

# 3

## Innovation and Services

- 3.1 Sustainable Intelligent Solutions
- 3.2 Innovative Mechanism
- 3.3 IoT Application Promotion and Education
- 3.4 Customers and Partners Co-Creation



## 3.1

## Sustainable Intelligent Solutions



Item	Explanation
Policy or commitment	<p>Advantech has assembled product R&amp;D capabilities and local technical teams to embrace new opportunities in key application domains such as factory automation, renewable energy infrastructure, EV batteries and charging pile equipment, smart healthcare, and smart retailing.</p> <p>Incorporate the concept of sustainability into the strategic blueprint for new product development and market expansion across business units. Establish quantifiable plans for sustainable products and services, and expand the scope and performance targets of related product departments (such as Environmental and Energy, Smart Healthcare). This will in turn amplify the positive impact on the environment and society through Advantech's products and services.</p>
Impact description	<p>Sustainable intelligent solutions are being used to improve convenience and efficiency in a variety of industries, including smart factories, intelligent transportation, healthcare, energy management, and smart warehouses. These solutions have a positive economic impact because they streamline processes and boost productivity. The shift toward automation is becoming increasingly important, particularly in the context of a global labor shortage, and it serves as a critical strategy for closing the human resource gap.</p> <p>Advantech's iEMS series solutions help enterprises save energy, reduce carbon emissions, and make energy transition to make a positive impact on the environment in the global net zero development trend. However, intelligence and AI will indeed replace part of the labor force and bring corresponding social impacts.</p> <p>In the face of the possible impact on society and employment, Advantech has also long invested in the cultivation of industry talents, such as IoT industry-academic cooperation, IoT industry-academic internship project, and IoT education online certification course. Committed to shortening the gap between learning and application, and bringing more innovative talents in IoT to the world. For the industry-academia education content related to IoT, see 3.3 IoT application promotion and education.</p>
2023 Goals achievement status	<p>Achieved.</p> <p>In 2023, the target for revenue of sustainable intelligent solution ratio is 19%, and the actual result is 39.9%. (Note: In 2023, we calculated contributions to the EU Taxonomy indicators, focusing on mitigating climate change and enhancing climate adaptation. Advantech's sustainable smart solutions were assessed for their contributions to these areas. Therefore, the calculation methods for the two years are different.)</p>
2024 Goals	41% of revenue comes from the sale of sustainable products or solutions.
2025 Goals	42% of revenue comes from the sale of sustainable products or solutions.
2030 Goals	47% of revenue comes from the sale of sustainable products or solutions.
Key actions or programs	<ul style="list-style-type: none"> <li>Establish a clear blueprint for sustainable product R&amp;D and design and improve product integration. With reference to sustainability-related indicators, those with high applicability are included in Advantech's existing eco products and related operating activities specification to gradually enhance sustainability.</li> <li>Establish ecosystem partners. By leveraging the value and technological advantages of partners, we can provide users with better value, thereby creating mutual prosperity and sustainability for Advantech, ecosystem partners, customers (enterprises or individuals), and the earth.</li> <li>Continue to pay attention to the development of sustainability-related regulations, and incorporate the development of sustainable indicators, certifications, or technologies related to products or solutions in the development direction.</li> </ul>
Effectiveness assessment	<ul style="list-style-type: none"> <li>Regularly review revenues from smart energy management solutions, smart factory solutions, smart telemedicine, smart agriculture solutions, smart education solutions, smart transportation, and smart logistics.</li> <li>Each business group has monthly, quarterly, and annual review mechanisms to review strategies, plans, inventory, revenue, gross profit, net profit margin, and other revenue conditions on a regular basis.</li> <li>Enter into external awards or competitions. For example, Advantech participated in and exhibited at E-Mobility Taiwan organized by Taiwan External Trade Development Council (TWSE) and was selected as the ESG Achievement logo; USC-365 POS machine won the 2023 Taiwan Excellence Awards (<a href="#">Click here</a>); Performance evaluation via external honors</li> </ul>
Stakeholder engagement	<p>In recent years, Advantech has noticed that customers have become increasingly concerned with issues such as energy conservation, carbon reduction, and product carbon footprint. There is also considerable interest in Advantech's social contributions and corporate governance. In response to the above issues, Advantech has various discussions and experiences with customers, and then forwards customers' expectations to the relevant units, including the improvement of product sustainability and the acceleration of product carbon footprint disclosure.</p>

With the vision of "Enabling an intelligent planet" we are committed to achieving sustainable development in the world. By utilizing IoT technology and comprehensive product solutions, we enhance customers' resource utilization and production efficiency, reduce energy waste and carbon emissions, thereby promoting sustainable development. This is achieved through the development of IoT software and hardware products and services in areas such as energy management, transportation and logistics management, smart agriculture, smart factories, telemedicine, education, and maintenance services. Advantech is also committed to gradually expanding the proportion of revenue from sustainable intelligent solutions.

According to the revenue share of sustainable intelligent solutions classified under climate change mitigation indicators and climate change adaptation indicators as determined by the EU Taxonomy Sustainable Reporting Framework in 2023, the proportion amounted to 39.9%, or NTD 25,766,635K. The calculation methodology for this reporting scope is as follows:

**Step 1:** Refer to the classification, meaning, and peer identification of the Sustainable Development Taxonomy, and then further explain the connotation of economic activities based on Advantech's products and operating activities.

**Step 2:** Advantech units including product, manufacturing, R&D, procurement, and investment evaluate the relevance of the activities in 2023 based on the economic activity descriptions.

**Step 3:** A total of 17 economic activities were identified, corresponding to the domains of climate mitigation and climate adaptation. Advantech's 2023 EU Taxonomy Eligible revenue, capital expenditures, and operating expenditure were inventoried accordingly. Collect and disclose financial data of economic activities and issue a summary report.

In the future, Advantech will refer to international sustainability indicators, improve its methodology year by year, incorporate sustainability indicators into its green operations management, enhance the planning of eco products and services, enhance ESG performance, and continue to monitor the latest sustainability developments with regularly updated results.

	Revenue		Capital expenditure		Operational expenditure	
Total amount (Currency: NTD)	Total amount (Currency: NTD) 64,567,697K	100%	Total Amount (Currency: NTD) 1,197,587K	100%	Total Amount (Currency: NTD) 14,033,564K	100%
Total of which is Taxonomy- Eligible Amount (Currency: NTD)	Total amount (Currency: NTD) 25,766,635K	39.9%	Total Amount (Currency: NTD) 477,914K	39.9%	Total Amount (Currency: NTD) 5,600,288K	39.9%
Total of which is not Taxonomy Eligible Amount (Currency: NTD)	Total amount (Currency: NTD) 38,801,062K	60.1%	Total Amount (Currency: NTD) 719,673K	60.1%	Total Amount (Currency: NTD) 8,433,276K	60.1%

**\*Note:** The ratios of capital expenditure and operational expenditure are estimated based on the ratio of revenue.

Table 3.1.1: 2023 Advantech sustainable intelligent solutions financial disclosures with reference to the EU taxonomy



### Case highlights 1

## Advantech facilitates low-carbon transition of smart electric buses in Vietnam

Location: Vietnam

Partners: VinBus, Vinfast, Vingroup, TAITRA

Advantech has formed a strategic partnership with VinGroup, Vietnam's largest conglomerate, specifically with its subsidiaries VinBus and VinFast, which specialize in smart electric buses. Advantech offers an integrated solution for smart buses that incorporates AI and vehicular networking technologies. Advantech's TREK smart bus management system includes advanced driving assistance systems (ADAS), driver behavior management, passenger Wi-Fi, and an advertising broadcasting system. This collaboration focuses on the integration of cutting-edge technologies to improve the efficiency and user experience of public transportation in Vietnam.

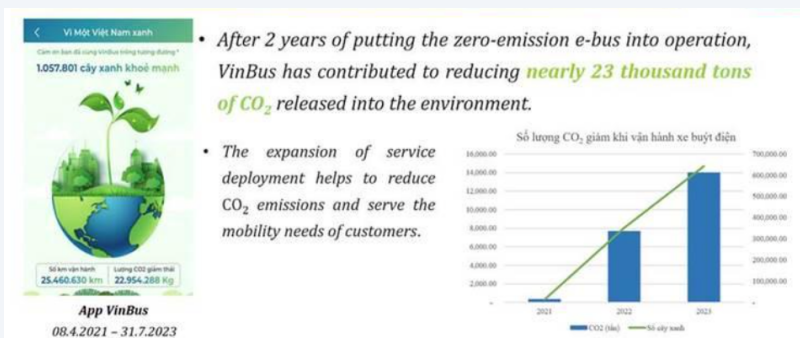
Advantech's TREK smart bus solution includes VinBus electric buses, which provide passengers with an environmentally friendly, safe, efficient, and comfortable public transportation experience. Furthermore, these buses use AI image identification to manage driver behavior in real time, which improves intelligent driving safety features. This includes blind spot detection, speeding, emergency braking, distracted driving, and sending out instant alerts for activities like using a phone while driving. These capabilities ensure the highest level of passenger safety. VinBus smart electric buses are Vietnam's first public transportation equipped with AIoT technology, which is committed to improving passenger safety, convenience, and comfort.

**Environmental impact:** VinBus and Advantech are deploying 2,000 to 3,000 electric buses in major cities in Vietnam. The TREK system improves the safety, comfort, and convenience of buses. The accurate route planning, arrival time estimation, and the free Wi-Fi service enhance passenger satisfaction and willingness to ride, and effectively reduce urban carbon emissions. After investigation with customers, a total of 25.46 million kilometers in two years of operation and maintenance is equivalent to 23,000 tons of carbon reduction. Related information: [VinBus - Home](#)

**Social impact:** Advantech assisted the bus operator VinBus in collecting mileage, vehicle condition, and battery information to the cloud platform by leveraging IoV technology and experience in the global bus industry. It optimizes energy-saving driving mode, estimate battery health status in real-time as future preventive maintenance data, and provide operational solutions from energy consumption data. The advanced driving assistance system (ADAS) effectively reminds drivers of distracted driving behaviors, reduces visual blind spots and the incidence of accidents, and enhances traffic safety.



Image source: [Vietnamese consumers are willing to pay for electric buses, cosmetics, and new gadgets. - Business Today \(businesstoday.com.tw\)](#)



Related Reports:

- [Vietnamese consumers are willing to pay for electric buses, cosmetics, and new gadgets. - BusinessToday \(businesstoday.com.tw\)](#)
- [\[VinBus Opening Ceremony\] Vietnam's first electronic bus route](#)





## Case highlights 2

### iEMS empowers the semiconductor industry's digital and low-carbon transformation.

Location: China

Partner: Vishay

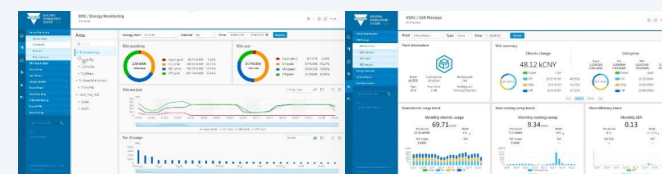
Advantech's intelligent energy management system (iEMS) helps customers meet ESG, net zero, and carbon neutral requirements. Solve the shortcomings of customers' production efficiency and energy utilization in the face of the impact of the IIoT on the entire industry. Advantech integrated multiple independent systems, including energy and power systems, into a single intelligent control system to assist in energy consumption management and find the most cost-reducing decisions.

