My**Advantech**

Digital Transformation and ESG 2022–2023

Into the Future with Digital Transformation and ESG

ADVANTECH BEAUTIFUL LIFE

Dedication to Corporate Social Responsibility

SUSTAINABLE APPLICATIONS

Utilizing IoT Applications to Advance ESG

DIGITAL TRANSFORMATION

Realizing Advantech's Sustainable Vision with Global Digital Operations

ADVANTECH

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Into the Next Decade with a Focus on Digital Transformation and ESG

In recent years, the global economy and international trade have had to face tremendous uncertainty. This has created significant challenges for business operations. However, despite the drastic changes in the overall environment, Advantech is still moving steadily toward its 40th anniversary with mindful optimism.

Advantech has been able to constantly develop thanks to its long-standing commitment to digital transformation and CSR. Based on this rock-solid foundation, Advantech is advancing into the next decade with a renewed focus on these commitments. Its implementation of environmental, social, and governance (ESG) policy serves as a continuation of its CSR endeavors.

In 2021, Advantech Chairman KC Liu identified digital transformation as a top priority for the company's development toward 2025. He therefore established a new Chief Strategic Officer (CSO) position to promote digital transformation within the organization's internal operations. This has delivered concrete results in supply chains, e-commerce, smart factory upgrades, agile product design, and many other aspects. To further bolster the momentum needed for

transformation, Advantech will focus on HR, EC, and SCM in the future.

To fully comply with ESG concepts, Mr. Liu has repeatedly used trees as an analogy, stating that a company is like a tree that can eventually grow into a full forest. ESG enables the development of a strong trunk and growth that can support the enterprise's operations, as well as innumerable branches and leaves that can produce abundant fruits and nourish the earth. Consequently, Advantech believes that by promoting ESG, outstanding things can be achieved. Employees of Advantech in various regional markets worldwide must also fulfill their mission in order to contribute to the company's ESG goals and make Advantech an enabler of a sustainable planet and a harmonious society.

After establishing the dual strategies of digital transformation and ESG, Advantech will continue to engage with more partners around the world to move forward intelligently and accelerate the corporate vision of "Enabling an Intelligent Planet". Together, we celebrate Advantech's 40th anniversary and look forward to a new growth curve in the next decade. ∎

Realizing Advantech's Sustainable Vision with Global Digital Operations

Advantech launched a new round of digital transformation to create agile operations that help realize their global digital targets by 2025.

Photos provided by Advantech
Interview with Jeff Cheng, Ph.D., Manager, CSO Office of Advantech

Global companies have initiated a new round of digital transformation to cope with the myriad impacts of the Covid-19 pandemic. Indeed, Advantech has helped its business partners develop intelligent solutions and promote digital transformation since the beginning of the outbreak. This was achieved by utilizing IoT technology to facilitate an operational transformation, creating a new digital operating model.

Jeff Cheng, Manager at Advantech's CSO Office, pointed out, "This digital transformation is not merely an effort to replace old systems with new ones. It is a transformative project that includes deep operational management changes." One of Advantech's five primary visions looking forward to 2025 is global digital operations. This entails driving sustainable operations by establishing agile and innovative processes through digital transformation while optimizing employee and customer experiences.

Dedicated execution guiding top-to-bottom transformation

Comprehensive digital transformation presents numerous challenges. To smooth this process, Advantech established the Chief Strategic Officer(CSO) Office — driven by the chairman — to establish guidelines for bringing the digital world into the company's primary operations and realizing a fully connected and intelligent version of Advantech.

The CSO Office proposed five primary aspects to this implementation: production, sales, human resources, R&D, and finance. Each relevant department takes stock of its needs and plans executable projects aimed at digital operation. This endeavor resulted in the proposal of 16 projects via an iterative method and incremental build model. These projects included the iFactory two-way query platform for supply chain orders and materials; the IoT-Mart cross-border e-commerce platform, and the A-Connect audiovisual platform. All of these projects served as the pilot stage of Advantech's digital transformation.

