new suppliers to obtain relevant international certification standards such as ISO 9001, ISO 14001, ISO 45001, ISO 14064-1, QC 080000, IATF 16949, and ISO13485.



Supplier Environmental Management

In addition to the strict incorporation of environmental protection principles into the supplier management mechanism, since 2010 we have introduced the management system of the Responsible Business Alliance (RBA) (previously known as the Electronic Industry Citizenship Coalition, EICC). This expands our call for suppliers to pay attention to and promote corporate social responsibility (such as conflict minerals regulations). Currently, the Company's management of all supplier selection indicators includes important indicators such as RoHS (HSF) QC080000, ISO14001, ISO 45001 and even the localization of suppliers within RBA as well as other important corporate social responsibility indicators. Advantech requires suppliers to safeguard basic human rights and abide by labor standards. The aforementioned indicators are also included among new supplier audit items in our Supplier Audit Form.

In addition, in order to ensure that suppliers can adhere to the principle of equality of the Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy of the International Labor Organization, the relevant management of suppliers and contractors (including security companies) has been carried out through the purchasing unit and the general affairs unit. The overall management overview is shown in Table 2.3.2. In the future, the Company will gradually increase the proportion of suppliers that meet the relevant requirements of Corporate Social Responsibility.

Table 2.3.2 Overview of Supplier and Contractor Management

Type	Management Principles	Implementation Ratio	Future Management Priorities
All members of Preferred Vendor List (PVL) Out of a total of 271, 271 companies have	Conduct supplier profile review by signing the Supplier Code of Conduct Acceptance Form	100%	Include CSR clauses in contract
New Suppliers of 2021 Out of a total of 211, 37 have undergone audits	through the Supplier Audit Form evaluation (16 items of EHS environmental safety and health management, 16 items of labor and ethics, 13 items of HSF management of hazardous chemical substances)	17.2%	Maintain on-site assessment ratio
	Evaluate new suppliers using environmental criteria. (Environmental assessment includes environmental safety and health policy, high-level support and commitment, employees' true achievements, compliance with environmental protection laws and regulations, external communication, and so on.)	100%	Maintain on-site assessment ratio
	Evaluate new suppliers using social criteria. (Social assessment includes employees' free choice of occupation, whether child labor is used, paying wages according to regulations, prohibiting discrimination, and so on.)	100%	Maintain on-site assessment ratio
Audits of existing suppliers in 2021 The total number of planned implementations	through the Supplier Audit Form evaluation (16 items of EHS environmental safety and health management, 16 items of labor and ethics, 13 items of HSF management of hazardous chemical substances)	100%	Increase the proportion of on-site evaluations
Maintenance, Cleaning and Engineering Contractors	Sign the Contractor Environmental Safety and Health and Supplier Code of Conduct Acceptance Form	100% (Does not include data for the Kunshan factory)	Include human rights clauses in contract

*Note: The COVID-19 pandemic made it impossible to go into the field for audits, so all here is based on written audits.

Substance Management Related to Product Environment

Advantech's main factories have introduced the IECQ QC 080000 system and implemented the Green Product Management (GPM) system to implement incoming material management according to material risk levels. Regarding the selection of suppliers of raw materials and packaging materials, both Advantech Taiwan and the Kunshan factory have established Hazardous Substance Free Management Workflows for them to follow. All raw materials must comply with international environmental protection directives/regulations such as RoHS and the EU's new chemicals policy (REACH), as well as those for substances of very high concern (SVHC) and for persistent organic pollutants (POPs).

Since 2010, the Company has established a Green Supply Chain management system that uses our green product information management system as a supply chain environmental information sharing platform. Advantech simultaneously sends the latest international environmental protection requirements to its supplier partners as a reference for regulatory compliance and construction of material supply system management. On this supply chain platform, suppliers must promise and guarantee that their products do not contain hazardous substances listed by the Company, and they must provide the following information:



Collection of toxicity and prohibition information for related chemicals (MSDS/MCD)