The customer uses the energy management solution (EcoWatch) in the overall iEMS solution to realize the monitoring, statistics, management, and declaration of energy consumption mainly for water, electricity, gas steam, and renewable energy. Identify energy hotspots, guide energy consumption behavior changes, and plan energy-saving and carbon reduction actions. The equipment lifecycle management and maintenance solution (Machine Unite+PHM+Patrol) realizes the connection between process equipment and public facility equipment to perform equipment lifecycle management, improve availability, and reduce downtime and risks.

#### Environmental impact:

- According to customer feedback, after implementing the solution, monthly electricity consumption is reduced by about 15-30%, and annual electricity bills are reduced by nearly one million yuan, which equates to a reduction of 1,562,277 kWh of electricity consumption. Equivalent to reducing 1,557,590 kg of CO2 emissions and planting 129,799 trees.
- Analyze the power consumption of the production unit, identify unreasonable power consumption, and optimize the energy efficiency of the manufacturing process.

**Economic impact:** We proactively reduce energy costs and carbon emissions, accelerate compliance with laws and regulations in various countries, and meet ESG/net zero/carbon neutral requirements set by customers and financial investors to enhance our competitive advantages.





### Case highlights 3

## Electronic paper introduced into smart factory warehousing

Advantech assisted a semiconductor manufacturer to replace the expensive clean paper with electronic paper in the clean room marking wafer cassette to help the semiconductor factory to record the marking of the production process. Wafer cassettes can be marked directly in the clean room and items are clearly marked during transportation after leaving the factory to improve the accuracy and efficiency of the process.

**Environmental impact:** 4,000 pieces of electronic paper are replaced twice a day, with an estimated 2,920,000 image changes per year and carbon emission reduces by 52,560,000g, which is equivalent to the adsorption capacity of 3.5 hectares of forest.

**Economic impact:** The project was successfully introduced into the semiconductor industry, which subsequently stimulated the industry's willingness to introduce the industry chain, enhanced its financial operation for the entire industry, and stimulated the overall industry to move towards sustainability.



This electronic paper is placed in the wafer cassette to describe the production work order and production process. When implementing production process record marking in the semiconductor factory, in the semiconductor clean room with high requirements for the working environment, the use of clean paper will increase the cost, and the use of ordinary paper will bring in dust. Therefore, the use of electronic paper in the clean room to label the wafer cassettes can be regarded as an innovation. The overall production process is streamlined and the items are clearly labeled during transportation after leaving the factory. There is no need to re-check traditional paper labeling, which effectively improves economic efficiency.



### Case highlights 4:

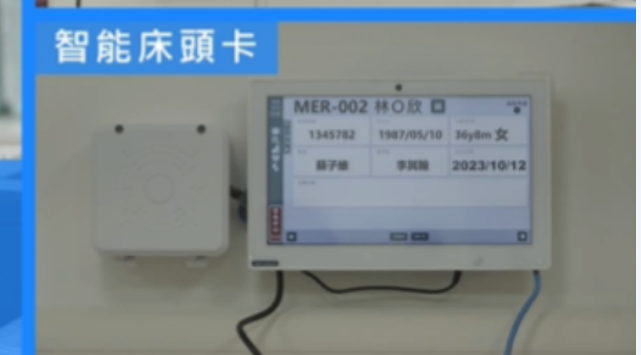
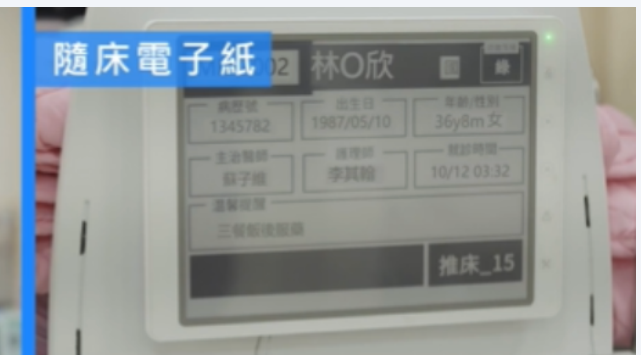
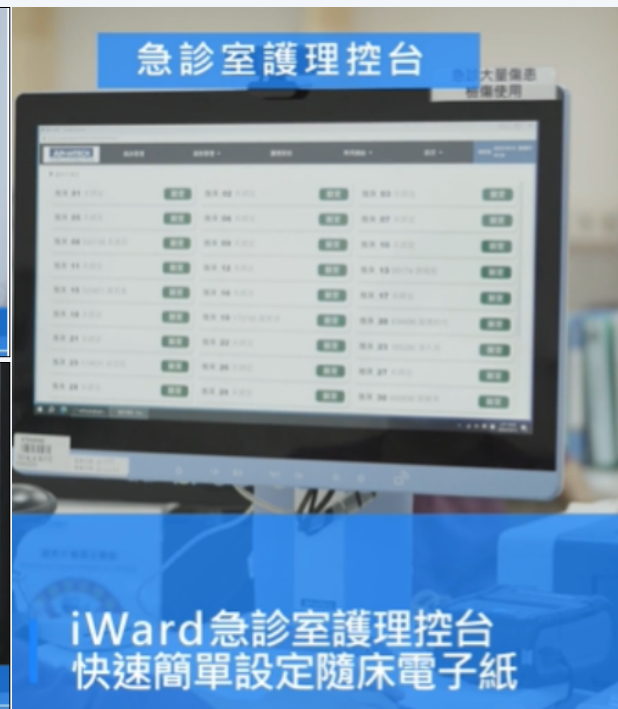
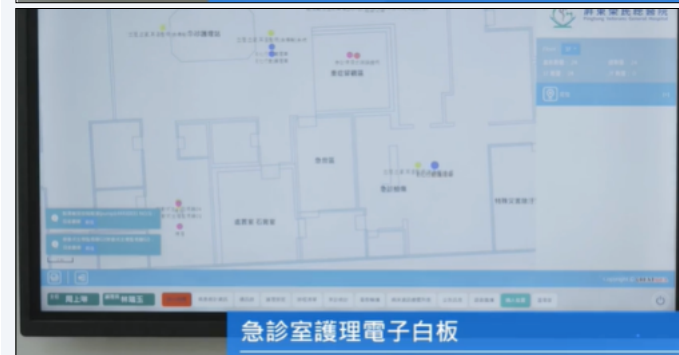
## Advantech iWard smart emergency solution - Pingtung Veterans General Hospital



With the help of Advantech, the new Pingtung General Hospital has built a smart medical system to manage and present all medical information of patients electronically from admission to discharge to enhance the precision and efficiency of care and nursing. Compared to the past, medical personnel were in a hurry at the scene, resulting in the failure to update patient information in a timely manner, resulting in the difference in the time, quality and accuracy of obtaining patient information between medical and medical teams. Advantech provides a series of smart emergency solutions for emergency room, such as electronic nursing whiteboard, nursing console, bed electronic paper, smart bedside card, etc., to make nursing and care work more efficient and accurate, and to improve the quality of medical care.

未看診	0人	檢傷1類	0人
急診中	7人	檢傷2類	2人
已出院	19人	檢傷3類	24人
住院(普通病房)	0人	檢傷4類	0人
住院(加護病房)	0人	檢傷5類	0人
轉院	0人		
退掛號	0人		

急診室護理電子白板



## 3.2 Innovation Mechanism

Advantech's innovation mechanisms include product, technology, business, and academia collaborations. Under the leadership of the chairman and senior supervisors, Advantech's innovation mechanisms include three major categories and six types of implementation:

### Business Innovation and emerging business opportunities

**IMAX-C:** Includes business units' innovative strategies and practical plans such as product, sales, and organizational reform breakthroughs.  
**EBO:** Advantech colleagues worldwide conducted rigorous analysis and planning for emerging opportunities observed to formulate business plans for Advantech's new growth trajectory.

### Innovative products and technologies

**A+X:** The Chairperson and senior supervisor of the products department empowered product innovation directly and channeled resources to expedite new product development.  
**MCT/TSU:** The Technical Committee was established by the R&D supervisor to engage in centralized and horizontal management of the core technologies of each business unit, as well as to implement the modularization of forward-looking technology sharing (TSU-Technical Sharing Unit).

### Industry-academia research and co-creation

**University co-creation:** Conducted in-depth R&D and practical field verification with domestic and foreign universities to create new technologies and application breakthroughs.  
**Innoworks:** Provided software, computing resources, and online teaching for colleges and universities around the world to encourage the new generation of students to unleash their creativity and engage in practical development.

Advantech's innovation and development blueprint includes the IMAX-C mechanism, which brings new ideas and opportunities to its existing business units. This approach entails establishing new organizations, collaborating with external partners, and creating new products and services. It also emphasizes the consolidation and integration of internal resources. On the other hand, EBO investigates new business opportunities, new markets, and new technologies from the perspective of new businesses with low market maturity or outside the scope of the original business, and nurtures these new opportunities for Advantech's future development. Among these two endpoints, A+X is the extension of the existing business groups' new product strategy from the perspective of market development, while expanding the business territory, and achieving A+X through high-level empowerment and cross-unit integration. With the innovation of new products and businesses of these business units, MCT/TSU plays the role of core technology integration management. Advantech's blueprint emphasizes industry-academia co-creation, as well as Innoworks initiatives, to generate new ideas through academic and research collaborations. These efforts aim to generate innovative concepts about the future of the Internet of Things (IoT) as well as new generation product designs. This strategy is intended to position Advantech favorably in the AIoT (Artificial Intelligence of Things) integration, applications, and services sector, allowing for early ideation and exploration. This innovative mechanism fosters the development of novel business units and annually introduces fresh products to the market. Furthermore, apart from garnering accolades, it facilitates exceptional business performance, thereby empowering Advantech's core business to attain expedited expansion by capitalizing on prevalent trends and state-of-the-art research and development technologies. Examine the effectiveness and trends of innovation through internal innovation projects, stimulate the development of innovative products, and adjust product strategies at any time.