According to Dr. Cheng, during the first year of implementation, the CSO Office reviewed results monthly, providing suggestions and making constant adjustments to optimize the path to transformation. To date, many projects have shown concrete results. For example, material management was not sufficiently digitalized in the past. Each division had to send emails or place phone calls to expedite materials. Now, the system can clearly and instantly display parts inventory statuses on a dashboard. Indeed, management can now view material inventory

data at a glance and perform back-end actions to connect with upstream suppliers or R&D personnel directly. Customer experiences have also been optimized via a new IoT Mart e-commerce platform that optimized the online shopping process.

Refocusing on HR, EC, and SCM to condense transformation energies

A year of cooperation with Professor Chun Yao Huang from National Taiwan University and the promotion of digital transformation has produced pilot study project results. These results have helped form Advantech's complete digital transformation development blueprint. From 2022 onward, emphasis will be placed on strategic planning to achieve long-term goals, and the projects discussed above. These will converge into three critical directions: global EC, SCM, and HR digital transformation.

Amongst these, HR will utilize a new human capital management (HCM) system as the basis for comprehensively driving overall HR management transformation. Dr. Cheng posits that the HCM system is merely a tool. Adding, "We will start with users' needs to realize HR's digital transformation goals. This will include designing in-depth personal experiences for general employees, HR personnel, and management; establishing an agile management culture; and strengthening data-driven decision-making to enhance Advantech's talent cultivation and retention." Indeed, this new HCM system will help new employees quickly integrate into the corporate culture and foresee future career development trajectories more clearly.

Advantech understands that digital transformation is an ongoing process. This new round of digital transformation is set to create new growth for Advantech in the coming decade. ■

Digital Transformation (DX) at Advantech

- Manufacturing Operations
- Sales and Marketing
- Human Resources
- Research and Development
- Finance and Accounting

World Class HCM Phase-In
Core HCM, Talent & Recruiting

Sales Force Automation & IoT Mart eCommerce
SFDC commerce deployment

SCM Optimization
Biz & Strategic Focus, Fulfillment & Efficiency Focus

2022~
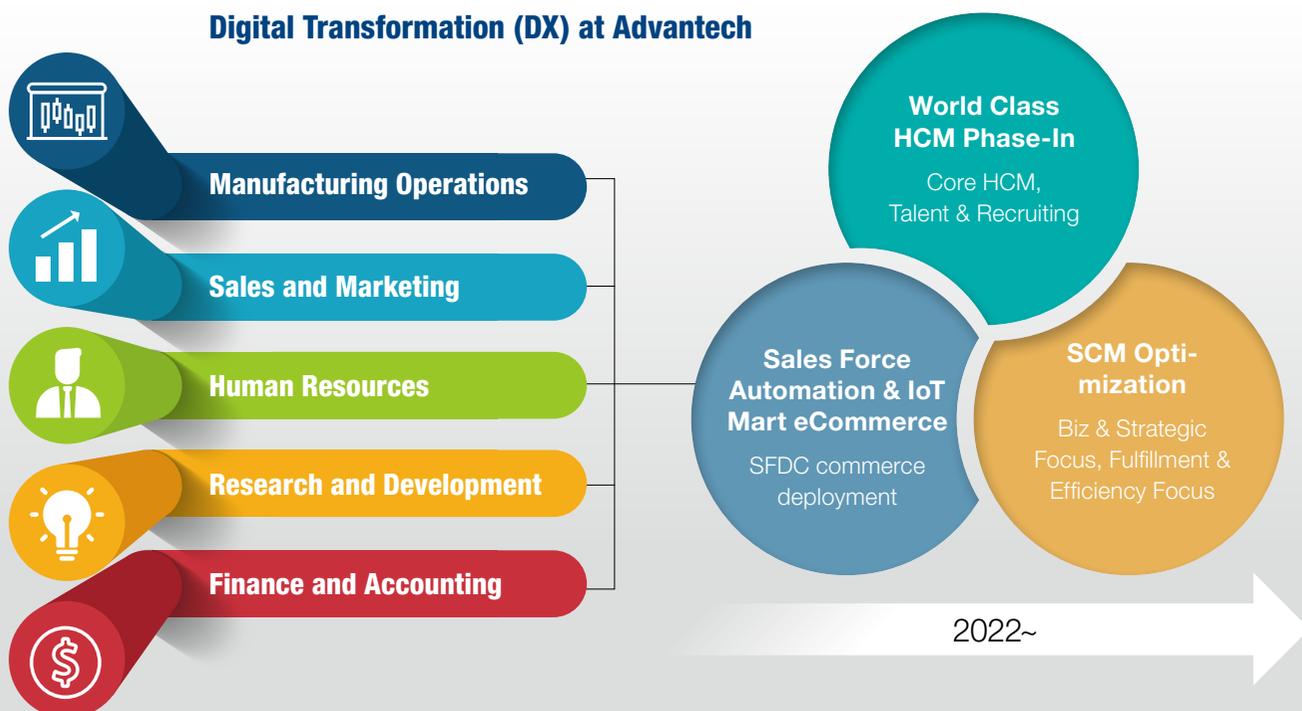
The World's First AIoT Live Webinar and On-demand Video Platform: Advantech Connect