Present audit results of green product management systems among suppliers



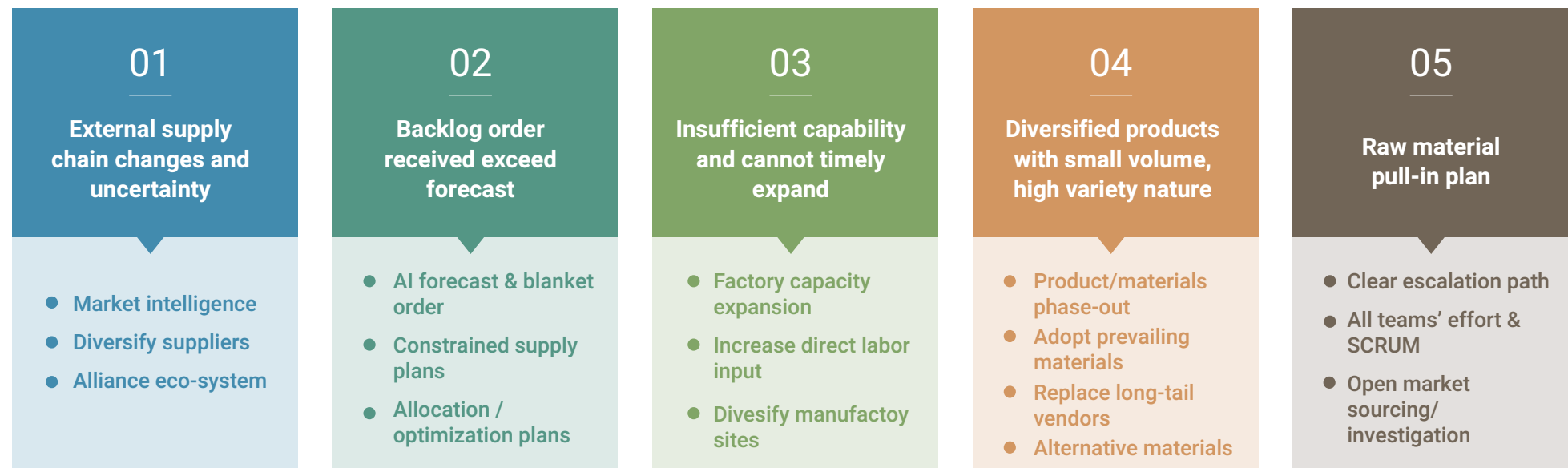
2.3.2 Sustainable Supply Chain Management

Advantech expects to deepen the relationship with global customers and partners through a consistent global brand, and we are committed to creating sustainable corporate value. In addition to our own compliance with the RBA Code of Conduct to assess the labor, environmental, and ethical management of our operations, at the same time we also actively require sustainable management of the supply chain and promotion of the sustainable development of the supply chain. For example, suppliers are not allowed to use forced labor or child labor. If circumstances are serious, the relationship will be terminated. In 2021, no supplier terminated a partnership due to forced labor or child labor.

Supply Chain Risk Strategies and Countermeasures

Supply chain disruptions (including those for raw materials and machinery equipment) would affect the Company's operations and our commitments to customers. Therefore, in terms of sustainable risk control, we require our suppliers to take the Advantech Supplier Code of Conduct as the basis for action for the sake of improving labor rights, safety and hygiene, environmental protection, business ethics, and management system performance, while continuously reducing the risk of operational interruptions. Furthermore, we have formulated risk response plans to ensure that there are optimal response measures in place when risks do occur. Please refer to Figure 2.3.3 for details.

Figure 2.3.3: Advantech's Supply Chain Risk Response Plan



Supplier Sustainability Management Process

In order to implement Advantech's procurement and supply chain policy, we have established a four-stage supply chain sustainable management process. Through continuous rolling improvement and cycling every year, we ensure that our suppliers meet our standards and thereby improve the sustainable performance of our suppliers.

Separately, we initiated a supplier ESG risk evaluation in 2021 to supplement our original supplier evaluation so that we might understand the sustainable development status of the supply chain and grasp its sustainability risks. Through a survey of ESG questionnaires, we can identify potentially high-risk suppliers in terms of the economy, the environment, and society, while ensuring that their risks can be effectively controlled and reduced. At present, the distribution of surveys for all of the Preferred Vendor List has been completed and about 46 suppliers have been preliminarily identified as being sustainability high-risk. In the future, we will start to conduct high-sustainability risk supplier coaching operations in order to grasp the sustainability risk of suppliers. On-site audits will be conducted when necessary to ensure that the sustainability of suppliers meets our standards.



Sustainable Risk Evaluations

Advantech conducts sustainable risk evaluations from three aspects: economic, environmental, and social. Evaluation risk factors include:



Supplier Evaluation

In terms of supplier management, Advantech conducts annual on-site inspections of high-risk suppliers in accordance with our procurement procedures. We confirm the manufacturer's process, quality, environmental safety, labor conditions, and CSR controls according to the checklist, and conduct quarterly supplier evaluations through the supplier management platform. We compile comprehensive scores for quality, delivery times, and business conditions, and take corresponding measures in line with the evaluation results. If the score is lower than 70 points, the purchasing unit will begin seeking new supply sources and immediately halt purchases after these findings until improvement is confirmed. For high-risk component manufacturers, we conduct key audits of safety compliance. For at-risk manufacturers with sustainability problems in the previous year, supervision or counseling on quality problems will be carried out.