## Innovation Management

Different effectiveness indicators are given depending on the nature of the issues that each mechanism focuses on to ensure that innovation measures and mechanisms can maximize their benefits. Each innovation mechanism has its own defined goals (KPIs), conditions for achieving them, and follow-up actions. For example, the number of industry-academia research projects has been set, and a certain percentage of the outcomes has been set for technology transfer or continuation of cooperation with business units. For another example, in product innovation and industrial design, additional rewards are provided, and the revenue generated by new products after commercialization are tracked; for the EBO mechanism of business innovation, senior supervisors form an executive committee, give substantial support to the planning or results of innovative businesses and business models, and track the business development results of business units.



## 3.2.1 Business Innovation and Emerging Business Opportunities

### IMAX-C

#### Goals

Advantech structures its organization using a Business Unit approach, which includes Strategic Business Units (SBUs) focused on strategy and product development, as well as Regional Business Units (RBUs) dedicated to sales and regional development. Both units work together to oversee the company's operational management. The SBU benefits from the IMAX-C mechanism, which fosters innovation and business development. "I" stands for incubation, which involves nurturing new organizations; "M" and "A" represent Mergers & Acquisitions and Alliances, respectively, which facilitate connections with external partners; "X" stands for X-Product, which focuses on the development of new products and services; and "C" stands for Convergence & Consolidation, which involves the integration of internal resources to avoid redundancy in products or units.

#### Practices

Each SBU (Strategic Business Unit) product unit submits IMAX-C proposals from the bottom up, based on business level and market focus. These proposals start from individual product lines, are assembled across multiple product lines into product divisions, and further converge into business groups composed of several product divisions. This layered integration forms the overall strategic direction for innovation and management within the SBU.

After the product unit proposed IMAX-C innovation initiatives, the Company teamed up with multiple units within Advantech to conduct research, analysis, and discussions on product and service innovation, business model innovation, and organizational innovation. After the decision is finalized, the ABP (Annual Business Plan) of the SBU will be launched successively, which has become the cornerstone of the continuous growth and development of the SBU.

#### Results

In 2023, a total of 70 business unit IMAX-C strategic policy plans were produced. Among them are the market opportunities brought by the sustainable wave. In 2023, Advantech established AFE (Application Focused Embedded) to focus on emerging applications such as electric vehicles, robots, drones, and autonomous vehicles. They aim to define industry-specific platforms in collaboration with partners through the establishment of regional ecosystems.



## EBD (Emerging Business Development)

### Goals

Advantech follows the "Niche Business Unit Cluster" growth model, promotes core business goals with a vision, focuses on industries, and centralizes business strategies. In 2023, further expand the existing EBO (Emerging Business Opportunity) proposal management mechanism and integrate internal innovation incubation, external investment, and industry-academia/startup co-creation mechanisms to form the EBD (Emerging Business Development) mechanism. The goal is to explore innovative business opportunities beyond Advantech's core businesses, verify the feasibility of emerging business models and technologies, in order to expand the business territory and pursue sustainable corporate growth.

### Practices

In 2023, we combined IMAX-C's global emerging business opportunities, interaction with external consultants, and the annual "Vote for 2030" event at the WPC (World Partner Conference) to collect VOC (Voice of Customers) and invite key global customers/partners to conduct business tickets for emerging businesses and give feedback on the business opportunities they observe. Six major topics have been selected from nearly a hundred IoT industry opportunities to participate in the EBFT (Emerging Business Focus Topic) process, including GenAI industrial application solutions, industrial robots, green energy and energy storage solutions, digital healthcare, machine vision, and industrial wireless. This entails extensive market research and evaluation in order to create business plans. These plans are then scheduled to be presented at the EPCM (Executive Partner Committee Meeting), where senior supervisors make decisions on internal resource allocation, external investments, and business opportunity maturity assessments. Depending on the results of this assessment, opportunities may lead to the establishment of an incubation center to further develop the business idea, or they may result in the formation of a new BU (business unit) to strategize market deployment.

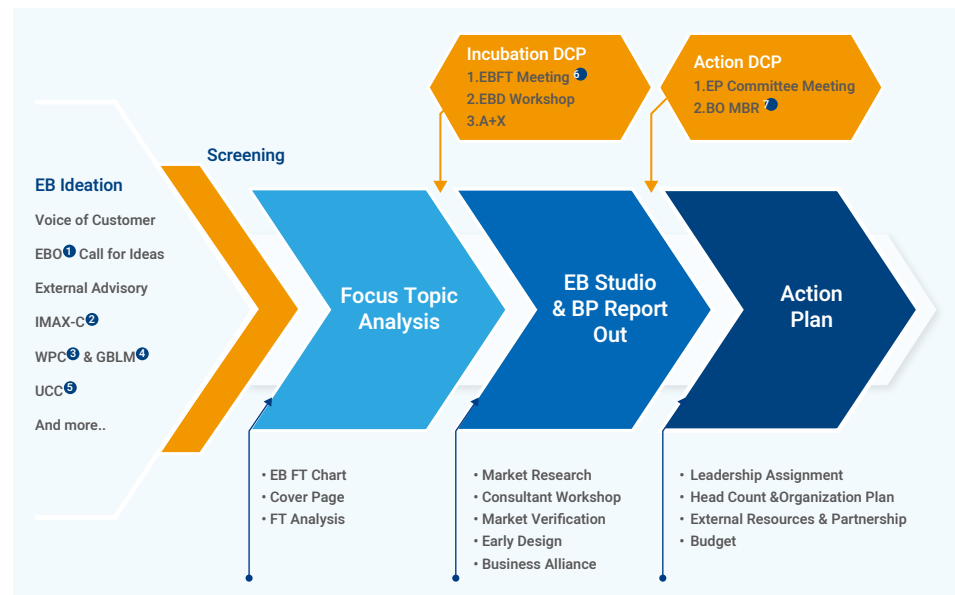


Figure 3.2.1: EBFT (EB Focus Topic) Promotion Process



Figure 3.2.2: "Vote for 2030" on-site voting situation

Generative AI will be the key word in technology and market development in 2023. Advantech will develop solutions suitable for industrial application scenarios by taking advantage of edge computing. Through discussion with external consultants and partners, as well as internal evaluations of product and technology requirements, we have established an AI Mission that will be launched on the market in 2025, which is divided into four major areas and 16 potential applications.

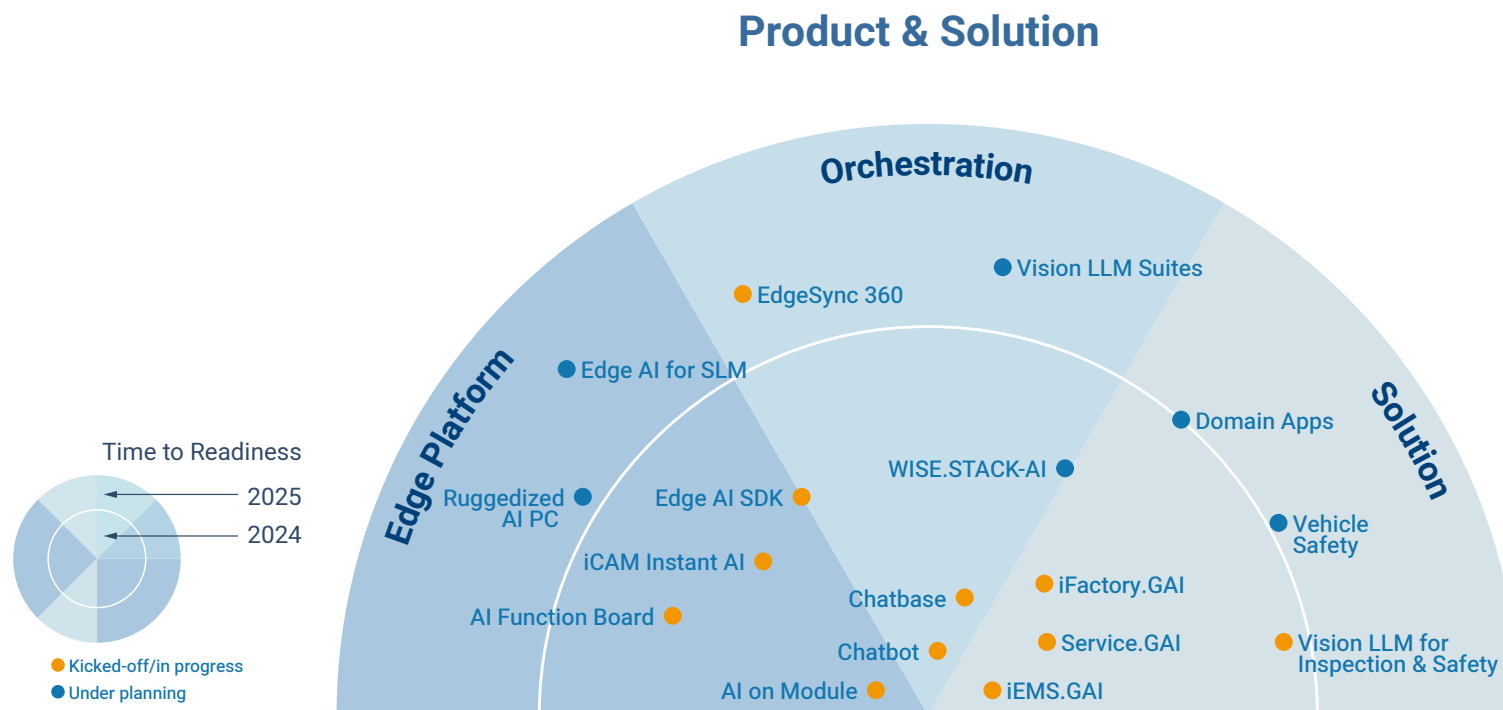


Figure 3.2.2: Advantech AI Mission Toward 2025-Product & Solution

## Results

In 2023, nearly a hundred external IoT business opportunities were identified, and six were advanced into the EBFT management process. Focused on issues such as the product and market consolidation and new business opportunities for industrial displays, this initiative led to the formation of three new Business Units (BUs): IDS (Industrial Display Systems), Industrial AI Master BU, and Edge AI Platform BU.

**EBD success stories****Established a new business group for industrial displays**

Since the establishment of Advantech Emerging Business Development, we have been searching for new business incubation opportunities both internally and externally. Market research shows that Advantech will have a wide range of niches in terms of technology and application for industrial display panels in the future. However, in the past, our corresponding product departments were scattered in various business units.

Therefore, starting from May 2023, EBD initiated a new business plan for industrial displays. After multiple consultations with senior supervisors and an analysis of the business overview, it was decided to consolidate the display product units distributed across various business units into a new business group. This reorganization will help align efforts across multiple market domains. Lastly, in terms of production and manufacturing, Advantech has established an independent production line in order to grasp the technical content and stabilize the production cost.

EBD plays multiple roles in the incubation strategy for this display business group. We also successfully completed the organizational planning in September 2023, and officially established a new business group in December 2023.