Advantech supplier assessment item category



Advantech products are more diversified, and there are 984 suppliers of materials. In 2021, Advantech screened 77 existing suppliers based on transaction volume and quality risk (53 in Taiwan and 24 in mainland China) in conducting on-site supplier inspections. In response to any deficiencies uncovered, we counsel suppliers to improve their quality and request improvement and submission of supporting materials within a specified time limit. Further analysis shows that most of the missing categories lie in quality and process control, and there is no major deficiency in social responsibility performance after on-site inspection. For example, there are no serious incidents of forced or compulsory labor, no recruitment of child labor, and any PCB factory belonging to the high-risk category is subject to waste liquid treatment in accordance with the regulations.

For the selection method of new suppliers, except for those whose manufacturer's products have been widely used by the industry in the market and whose quality systems must be verified by international standards, they can be approved by the evaluation team for inclusion among qualified manufacturers via supporting documentation. The remainder are subject to on-site inspections focusing on areas such as quality, environmental safety and hygiene, and corporate social responsibility. According to our statistics, a total of 215 new suppliers were to be implemented in 2021 with 211 approved.

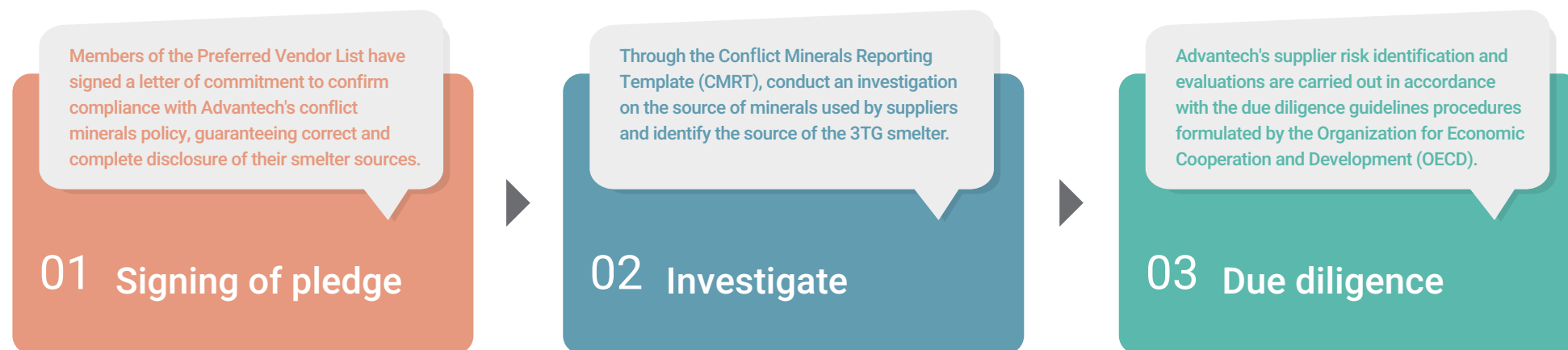
Table 2.3.3: Supplier Audit Deficiencies and Improvement Actions in 2021

Classification	Primary Deficiency Uncovered	Improvement Action
 EHS Management	The supplier has established environmental safety and health policies for its activities, products, and services, but has not publicized their implementation	Require to strengthen the publicity of environmental safety and health policies and guidelines
	The supplier's environmental safety and health goals and indicators have been formulated with consideration of major environmental factors related to its activities, products and services, but there is no third-party certification	Manufacturers are requested to apply for ISO 14001 related certification
	Suppliers do not have systems in place to reduce waste and save energy	The manufacturer is requested to conduct regular inspections to ensure the classification and storage of hazardous substances
 Social Responsibility	The supplier has established procedures to identify, assess and control worker safety hazards, but these have not been actually implemented	The manufacturer is requested to strengthen implementation
 Hazardous Substances Free Management	The supplier has established Hazardous Substances Free (HSF) policies and objectives, but the policies and objectives are not regularly reviewed	Require strengthened management
	The supplier has carried out normative identification of the machines, work tables, equipment and fixtures used in the production of HSF products; however, regular inspections have not been carried out to ensure that the classification of hazardous substances is implemented	The supplier is required to conduct regular inspections to ensure the classification and storage of hazardous substances