## 3.2.2 Innovative Products and Technologies

### MCT/TSU

#### Goals

A new Advanced Technology Committee, MCT – Meeting of Corporate Technology and Engineering, has been established by senior R&D supervisors. This committee is responsible for horizontally managing the core technologies across different business units and proactively deploying Advantech's forward-looking technology through a modular sharing approach (TSU-Technical Sharing Unit). It focuses on three key areas: digital transformation in R&D, cross-SBG (Strategic Business Group) sharing of IP (intellectual property), and a collaborative platform for core technology management.

#### Practices

Establish the Share TSU sharing and interoperability mechanism for the R&D teams of each business group to synergize their respective core technologies through horizontal connection and interoperability. The subjects were partitioned as follows: "Engineering," which centered on the growth and advancement of TSU R&D, encompassing the IP Sharing; and "Innovation," which prioritized the development of forward-thinking topics and advanced technology research to enable diverse business groups to collaboratively produce a comprehensive design while reducing the duration of R&D, thereby facilitating product innovation.



## Results

In 2023, Advantech improved and innovated and launched 353 new industrial computers, computing modules, edge computing equipment, network equipment, sensing devices, and industrial hardware and software integration solutions. Currently, the MCT R&D Technical Committee is held bi-monthly and chaired by senior R&D supervisors. The committee focuses on three major technical strategic issues for long-term implementation, as shown in the table below: MCT/TSU technical strategic issues

R&D exchange mechanism	Intelligent material selection and parts development roadmap	Product development platform
<ul style="list-style-type: none"> <li>● Complete digital and comprehensive IP digital platform to provide total service solutions required by various industries.</li> <li>● Intelligent automatic generation of design blueprints, and intelligent IP to complete circuit development</li> <li>● Assemble Advantech's bug solutions for quick search and accurate recommendations to shorten product development time and costs.</li> </ul>	<ul style="list-style-type: none"> <li>● Accurate mainstream material recommendation for refined and accurate mass production and winning customer trust.</li> <li>● Shorten the use of centralized materials to achieve economies of scale, and quickly reduce the cost of material purchase.</li> </ul>	<ul style="list-style-type: none"> <li>● Full R&amp;D data and all elements, real-time data transparency, and seamless communication between PM/R&amp;D/manufacturing, saving time and efficiency with building block module digital design, linking processes to accelerate product development.</li> </ul>

Table 3.2.2: MCT/TSU technical strategic issues



## 3.3 IoT Application Promotion and Education

### Industry-Academia Co-Creation

Advantech's industry-academia collaboration mechanism has invested industrial resources in the development of "three main pillars" aimed at cultivating IoT talent and bridging the gap between academia and industry. Advantech uses "Industry-Academia co-creation" in the value chain to connect academia, internal employees, and industrial ecosystem partners to develop applications and solutions collaboratively. This initiative directs the integration of Advantech's core competencies and resources to benefit society while fostering strong growth in the IoT industry. It also allows the academic community to direct research toward industrial development, resulting in more job opportunities.

### IoT Education leveraging Advantech's Core Business Strengths

Provide the WISE-IoTSuite platform with flexible deployment to respond to the needs of different fields and industries based on leading technologies such as device intelligence, digital twin, industrial big data analysis, and artificial intelligence. Work with partners to create new value for the IoT industry, and jointly build an open and inclusive ecosystem.

### Responding to Advantech's Co-Creation Strategy

Advantech is committed to promoting the three-stage growth momentum of AIoT with the concept of co-creation. At present, hardware innovation from the first stage and active promotion of IoT platform operation from the second stage, integrated with IT, OT, Cloud, AI and other technologies to create the IoT cloud platform "WISE-IoTSuite", and gradually develop into the third stage of "AIoT solution development and ecosystem expansion" to meet the needs of more domains and provide integrated AIoT networking solutions. To this end, Advantech also invited the internal teams: "WISE-IoTSuite platform development and technology support team and product department" to join industry-academia co-creation to create high-quality application services and build Advantech's ecosystem in the Industrial IoT.

Promotion approach: Connect three main pillars and projects to promote industry-academia co-creation to incubate IoT innovation and talent.

#### AIoT Academy

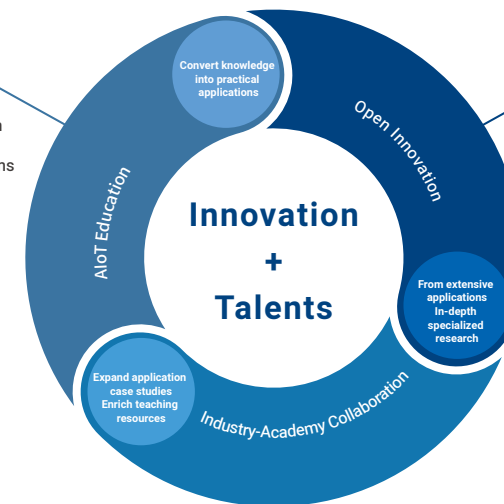
- AIoT online courses
- Teaching plan collaboration with educational institutions
- International certification systems

#### Innoworks

- Provision of industrial resources
- Creativity and the innovative application of IoT
- Global promotion and international exchanges

#### Industrial Project

- Industry-academia collaboration on specialized research for doctoral and master's students
- Establish a long-term industry-academia-research collaboration model by focusing on industry trends



Global Views ESG Corporate Sustainability Award 2023 "Outstanding Program - Education Promotion"

Industry-Academy Collaboration: Aligning education and application, the promotion of a co-creation ecosystem connects schools' research and development capabilities with industry's technological development requirements. This is accomplished through "industry-academic project collaboration," which is then "integrated with corporate internships for graduate and doctoral students," resulting in "industry transfer," further incubates innovation and talents.

### • Joint Research Projects

Advantech's industry-academic collaboration program includes annual thematic collaborations with major universities focused on key IoT development trends. These collaborations seek to bridge the gap between industry practical needs and academic research capabilities in order to promote innovation implementation. Two models, Inside-out and Outside-in, create a positive cycle of industry-academic cooperation.

- **Inside-out:** Corresponds the school's AIoT R&D plan with the internal technology development roadmap. In-depth linkage between market demand and university R&D capabilities with the corporate test-driven model, as well as Advantech's internal and external (customer) field scenarios, to conduct proof of concept (POC) for innovative IoT applications, promoting industry-academia products and the market.
- **Outside-in:** Review university laboratory R&D programs and capabilities with potential for productization, and link external innovation issues with internal capabilities for productization. Development and planning roadmap for internal new products and new technologies with external innovations, which may further become an important source of innovation for new business units developed by the enterprise.

In 2023, nine industry-academic projects were launched, covering key IoT industry technologies such as information and cyber security and cooling. Other projects included factory quality inspection, predictive diagnostics, and AI industrial applications to reduce energy consumption in industrial parks. During the course of these projects, four interns from the industry-academic program worked at Advantech, combining their academic projects with corporate projects to accelerate the commercialization of innovative products. One of these students used the results of the industry-academic project to publish a thesis and become an Advantech-sponsored master's student.

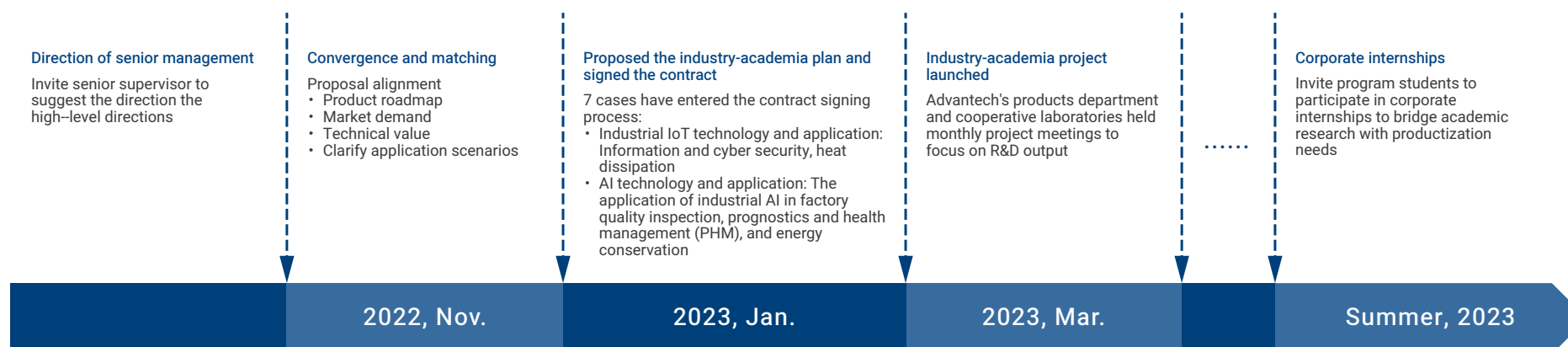
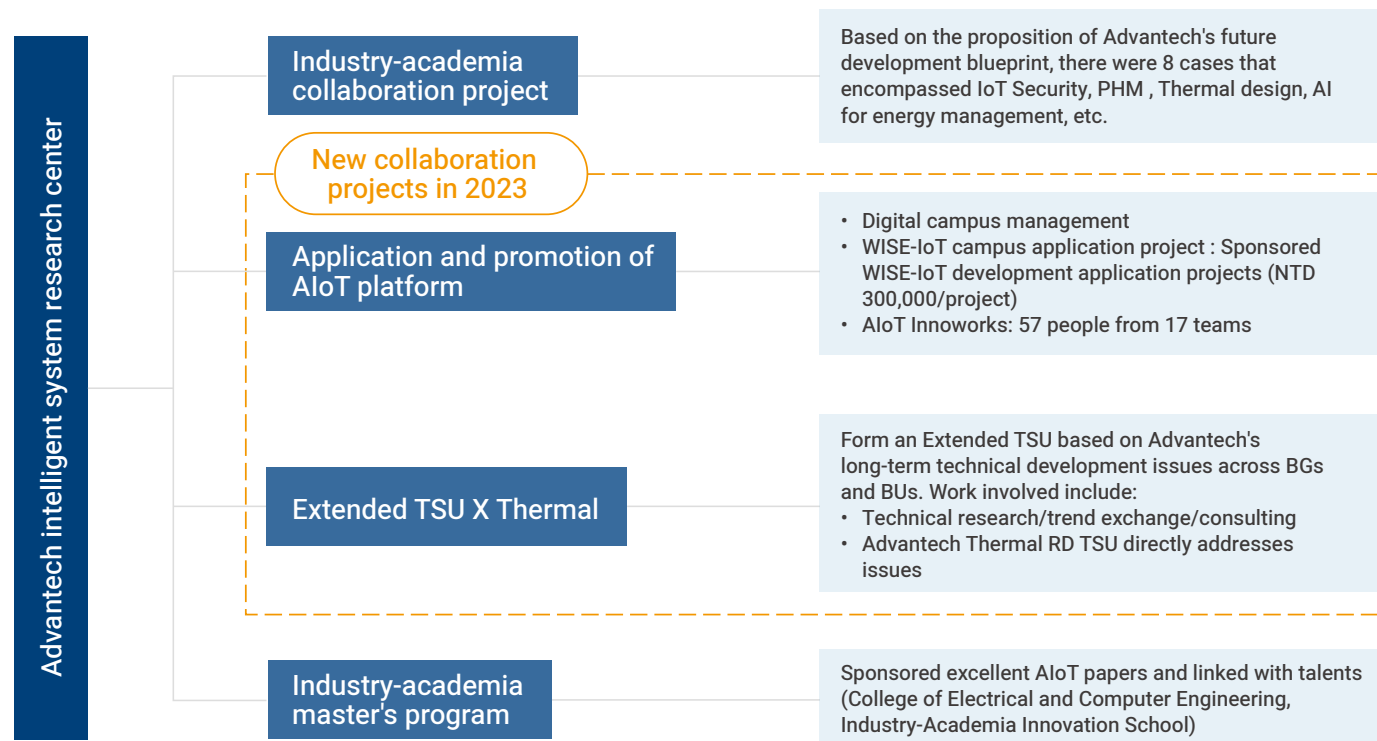