Conflict Minerals Sourcing Strategy

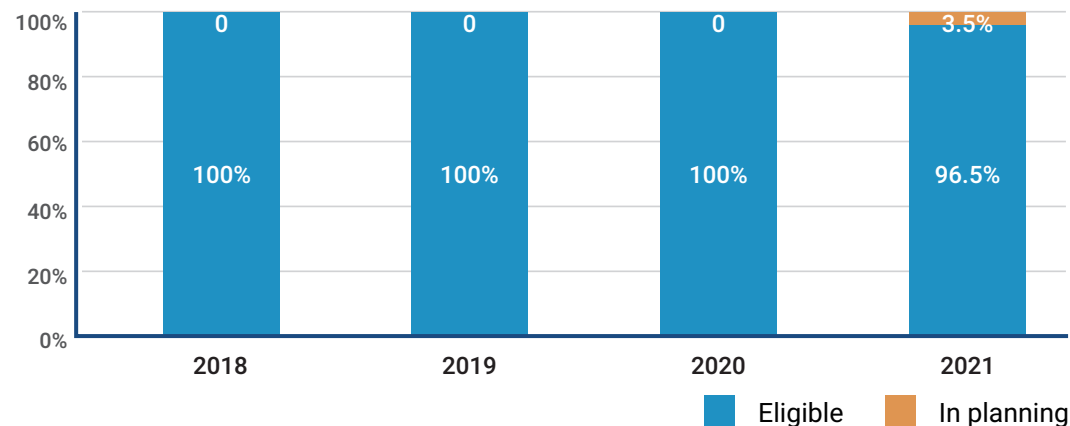
Advantech follows the Responsible Business Alliance (RBA) Code of Conduct to implement the policy of not using conflict minerals. In addition to our own declaration and commitment not to accept the use of metals from conflict mining areas, we also require Advantech's suppliers to abide by and make commitments to ensure that Advantech's supply chain respects human rights and does not have involvement in conflict activities. As of 2021, 100% of Advantech Preferred Vendor List had signed the Declaration of Non-Use of Conflict Minerals. In addition, none of Advantech's own products use conflict minerals.

Advantech communicates its policies and requirements for not using conflict minerals to suppliers through the Company's green procurement website, requiring the Preferred Vendor List to comply with and communicate to their next-level suppliers. In addition, we require suppliers to conduct a reasonable degree of mineral source country investigation (RCOI) to identify and confirm the source of conflict minerals in manufacturing and service products (3TG*) to determine whether they come from conflict areas. RCOI investigation consists of the following steps:



According to the 2021 conflict minerals due diligence results, we have identified 255 smelters in our supply chain. Among them, a total of 246 smelters are eligible-compliant per the standards of the Responsible Minerals Assurance Process (RMAP) (or equivalent cross-accreditation assessment) and a total of nine are participating in the plan, and the qualified smelter ratio is 96%.

*Note: 3TG refers to minerals mined from the Democratic Republic of Congo and surrounding countries, such as: tantalum, tin, tungsten, gold, and other minerals.



2.4 Risk Management

Management Guidelines for Major Topics

Materiality	The purpose of risk management is to protect and enhance corporate value, being able to structure and systematically assess existing and potential risks that may be faced, making timely and responsive decisions that meet the Company's operational goals, and ensuring that goals are achieved while enabling continuous improvement. As a global leader in our industry, Advantech has had a continuous focus and drive for significant strategic and operational risk management.
Policies/ Commitments	Develop risk management policies and operational continuity plans; formulate and promote various risk avoidance and response measures in advance; define handling mechanisms for when risk occurs in order to minimize their potential impact and influence; and achieve subsequent correction and management. In addition, regarding the content and response methods of the Company's main pan-strategic and pan-operational risks, Advantech strives to provide transparent and immediate messaging and communication to stakeholders who are potentially affected.
Management Objectives	In view of rapid changes in the global industry, the international situation, and the wave of digitalization, as well as the impact of the COVID-19 pandemic and of information security incidents, Advantech believed that it was necessary to strengthen the original risk management mechanism, review the risk management governance structure, the composition and operation of the Risk Management Task Force, and the risk management operation process by the end of 2020, and promote it in a more systematic and structured way starting from 2021.
Management Policy/Action Plan	The Board of Directors and the Audit Committee are the highest governance units for risk management. The risk management team is responsible for the promotion of the risk management process and for quarterly review of risk tracking implementation. The responsible supervisor is in charge of formulating response measures and the actual implementation of risk projects. For details, please refer to Figure 2.4.1: Advantech's Risk Governance Structure and Figure 2.4.2: Risk Management Task Force. Please also refer to Advantech's official website for the annual operation process of risk management: Risk Management-Risk Management Mechanisms .
Effectiveness Assessment	<ul style="list-style-type: none"> • The risk team meets quarterly to track the progress and effectiveness of key risk responses. • The risk team explains the annual risk management plan and the actual promotion effect to the Board of Directors every year. Major risk items will also be included in the report of the Board of Directors or the Audit Committee depending on the materiality and nature of the risk. • Climate change risk, information security risk, and supply chain risk are all important risk management issues for Advantech; please refer to sections 4.2, 2.2, and 2.3 for details. • Please refer to Figure 2.4.3 below for the 2021 risk map.