Figure 3.3.2: 2023 Advantech industry-university program implementation process

## • Advantech Intelligent System Research Center

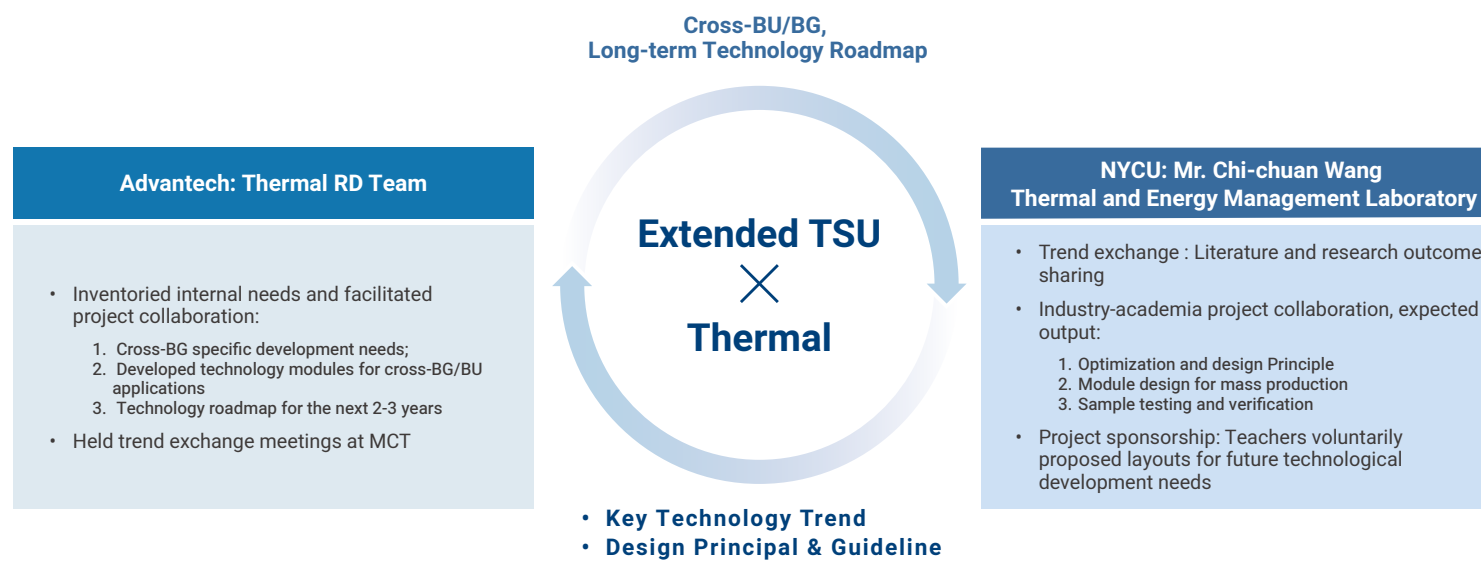
Since Advantech established the Intelligent Systems Research Center at Yang Ming Chiao Tung University in 2015, it has accumulated more than 52 projects. In 2024, for the purpose of innovation incubation and talent cultivation, in addition to the industry-academia collaboration project and industry-master's doctoral program, Advantech added Extended TSU X Thermal (Technology Sharing Unit) and application promotion of AIoT platform.





## Driving Long-Term Technology Innovation: Extended TSU

TSU is Advantech's internal cross-unit R&D organization to address the common technical challenges across product lines and to develop key technical advantages. In the past, it was mainly based on internal technical exchanges. In 2023, Advantech joined the thermal management as a pilot topic and formed the Extended TSU partnership with Professor Chi-Chuan Wang's Thermal and Energy Management Laboratory (National Yang Ming Chiao Tung University). Based on Advantech's long-term cooling module application needs and the Technology roadmap, Advantech collaborated on three cooling technology module development projects, including fanless system heat dissipation in high-power and high-temperature environments, and water-cooling technology research for industrial servers.



\*Members: Eric Liu, William Yeh (SIoT), YC Su (ICVG&IIoT), Steven Yang (EIoT)

Figure 3.3.3: Extended TSU X Thermal Industry-Academia cooperation framework

## Application and Promotion of AIoT Platform

Advantech introduced the WISE-IoTSuite IoT data platform to National Yang Ming Chiao Tung University in 2023 to improve the efficiency of digital campus management, develop more campus IoT innovations, and cultivate IoT talent. For more information, please refer to the Case Highlights: WISE-IoTSuite @NYCU: digital campus management





Case highlights

WISE-IoTSuite@NYCU: digital campus management

In 2024, Advantech introduced the WISE-IoTSuite IoT data platform at National Yang Ming Chiao Tung University for the following purposes:

- Collaborate with leading universities to cultivate digital campus issues, incubate IoT innovation, and cultivate talents continuously.
- Establish a benchmark case for the application of IoT to digital campuses, form a replicable solution model, and explore the potential of the education market.

Currently, the platform introduced at Yang Ming Chiao Tung University is managed by the big data center and is mainly used for the following:

- Digital campus data management: The long-term goal is to establish a digital campus digital twin. In 2023, the first phase of integration of campus static data, sustainable development indicators, and campus energy data was completed.
- Innovative IoT program development: Encourage professors/laboratories to use the WISE-IoTSuite platform for the development of innovative IoT application projects. In 2023, a total of 7 innovative projects will be promoted, including applications such as drone management, industrial energy saving, and campus map guide.
- Innworks X NYCU IoT talent cultivation: In 2023, a total of 57 students from 17 teams participated to cultivate IoT innovation talents through themed development competitions and guidance from business experts. [Link to the press release announcing the results of the National Yang Ming Chiao Tung University digital campus](#)



Figure 3.3.4: Presentation on the results of Advantech's participation in Yang Ming Chiao Tung University's digital campus project




Preliminary application outcome for stage 1			
			
	I. Disclosure of basic school affairs-related information	II. Sustainable development indicators	III. Campus electricity consumption
Data source	College and university school affairs information disclosure platform	THE Impact Ranking indicators, SDG-related courses	Premises electricity consumption, electricity bill, electricity consumption for energy system circuits
Data type	Database	Databases and files	Report files
Dashboard design	5 basic information panels: Student, faculty, finance, research, and school affairs.	<ul style="list-style-type: none"><li>• Sustainable development indicators</li><li>• SDG-related courses offered</li></ul>	<ul style="list-style-type: none"><li>• Circuit electricity consumption</li><li>• Computing-related electricity consumption on the premises</li><li>• Campus electricity bill</li></ul>
Functional applications	Data schedule update	Embed into web pages	Alarm function

Figure 3.3.5: Achievements in the application of Advantech's WISE-IoTSuite platform on Yang Ming Chiao Tung University's digital campus in 2024

### • Open teaching materials and courses AIoT Academy

Domain know-how and cross-industry applications are the keys to nurturing IoT talent. Therefore, Advantech has actively established the AIoT Academy, an online learning platform, and will combine regional certification centers in the future to cultivate key IoT talent and expand into the educational application market. (Refer to Chapter 6 IoT education and industry-academia co-creation for more information on AIoT Academy.)

### • AIoT Innworks Projects

Advantech provides online education and certification resources, an easy-to-use IoT platform, and industry mentor resources to recruit students interested in IoT to form teams to develop innovative IoT applications with Advantech platforms. In addition to cultivating IoT talents, it is easy to explore the potential innovative applications of IoT. (Refer to Chapter 6 IoT education and industry-academia co-creation for more information on AIoT Innworks.)

## 3.4

## Customers and Partners Co-Creation



Material topics	Customers and partners co-creation	
Policy or commitment	<ul style="list-style-type: none"> <li>Considering customers as partners, and operating the market together with customers through a co-creation mechanism.</li> <li>Improve channel distribution management, optimize the global customer relationship management system, and technical service platform, while offering more online training courses.</li> <li>Ensure that customer privacy is fully protected and ensure that customers' rights and interests are not lost during the pandemic.</li> <li>Committed to focus on the development of the IoT industry and continue to invest in IoT platforms and solutions.</li> </ul>	
Impact description	<p>In terms of positive impact, with ecological connection and the spirit of co-creation, Advantech continues to be a smart solution for a sustainable planet with our industry strengths. In terms of society, IoT is used in telemedicine and healthcare to reduce medical costs and improve medical precision. In terms of economy, the improvement of the efficiency and performance of production activities and the application of AI technology can greatly enhance the level of industrial production. In terms of the environment, equipment monitoring and the deployment of a large number of sensing components will effectively reduce energy consumption and environmental pollution. In recent years, due to the development of alternative energy, Advantech has also ventured into the business of charging piles and alternative energy. Collaborate with customers and ecosystem partners to achieve sustainability in various fields.</p> <p>The potential negative impact of this issue is non-tangible damage to Advantech's brand image and goodwill. Faced with this negative impact, Advantech has taken remedial measures to re-examine Advantech's core capabilities, reduce information asymmetry, and ensure that important partners acquiring accurate information at the right time.</p>	
2023 Goals achievement status	Distribution authorization management	
	<ul style="list-style-type: none"> <li>Overall performance of global distribution channels increased by 3%. The number of premium distribution partners accounts for more than 20% of the total.</li> <li>The sales performance of the distribution channel decreased by 16%, mainly due to the slowdown of market growth and dealer inventory adjustment amid global policy uncertainties.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved: The number of dealers with premium distribution partners accounted for 21% of the total.</li> </ul>
	<ul style="list-style-type: none"> <li>Expand the online training certification project. In addition to emerging countries, we also promote the introduction of courses to Japan and South Korea, providing local language courses and invite more partners to join.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved: In 2023, a total of 13 distribution partners in emerging countries will complete the courses and pass the assessment. The localization courses in Korea have been launched online, the basic courses in Japan have been completed, and the advanced courses have been introduced in stages.</li> </ul>
	<ul style="list-style-type: none"> <li>The Company held 4 World Partner Conferences (WPC), inviting nearly 4,000 customers and partners to provide more detailed product contents, solutions, and application cases, with the vision of jointly building a model in the IoT industry.</li> </ul>	<ul style="list-style-type: none"> <li>Achieved: More than 4 Advantech global partner conferences were held, attracting more than 6,500 Advantech customers and partners from 60 countries.</li> </ul>

Message from the Leaders	Sustainability Vision and Goals	Corporate Management and Governance	Innovation and Services	Green Operations	Talent and Employee Relations	Altruism and Social Welfare	Appendix
2023 Goals achievement status	Customer connection experience						
	<ul style="list-style-type: none"> <li>Customer satisfaction goals: Revenue from sampled customers accounted at least 60% of total revenue, and customer satisfaction score was average more than 90 points.</li> <li>Achieved: 68,748 pieces of customer feedback were collected on the official website and customer portals, with an average satisfaction rate of 4.03 points and a satisfaction rate of more than 3 points, about 99%.</li> <li>Achieved: Revenue from sampled customers accounted for 76.73% of total revenue, and customer satisfaction score was 93.16 points.</li> </ul>						
	<ul style="list-style-type: none"> <li>Achieved: 68,748 pieces of customer feedback were collected on the official website and customer portals, with an average satisfaction rate of 4.03 points and a satisfaction rate of more than 3 points, about 99%.</li> </ul>						
2024 Goals	Digital service upgrade						
	<ul style="list-style-type: none"> <li>Introduced the cloud customer relationship management system to the Japan branch and the Korea branch.</li> <li>The marketing automation system has shifted from the system platform developed locally to the application in the cloud.</li> <li>Achieved: Japan, Korea, and Brazil offices had implemented Salesforce Sale Cloud by 2023.</li> </ul>						
	<ul style="list-style-type: none"> <li>Achieved: The project registration module 2.0 was introduced into the European market in 2023 to synchronize complete CRM data in real time to further break down data silos.</li> <li>Improve the Salesforce platform information and cyber security risk score by nearly 20% to effectively prevent phishing, credential stuffing, and account infringement attacks.</li> </ul>						
2025 Goals	<p>Distribution authorization management goals:</p> <ul style="list-style-type: none"> <li>The overall revenue of global distribution channels will continue to expand, and the goal is to achieve a total performance growth of 14%.</li> <li>Develop "preferred distribution partners" and "industry exclusive distribution partners", which together account for more than 40% of the overall total.</li> <li>Organize more than 5 to 10 sessions of the Sector Focused Partner Conference at home and abroad, with over 100 customers and partners expected to be invited to each session.</li> </ul>						
	<p>Customer connection experience goals:</p> <ul style="list-style-type: none"> <li>2024 The satisfaction target collected from the official website and customer portals is 4.05 points or above.</li> <li>Over 3,000 views of the A-Connect replay in 2024.</li> </ul>						
	<p>Customer satisfaction goals:</p> <p>Revenue from sampled customers accounted at least 78% of total revenue, and customer satisfaction score is average more than 93 points.</p>						
2025 Goals	<p>Digital service upgrade goals:</p> <ul style="list-style-type: none"> <li>Integrate the customer relationship management systems of the headquarters and North America to improve business efficiency and achieve consistent management.</li> <li>Launched the Salesforce PRM operation plan with designated European partners to provide a brand-new customer experience and advanced partner management mechanisms, including customer e-contract signing with DocuSign, product and marketing information search, project registration and rebate mechanisms. It is expected to cultivate potential business opportunities and improve communication efficiency with key partners to replace email operations. And the rebate mechanism is expected to enrich the data of downstream CRM customers.</li> <li>Implemented Salesforce Sales Cloud for the Mexico branch to enhance customer data security and privacy protection.</li> </ul>						
	<p>Distribution authorization management</p> <ul style="list-style-type: none"> <li>Develop "preferred distribution partners" and "industry exclusive distribution partners", which together account for more than 50% of the overall number, and have achieved a compound annual growth rate of more than 10% for two years.</li> <li>Expand the online training and certification project. There are more than 100 distribution partners worldwide, with more than 500 employees completing the exclusive training and certification courses.</li> </ul>						
	<p>Customer Satisfaction Target:</p> <ul style="list-style-type: none"> <li>The sampled customers' revenue accounts for more than 80% of total receivables, and the average customer satisfaction score is above 93 points.</li> </ul>						



2025 Goals	<p>Eco partner management</p> <ul style="list-style-type: none"> <li>• WISE-Marketplace is an industrial interconnection ecosystem platform powered by empowerment. It offers business platforms and industry solutions, and over 100 industrial apps for activation by Advantech and partners.</li> <li>• Registered with more than 100 industry application solution partners on the digital course platform and completed exclusive training and certification courses.</li> <li>• Supported the success of more than 300 Domain Focus S/I companies, and facilitated 10 listed or to be listed Domain Focus SI companies' significant growth in market value.</li> <li>• Domain Focus SI The company's market value has grown significantly</li> </ul> <p>Digital service upgrade</p> <ul style="list-style-type: none"> <li>• With the Salesforce platform as the core hub, we promote cloud-based customer relationship management systems that cover more than 85% of overseas branches and drive the connection of Advantech's five other cloud platforms (quotation cloud, partnership management cloud, marketing automation cloud, e-commerce cloud and data cloud).</li> <li>• Implemented Salesforce PRM in Europe and provided 70% of our partners with a brand-new customer experience, including customer electronic contract DocuSign signing, product and marketing information search, project registration and rebate mechanism.</li> </ul>
2030 Goals	<p>Distribution authorization management:</p> <ul style="list-style-type: none"> <li>• The overall revenue of global distribution channels will continue to expand. The goal is to exceed US\$700 million, with a CAGR of more than 10%. We will focus on developing distribution partners and premium distribution partners of industries and targeting areas, both of which contribute more than 50% of the revenue and the volume.</li> </ul> <p>Customer satisfaction:</p> <ul style="list-style-type: none"> <li>• Revenue from sampled customers accounted at least 85% of total revenue, and customer satisfaction score is average more than 93 points.</li> </ul> <p>Digital service upgrade:</p> <ul style="list-style-type: none"> <li>• The remote work mode supported by the Salesforce cloud platform not only enhances work flexibility and employee satisfaction, but also greatly reduces the carbon footprint of employee commuting and office energy consumption, it is expected to reduce carbon emissions by 30%.</li> <li>• Implementing Salesforce's digital supply chain solution is expected to achieve at least 20% efficiency improvement in aspects such as order processing time, inventory management efficiency, and supply chain transparency, which can not only reduce operating costs but also improve customer satisfaction by 10%.</li> </ul>
Key actions or programs	<p>Distribution authorization management:</p> <ul style="list-style-type: none"> <li>• Advantech's distribution channel management involves setting up product licensing, technical training, and marketing activities based on the differentiated development of distributor types, as well as sales performance evaluation, market development, talent development, technical training, strategies, and management systems. <ol style="list-style-type: none"> <li>1. Ensure that dealers provide high-quality services.</li> <li>2. Sales performance indicators (annual performance targets, target market KPIs)</li> <li>3. Marketing and market development (marketing activity plan, development of industry-specific channels)</li> <li>4. Organizational talent development (talent development incentive mechanism, brand service team establishment)</li> <li>5. Technical certification training (product and application courses, quality awareness, and standard operating procedures)</li> <li>6. Direction of strategic development (annual business plan, hierarchical price management, inventory stocking mechanism)</li> <li>7. Management system compliance (project reporting, conflict and non-compliance management)</li> </ol> </li> </ul> <p>Digital service upgrade:</p> <ul style="list-style-type: none"> <li>• The HQ and North America Salesforce merger project encompasses technological assessments, data migration, system configuration, and user training, and is anticipated to be concluded in May, 2024. It's to improve the efficiency of cross-regional business collaboration and achieve data sharing and business process integration and standardization.</li> <li>• Provide European partners with a one-stop product and marketing information search platform, as well as the development of project registration and rebate mechanisms, committed to providing partners with a more convenient and more efficient collaborative experience, thereby enhancing customer satisfaction and sales effectiveness.</li> </ul>

Key actions or programs	<p>Customer satisfaction:</p> <ul style="list-style-type: none"> <li>• In 2023, the scope of delivery was expanded from previously the top 80% of customers to all customers in China, North America, Europe, and Taiwan. At the same time, we also requested sales to provide a list of cooperative customers.</li> <li>• In 2024, we will maintain the customers satisfaction survey in China, North America, Europe, and Taiwan, and increase the satisfaction survey in Japan at the same time.</li> </ul>
Effectiveness assessment	<p>Distribution authorization management:</p> <ul style="list-style-type: none"> <li>• Implement the Channel BLM, formulate the annual distribution business plan (Channel ABP) together with distribution partners, and provide quantitative and qualitative evaluation indicators (performance, marketing, technical training, internal control, etc. total 18 indicators) every quarter to review implementation effectiveness, provide comprehensive resources and training, promote channel performance growth and partner development, and achieve stable and long-term development of distribution channels.</li> </ul> <p>Digital service upgrade:</p> <ul style="list-style-type: none"> <li>• The cases and success stories of B2B customers in collaboration with Salesforce are disclosed on the Salesforce global website. To specifically demonstrate how Advantech uses the Salesforce platform to bring business value and cloud-based experience, and showcase the Company's experience in digital transformation to the world. Making customers, partners, and distribution channels understand Advantech's efficient cloud platform system deployment.</li> </ul> <p>Customer satisfaction:</p> <ul style="list-style-type: none"> <li>• Based on the questionnaires filled out by customers in each region, customers' dissatisfaction or suggestions are reported back to the responsible sales person in each region. Then Advantech would make corresponding responses.</li> </ul>
Stakeholder engagement	<p>Advantech will continue to collect, monitor, and respond to the suggestions of key stakeholders, customers, and partners through existing communication channels. This topic has not yet caused any major negative impact on stakeholders or the environment, economy, or society. Therefore, no remedial measures were taken</p>



### 3.4.1 Co-creation with Customers and Partners

Advantech's 2023 customer management and partner co-creation activities are based on the principles of "altruistic cooperation and mutual benefit" and "digital service upgrade." The Company is committed to deepening customer connection experience, expanding ecosystem partner operations, and institutionalizing distribution authorization management. At the same time, we will optimize digital platforms such as customer relationship management systems and online technical services to improve operational and service efficiency.