Figure 2.4.1 Advantech's Risk Management Governance Structure

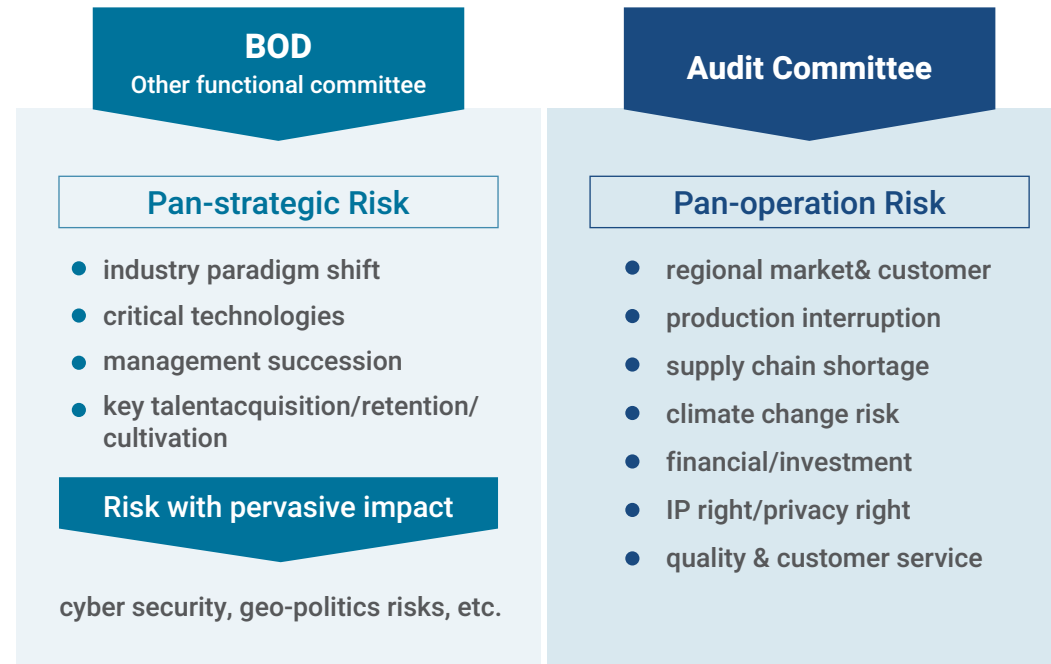


Figure 2.4.2 Risk Management Task Force

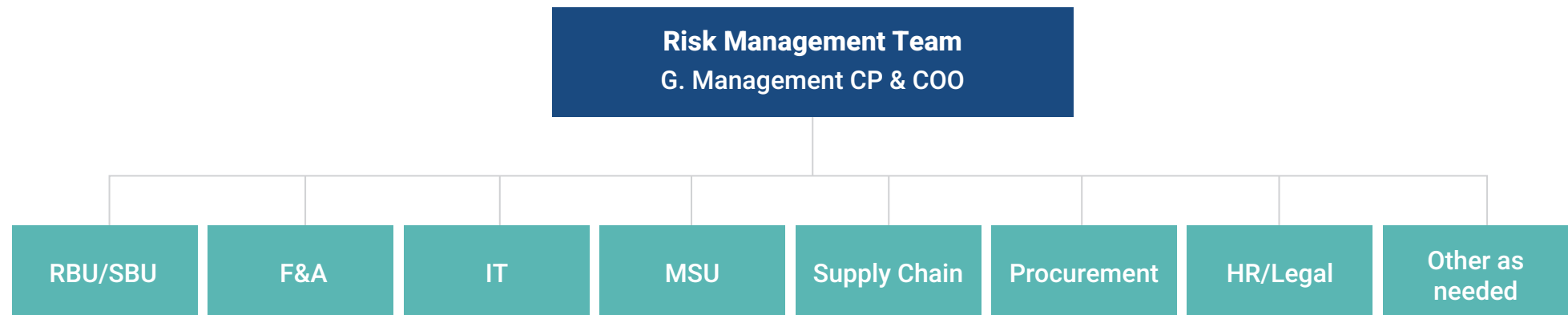
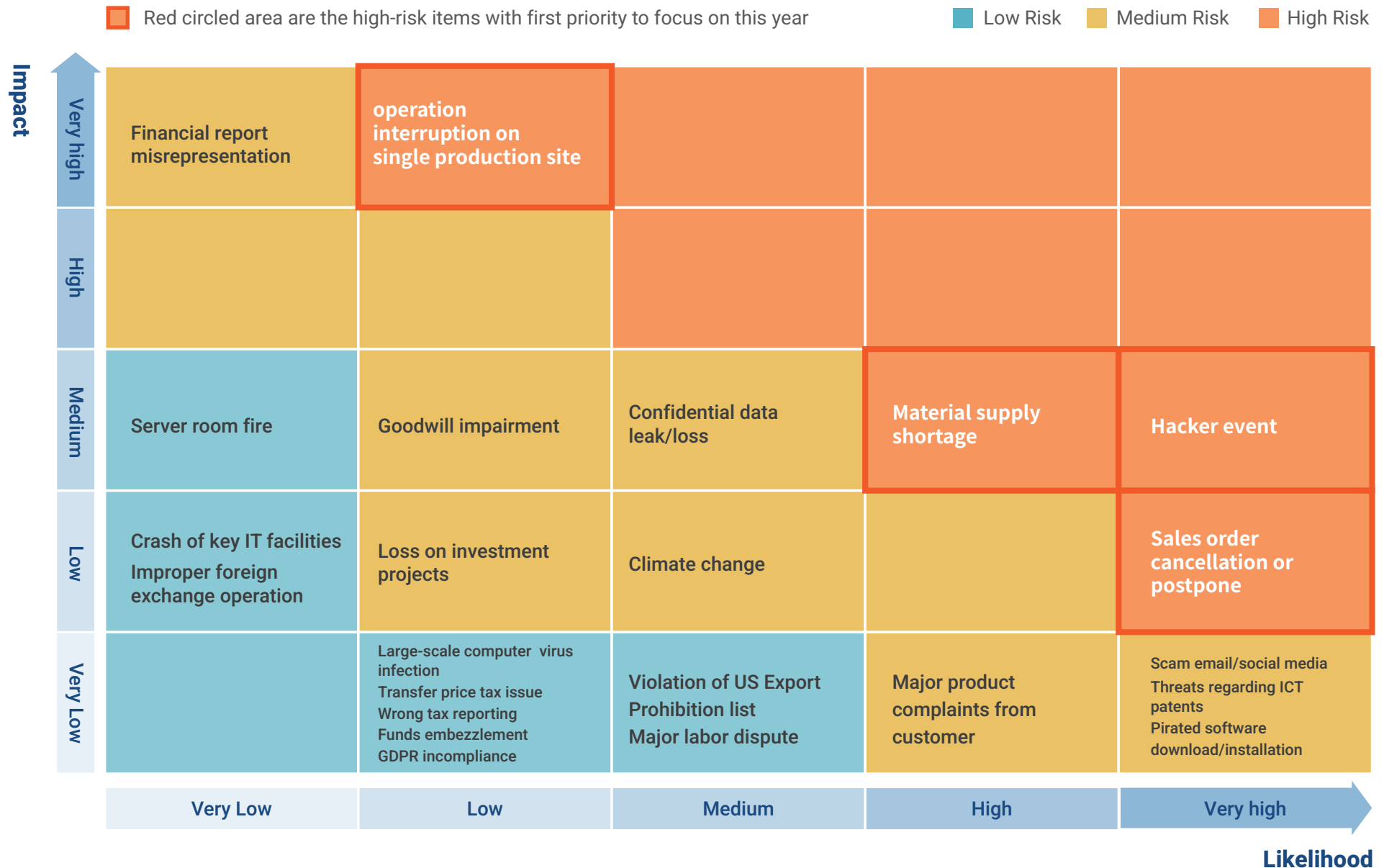


Figure 2.4.3 2021 Risk Map



2.5 Appendix : Participation in Public Associations

Advantech still adheres to its corporate vision of “Enabling an Intelligent Planet” and upholds this as our core goal. We participate in official and non-governmental organizations domestically and abroad to promote issues related to Industrial Internet of Things; these include intelligent buildings, environment and energy, intelligent healthcare, intelligent retail, intelligent logistics, intelligent transportation, and Industry 4.0. Furthermore, we actively co-create with various industry partners to accelerate the formation of industrial ecological chains in a range of industries to assist Taiwan and the global industry amid this paradigm shift.

Performance Overview



We continued to participate in nearly **40** industrial IoT industry application and technology promotion associations and alliances domestically and abroad (see Table 2.5.1 for details).



We had annual fixed investment of **at least NT\$3 million** or more to support the promotion of related industrial technologies, issues, and trends (see Table 2.5.2 for details).

Project Highlights

Launched 5G+ Accelerated Intelligent Manufacturing Forum

Sharing Advantech's industry experience in intelligent manufacturing, we joined the Taiwan Electronic Equipment Industry Association to launch and promote 5G in intelligent manufacturing applications. The meeting was attended by 87 industry-related heavyweight industry experts.

Intelligent Machine Cloud Platform Business Launch Ceremony

Together with the Ministry of Economic Affairs, the Taiwan Association of Machinery Industry, Autodesk, Mitsubishi Electric, Moldex3d, Microsoft, and other units of manufacturing, government, academia, and research, Advantech jointly announced that the Intelligent Machine Cloud Platform had officially entered the market. The Intelligent Machine Cloud Platform currently has 23 store-in-stores, 152 apps, and thousands of manufacturers joining as members, while 41 manufacturers have introduced and used it while driving NT\$361 million of investment.

FDA Medical Cold Chain Technology Online Forum

Advantech joined the Taiwan Cold Chain Association and system integrator Allion to jointly hold the FDA Medical Cold Chain Technology Online Forum, sharing medical cold chain solutions of the greatest concern and necessity with industry experts, and then promoting and explaining how to use AIoT solutions to solve the real needs of society. The live broadcast saw the participation of 159 individuals online, while the YouTube playback rate has exceeded 1K so far.

Anticipating a Big Future-Intelligent Technology Series: AIoT Digital Transformation Drivers

Advantech was invited to join in the Anticipating a Big Future-Intelligent Technology Series produced by the Mt. Dadu Industrial Innovation Foundation. Here, we shared how to carry out digital transformation through AIoT, and we talked about the role of AIoT technology and how it affects human life in the era of G2 competition, carbon neutrality, and the post-pandemic era, as well as discussing how companies make decisions in response to a changing world. This series was broadcast on LINE TV and YouTube, Central Taiwan News, CTS, and other online and cable TV platforms.

Table 2.5.1: List of Advantech's Annual Participation in Associations

Public association	Dues	Membership category	Strategic significance
Taiwan Intelligent Building Association	✓	Organization membership	Promote intelligent building ecosystems and industrial development
Cloud Computing & IoT Association in Taiwan	✓	Tier 2 membership	Promote cloud application services while enhancing the value of the national information and communication industry
Taipei Computer Association	✓	At-large membership serving as director	Promote computer applications, promote economic development, and coordinate industry solidarity
Taiwan Automation Intelligence and Robotics Association	✓	Tier 1 membership Serving as director	Signed a memorandum of cooperation in 2014 Served as practical lecturer for Association courses on several occasions
Taiwan Electrical and Electronic Manufacturers' Association	✓	Tier 1 membership	Promote IoT platform and intelligent manufacturing development
Taiwan Electronic Equipment Industry Association (TEEIA)	✓	-	Promote the construction of the Internet of Things platform and improve the cooperation ecosystem of Taiwan's electronic equipment
Taiwan Printed Circuit Association	✓	-	Industrial cooperation and marketing promotions
Chinese International Economic Cooperation Association (CIECA), Taiwan	✓	-	By participating in the international economic cooperation affairs of the organization, we assist in expanding the substantive relationship between Taiwan's industrial IoT applications and countries around the world
Taiwan Association of Machinery Industry (TAMI)	✓	-	Assist the machine tool industry and other machinery industries in introducing intelligent machinery applications. Expand Taiwan's intelligent machinery cloud ecosystem.
Taiwan High-Tech Facility Association	-	Founding member	Promote the IoT industry ecological chain
Taiwan Telematics Industry Association	✓	Tier 2 membership Serving as director	Promote the development of Taiwan's IoV industry and enhance the industry's international competitiveness
Taiwan Cold Chain Association	✓	Tier 1 membership	Formed a national cold chain team with the advanced industry, government, and academic circles in the Association to establish a foothold in Taiwan and promote the southbound market
Preparatory Advisory Committee, Global Organization of Smart Cities (GO SMART)	-	Preparatory Advisory Committee	Promote the implementation of smart city application solutions and export Taiwan related products overseas
Taiwan Smart City Solutions Alliance	-	Founding member	Promote Taiwan Real Site Demo. Promote Smart City Exhibition Promote the key role of Taiwanese manufacturers in smart cities
Asia Silicon Valley Development Agency	-	At-large membership	Establish a new IoT industry by promoting the application of IoT technology
Edgecross Consortium (Japan)	-	Founding member	Realize the connection and integration of factory automation (FA) and information technology (IT) to jump start Industry 4.0
e-F@ctory Alliance	-	At-large membership	Promote factory automation and Industry 4.0 applications
Embedded Linux & Android Alliance (ELAA)	-	Founding member	Promote open and standardized Linux and Android hardware and software architectures; establish and improve the software and hardware industry ecosystem
LoRa Alliance	-	Member	Layout of wide-area low-power wireless networks in the development of IoT applications