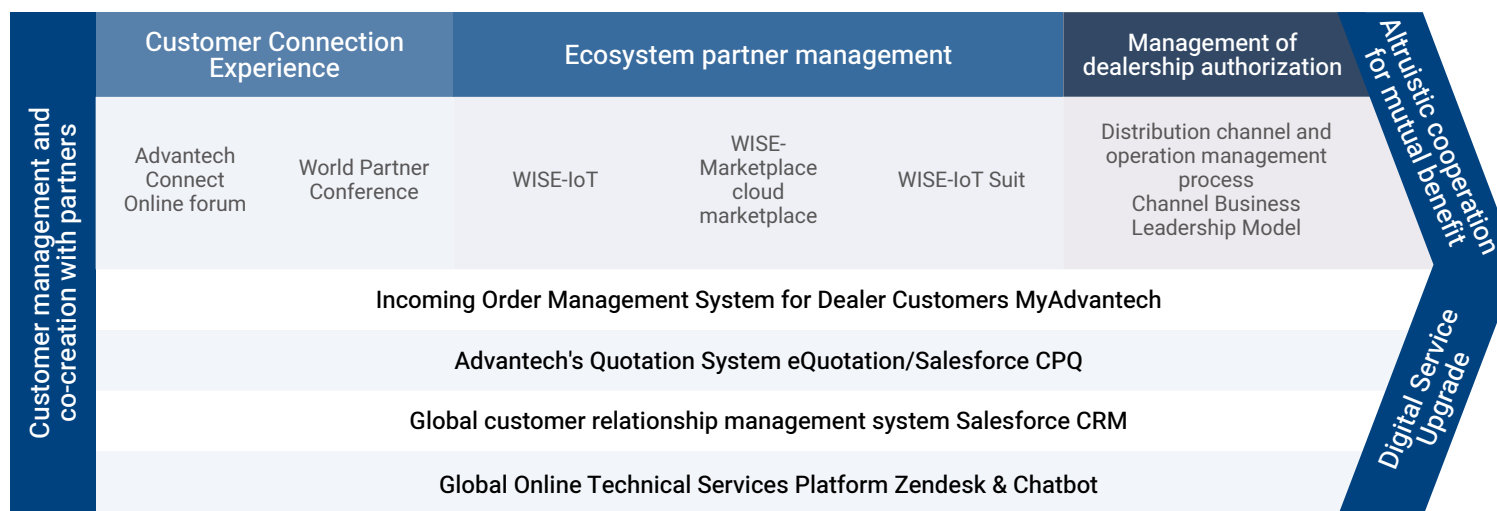


Figure 3.4.1: Advantech's 2023 Customer management and partner co-creation highlights

#### Customer connection experience

##### Advantech's 40<sup>th</sup> Anniversary World Partner Conference (WPC)

Since 2010, Advantech's corporate brand vision of "Enabling an intelligent planet" was initiated, and had also begun to build Taiwan's first IoT experience park in 2014, dedicated to the formation and development of IIoT, cloud platforms, and various ecosystems. Advantech's AIoT Co-creation Park completed its first phase in 2014 and served as the headquarters for the embedded IoT platform business group. After the second phase was completed in 2016, it became the manufacturing center of Advantech headquarters, and the production volume of Taiwan can be integrated here. The final phase of construction was completed in 2023. Advantech positioned the building as the headquarters for the IoT Business Groups, offices for co-creation partners, and a recreational area for employees.

As 2023 coincides with Advantech's 40th anniversary, Advantech hoped that this co-creation park is not only become Advantech's global IIoT center but also create Taiwan's IIoT ecosystem clustering benefits and become a model example. In 2023, Advantech held three Industry Partner Summits with eight major themes: smart factories, smart devices, embedded edge computing and emerging industrial applications, smart healthcare, smart transportation and logistics, smart retail, iEMS intelligent energy management and conservation, and IoTMart, a global IoT cross-border e-commerce platform. Global customer partners were invited to attend the unveiling of the Advantech AIoT Smart Co-Creation Park and understand its strategic significance. These events provided an opportunity to share insights and discuss future collaborations in the AIoT space.

Customer and partner topic  
discussion

Global IIoT partner conference

Edge Evolution - Shaping the Future of Embedded and Emerging /  
Partnering from Edge to Cloud Solutions Feature Forum

Business



## Ecosystem Co-Creation

The Internet of Things is a market where multiple industries are integrated. Advantech upholds the concept of co-creation and co-prosperity with partners to create industry ecological partners with the IoT platform and core products, enabling small and medium-sized system integrators, traditional automation system integrators, and cloud platform system service providers and enter the IoT industry through this platform, where ecological partners and Advantech work together to expand the market.

- Co-creation with partners

Through investment in external funds, we support start-up companies in Taiwan, China, Europe, and the United States, with the aim of forming a complete IoT ecosystem in these key regions. The annual support plan is detailed in the table below:



Advantech worked with experienced fund partners in the IoT industry to accelerate the development of international ecosystems. We invested in startups via AIoT Ecosystem fund and connected fund partners with our industry expertise, technical platforms, and market networks to accelerate the development of IoT ecosystems in key regions.

Ecosystem fund investment (overseas ecosystem deployment)			
Fund partners	Fund investment scale	Investment fields	Investment efficiency
Momenta (Europe, America)	USD 30 million	AIoT, smart manufacturing, intelligent energy management, edge computing, AI, information and cyber security	In view of the fragmentation of the Industrial IoT, it is necessary to establish an industrial ecological chain in the above investment fields. Therefore, Advantech and Momenta Ventures jointly launched the AIoT Ecosystem Fund focusing on Europe and America. Through venture capital investment in digital industry startups in the fields of AI and IIoT. Advantech had also responded to the sustainable development goals (SDGs) in its field, which has a far-reaching and positive influence on Advantech.
Ying Capital Capital (China)	RMB 200 million	Industrial control security, IoT security, smart 5G mines, energy service integrators, energy storage system providers	
Esquarre Capital (Global)	USD 25 million	IoT, New Energy	

In addition to capital collaboration, Advantech worked with incubators and accelerators to provide enterprise technology platforms, industry connections, and co-creation funding sponsorship to early-stage startups that have not yet scaled their products or market performance. This is intended to accelerate the development of startups in the growth stage.

Table 3.4.1: The list of Advantech's support plan for AIoT startups in 2023

Sponsorships for incubators, accelerators, and IoT innovation events			
Sponsored organization	Areas of support	Investment amount	Sponsorship benefits
Asia America Multi-Technology Association (AAMA)	Smart manufacturing, smart healthcare, smart environmental protection, smart logistics	NTD 2 million	Cooperated with Chunghwa Telecom and SYSTEX Corporation, recruited a total of 13 startups through industry propositions and counseling, and formed 8 co-creation and cooperation projects.
Garage+	IIoT and Industrial AI Applications	NTD 700,000	Gathered product supervisors from Advantech and over 10 domestic and foreign start-ups to exchange industry experience and explore co-creation opportunities.
Pan WenYuan IoT Innovation Application Award	IIoT	NTD 1.2 million	A total of 12 start-up teams/school teams with IoT applications were recruited, and innovative teams for agricultural applications of IoT were actually selected to provide bonuses and industrial experts to achieve practical guidance on the industrial application of the technology.
IMV ESG Technology Innovation Proposal Competition	Energy conservation, agriculture, forestry, fish, animal husbandry	NTD 2 million	Formed an alliance with seven industry partners to support sustainable startups and teams in Taiwan. A total of 92 teams were recruited, and the 18 teams were eventually awarded the prize. <ul style="list-style-type: none"> <li>Organized 26 corporate counseling meetings</li> <li>Practically assisted 1 start-up company in developing new businesses and successfully raised funds.</li> </ul>

The application of IoT in the market is divergent and fragmented, and as a result, it is full of opportunities for innovative application, and start-ups are at the forefront of exploring and implementing emerging business opportunities. By collaborating with startups to develop emerging solutions, Advantech hopes to jointly expand into emerging applications and markets.

Support for startups (co-creation of innovative IoT solutions and markets)			
Co-creation partners	Investment amount (USD)	Co-creation solutions	Benefits
Encorem (Malaysia)	1.7M	AIoT Solutions for outpatient appointment, scheduling, and telemedicine.	Expand the intelligent healthcare market.
Expetech (Taiwan)	1.2M	Smart warehousing and smart manufacturing solutions	Accelerate the industrialization of corporate technology and promote the formation of new IoT businesses.

## WISE-IoT

WISE-IoT is Advantech's newly established IoT cloud platform business unit, which represents an important step for Advantech in digital transformation. By leveraging the core services of WISE-IoTSuite, an upgraded version of WISE-PaaS, Advantech's cloud-native IoT platform can be deployed on standalone servers, private clouds, and public clouds (AWS, Azure, and Alibaba) to develop situational solutions in various domains, which focuses on five major domains: smart internet-connected equipment, smart factory, smart energy saving, smart retailing, and smart healthcare.

In 2023, we began to expand to Southeast Asia, and the diversity of partners has gradually improved, not only including CP (channel partners), VAD (value-added sales partners), and DFSI (field-based SI partners), but also reinforced cooperative relationships, such as serving customers together, joint product development, industry entry into specific fields, and strategic investments initiative. There are also consulting partners based on the development of the industry to enter the global energy-saving field market, etc. In 2023, about 160 partners continued to have in-depth cooperation with WISE-IoT to build a stronger business ecosystem for WISE-IoT.

## WISE-IoTSuite

Advantech's WISE-IoTSuite platform provides data-driven tools for developing diverse applications, including equipment connection management, Digital Twin asset performance management, big data integration and analysis, 2D/3D visualization, business intelligence, and generative AI assistant services. Users can easily develop and manage industrial applications with zero/low-code to accelerate digital transformation. WISE-IoTSuite provides secure and trusted services, efficient data processing with an open architecture, and enhanced delivery efficiency; based on WISE-IoTSuite, Advantech offers diversified solutions, including smart manufacturing, energy and carbon management, equipment operation and maintenance and smart park management. WISE-IoT Suite provides system integrators with a device-to-cloud integrated delivery engine and end-users with a secure and reliable digital platform to enhance their competitiveness and sustainability.



## WISE-Marketplace

WISE-Marketplace is an end-to-cloud solution platform for IIoT that provides rich solution introduction, simple purchase and transaction processes, hybrid cloud remote deployment compatible with connection scenarios, open and flexible capacity expansion, focusing on including more than 100 selected industrial apps, as well as related education and training courses, certifications, and engineering support for the smart factory, smart energy management, smart device, smart healthcare, and Smart retail vertical industry. At the same time, to help customers accelerate digital transformation, the WISE-Marketplace assist system integrators and channel partners of different fields in co-marketing and establish the on-shelf mechanism for software developers to jointly create a prosperous industrial ecosystem.



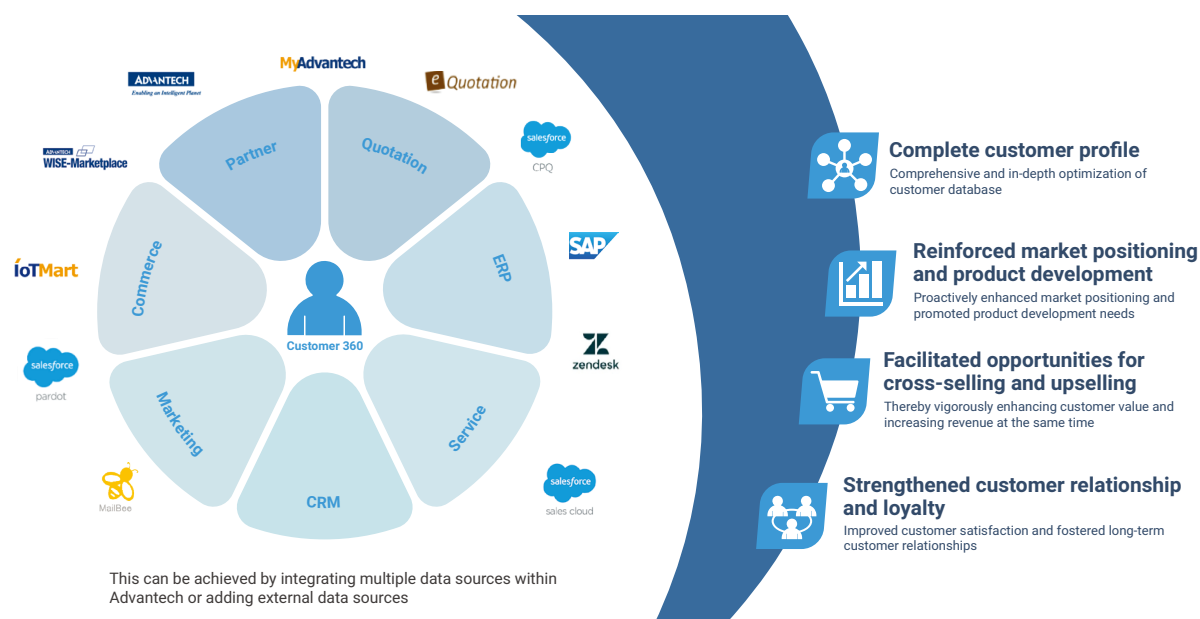
## 3.4.2 Customer Relationships, Distributors, and Channel Management

### Global Customer Relationship Management System

Advantech's Salesforce Sales Cloud digital transformation has successfully expanded to the United States, Europe, Taiwan, Middle East, Africa, Latin America, Japan, Korea, and Brazil. It is expected that we will further integrate the Salesforce system to realize the vision of ONE Advantech in 2024.

CRM is the cornerstone of our business and customer service. To grasp customer needs in a timely manner and provide comprehensive services, we build Advantech Customer 360 with the flexible Salesforce framework to improve the customer profile and promote cross-selling and up-selling opportunities.

Data security is also Advantech's top priority. We have comprehensively upgraded the Salesforce security level, increasing the security baseline by nearly 20% to effectively prevent phishing, credential stuffing, and account infringement attacks, thereby ensuring the information security of Advantech and its customers total protection.



### Dealer Management Platform - MyAdvantech

MyAdvantech provides important global partners with comprehensive customer relationship management and one-stop order purchasing process. In 2023, we introduced the project registration module 2.0 to the European market to provide complete business opportunity information and real-time data synchronization to break down data silos and accelerate operational convenience. It brought a 28% increase in the amount of business opportunities, then the product was introduced into China, the United States and other markets in order. In addition, the team had been working on the Salesforce PRM cloud migration preparation plan since 2023 to effectively enhance the stability of the platform, such as the real-time data connection and information security assurance. Simultaneously provide a brand-new customer experience, including the internal signing mechanism for client's electronic contracts and DocuSign signing, product and marketing information search, and the project registration and rebate mechanism. Advantech will continue to build strong brand trust and reputation with flexible and agile digital solutions.

Online customers

	2020	2021	2022	2023
% of total customers using your online services solutions/sales platform	18.0	22.0	23.66	27.9

\*Note: The target for 2023 is 25.5%.

Online revenues

	2020	2021	2022	2023
% of revenues generated online (e.g. through direct sales, advertising, etc.)	21.3	37.0	18.4	14.8

\*Note: The target for 2023 is 16.6%.

### 3.4.3 Customer Satisfaction Survey and Customer Audit

#### Customer Satisfaction Survey

In 2023, Advantech conducted a customer satisfaction survey on customers with sales orders in each region from the five dimensions of TQRDC. (TQRDC: Technology, Quality, Responsiveness, Delivery, Cost) The number of each region was 2,906 in China, 4,901 in North America, 2,891 in Europe, and 3,894 in Taiwan, total 14,592 customers.

The PDCA tool was used to analyze the items with the lowest average value this year: AE technical service quality. Customers expect to have prototypes to be turned around in case of defects and rapid technical support. According to the needs of customers in each region, continuous improvement had been carried out through internal discussions to meet customer expectations.



Year	2019	2020	2021	2022	2023
Satisfaction (score)	94.59	95.16	94.83	92.66	93.16
Revenue from sampled customers as a percentage of total revenue (%)	16.80	16.98	17.45	60.76	76.73

\*Note: Statistics on the percentage of revenue are based on the revenue from January to November of each year.

Customer satisfaction survey score and coverage 2019-2023

Item	Sales service and pricing	Delivery efficiency	Product quality	Technical service	After-sales service
Average score (out of 5 points)	4.70	4.68	4.72	4.52	4.60
Satisfaction (%)	93.92	93.60	94.47	90.35	92.05

Future goals: Increase the coverage of customer satisfaction surveys year by year and maintain an average satisfaction score of more than 90 points.

2023 Customer satisfaction survey scores



## Official Website and Customer Portal Satisfaction

Advantech's customer digital portal satisfaction survey is a satisfaction survey designed by the official website at the customer journey node, and is investigated and collected on a five-point satisfaction scale. For satisfaction scores below 3 points, customers were asked to leave improvement suggestions or assistance, we proposed an improvement plan and have the business unit track the improvement, with a view to completing the improvement within the specified time.

In 2023, customer digital portal satisfaction survey, a total of 68,748 pieces of customer feedback were collected on the official website. The average satisfaction rate was 4.03 points, and about 99% reached more than 3 points. We will continue to optimize the digital portal experience to provide customers with a better online experience.

## 3.4.4 Customer Service

### Global Online Technical Service Platform

In 2023, Advantech's technical service teams in Japan, Korea, and Taiwan completed the implementation of the cloud technology service management platform, Zendesk, enabling faster responses to customers for cross-border collaboration in Asia Pacific. The customer portal was launched in October of the same year for customers to check the progress of the service and cases at any time, significantly increasing the convenience for customers. The system also provided considerable help in assisting in the analysis of work order request information. It was observed that 43% of the requests for online support could be resolved by chatbots (Figure 3.4.4.2). A total of 114,757 technical service requests were closed in 2023, a 30% increase over last year, and the closure rate was 98%. In 2024, Advantech will focus on optimizing the RMA product maintenance department process in Europe, America, Japan and Korea. While introducing this platform, we will also enhance the customer experience and eliminate worries about after-sales service.

Advantech has continued to develop its chatbot service. In addition to introducing the service to Europe and Southeast Asia and guiding customers to self-help for support around the clock. We are also actively developing the application of Gen AI to provide Advantech product information and suggestions for solutions in the unmanned chatbot, which are expected to be implemented in the first half of 2024.



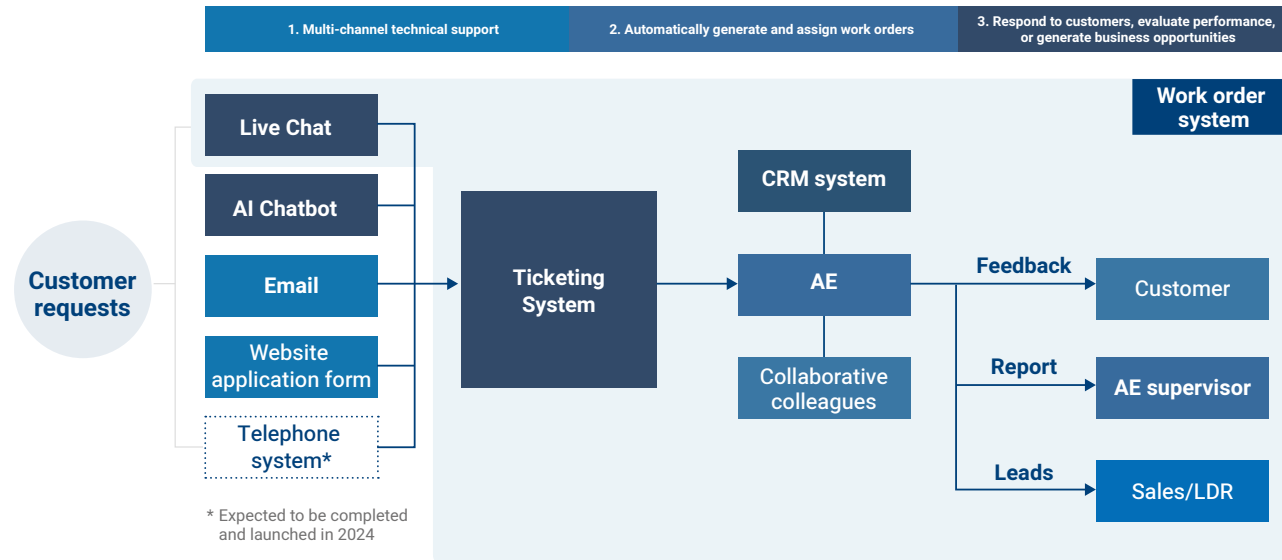
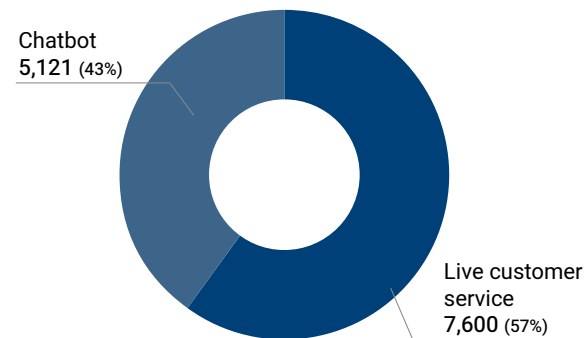


Figure 3.4.4.1: Advantech online technical service process

### 43% Customer requests can be handled by chatbots



\* Areas where robots have already been introduced: North America, Europe, Southeast Asia, and emerging markets Analysis of online conversations in 2023.

Figure 3.4.4.2: Analysis of online conversations