Public association	Dues	Membership category	Strategic significance
Intelligent Industry Computer IoT Association	✓	Tier 1 membership	This is a joint establishment of Taiwan's industrial computer industry, hoping to jointly promote AIoT-related policies and form industry promotion consensus and direction
Association for Advancing Automation (AIA) (US)	✓	At-large membership	An association for deepening industrial automation technology
OPC Foundation (US)	✓	At-large membership	Definition of future technical standards for the industrial Internet of Things
Open Device Net Vendors Association (ODVA) (US)	✓	At-large membership	Promote industrial automation related technologies and standards
Control System Integrators Association (CSIA)	✓	At-large membership	Promote industrial automation related technologies and standards
Association for High Technology Distribution (AHTD) (US)	✓	At-large membership	Promote industrial automation related technologies and standards
American Public Transportation Association (APTA) (US)	✓	At-large membership	Promote smart transportation-related technologies and strategies
Intelligent Transportation System America (ITS America) (US)	✓	At-large membership	Promote smart transportation-related technologies and strategies
MyIoT Consortium (Japan)	-	At-large membership	Promote IoT-related technologies
Kyudai Global Open Innovation Network Engine (KOINE) (Japan)	-	At-large membership	Promote IoT-related technologies
Waseda University IPS Kitakyushu Consortium (Japan)	-	At-large membership	Promote IoT-related technologies
DX Corporate Strategy Research Consortium (Japan)	-	At-large membership	Promote IoT-related technologies
Fukuoka Prefectural Robotics & Advanced System Industry Development Council (Japan)	-	At-large membership	Promote industrial IoT and robotics-related technologies
SoftBank ONE SHIP (SoftBank IoT Business Partner Consortium)	-	At-large membership	Promote IoT-related trends
Alliance of Industrial Internet (China)	✓	Chairperson	Promote IIoT-related technologies and trends
China Communications Standards Association (CCSA) (China)	✓	At-large membership	Promote industrial IoT policy
Edge Computing Consortium (China)	✓	At-large membership	Promote IIoT-related technologies and trends
China Artificial Intelligence Industry Alliance (China)	✓	At-large membership	Promote AI-related technologies and trends
Machine Vision Industry Union (China)	✓	At-large membership	Promote machine vision related technologies and trends

Table 2.5.2: Advantech's Annual Investment in Public Association Unit Resources

Public Association	Details	Amount Invested
Taiwan Intelligent Building Association	2021 dues	10,000
Cloud Computing & IoT Association in Taiwan	Annual membership fee for Tier 2 members in 2021	50,000
Taipei Computer Association	Annual membership fee in 2021	15,000
Taiwan Automation Intelligence and Robotics Association	Annual membership fee in 2021	40,000
Taiwan Electrical and Electronic Manufacturers' Association	2021 first installment dues, January-June	21,000
Taiwan Electrical and Electronic Manufacturers' Association	2021 second installment dues, July-December	21,000
Taiwan Electronic Equipment Industry Association (TEEIA)	2021 annual membership fees	30,000
Taiwan Printed Circuit Association	2021 annual membership fees	48,000
Chinese International Economic Cooperation Association (CIECA), Taiwan	2021 annual membership fees	20,000
Taiwan Association of Machinery Industry	2021 annual membership fees	52,800
Taiwan Telematics Industry Association	2021 annual membership fees	20,000
Taiwan Cold Chain Association	2021 annual membership fees	20,000
Edgexcross Consortium (Japan)	2021 annual membership fees	132,000 / JPY 550,000
Intelligent Industry Computer IoT Association	2021 membership entry fee + 2021 annual membership fee	100,000
Association for Advancing Automation (AIA) (US)	2021 annual membership fees	50,058 / USD 1,800
OPC Foundation (US)	2021 annual membership fees	500,580 / USD18,000
Open Device Net Vendors Association (ODVA) (US)	2021 annual membership fees	216,918 / USD 7,800
Control System Integrators Association (CSIA)	2021 annual membership fees	86,211 / USD 3,100
Association for High Technology Distribution (AHTD) (US)	2021 annual membership fees	34,763 / USD 1,250
American Public Transportation Association (APTA) (US)	2021 annual membership fees	38,239 / USD 1,375
Intelligent Transportation System America (ITS America) (US)	2021 annual membership fees	139,050 / USD 5,000
Japan Railway Engineers' Association (Japan)	2021 annual membership fees	5,760 / JPY 24,000
Alliance of Industrial Internet (China)	2021 annual membership fees	1,005,100 / CNY 230,000
China Communications Standards Association (CCSA) (China)	2021 annual membership fees	218,500 / CNY 50,000
Edge Computing Consortium (China)	2021 annual membership fees	87,400 / CNY 20,000
China Artificial Intelligence Industry Alliance (China)	2021 annual membership fees	56,810 / CNY 13,000
Machine Vision Industry Union (China)	2021 annual membership fees	52,440 / CNY 12,000
Total amount		NTD 3,071,628

*Note: Exchange rates as of 1/28/2022, as follows: NTD/USD, NTD 27.81; NTD/JPY, NTD 0.24; NTD/CNY, NTD 4.37