A-Connect
video platform

The Advantech Connect (A-Connect) audiovisual platform lists 15 popular channels in the AIoT industry as solution playlists. It is dedicated to becoming the largest streaming platform for the AIoT industry and realizing Advantech's vision of an intelligent planet.

Photos provided by Advantech
Interview with Sindy Lin, Marketing Director, Industrial-IoT Group of Advantech; Franny Yeh, Project Assistant Manager, Embedded-IoT Group of Advantech

The COVID-19 pandemic has pushed the world towards increased digitalization. This drive — by either individuals and/or enterprises seeking commodity information or to purchase products — depends entirely on the Internet. Digital marketing and audiovisual content has thus become necessary for companies to promote their brand and reach customers. Accordingly, A-Connect was launched as an audiovisual platform for direct communication with viewers. This project is critical for Advantech to realize its vision of global digital operation.

Creating the largest streaming platform for the AIoT world

The pandemic shifted many of Advantech's marketing activities to online platforms. Even Advantech's World Partner Conference (WPC) was held online, with the company's Embedded IoT, Industrial IoT, and Service IoT business groups investing considerable resources into producing audiovisual content on the latest AIoT industry technology trends and Advantech's latest solutions.

Sindy Lin, Marketing Director of Advantech's Industrial-IoT Group, pointed out that the Advantech Taiwan Headquarters' response to the rapid growth in online marketing activities led to the creation of a special live broadcast room and multiple studios. Using these, employees, Eco-system partners, and industry experts collaborate to produce audiovisual content on topics including but not limited to IoT, AI, 5G, cloud computing, and edge intelligence.

Leaders Talk–Modularized Platform Integration Services

Advantech decided to build A-Connect for enterprises interested in AIoT topics and seeking a growing library of audiovisual content. According to Ms. Lin, Advantech expects A-Connect to become the largest streaming platform for AIoT. The platform will integrate IoT eco-system chain partners to quickly accumulate AIoT audiovisual content. For customers and industry professionals alike, A-Connect will provide an extensive audiovisual center AIoT-related knowledge, thus strengthening Advantech's role in enabling an intelligent planet.

Advantech Connect can also benefit sales and marketing efforts. This new video platform provides Advantech sales an innovative way to engage with customers. It can smoothen communication between sales and customers while helping accelerate the conversion of business opportunities.

Hassle-free benefits for customers, marketing, and sales reps

Since the A-Connect platform was launched for testing in March 2022, it has been constantly optimized and had functions added based on user feedback. As of September 2022, it had more than 7,000 visits, demonstrating the strong appeal of its audiovisual content.

Franny Yeh, Project Assistant Manager of Embedded-IoT Group at Advantech, described the platform as "hassle-free" when asked to summarize her observations after the platform was launched.

For sales reps, it means they no longer need to visit YouTube or write to colleagues to find relevant marketing videos. Sales personnel can quickly find videos on the platform and share them with customers via social media, thus reducing the time needed to find relevant

content. Additionally, the A-Connect Business Performance Dashboard tracks the number of videos shared by sales reps and performance data of the sales reps' live broadcasts.

Marketing personnel can use the A-Connect Video Performance Dashboard to track measures including the number of views and total viewing time, giving them a means to adjust their video production planning to improve the quality of the video content and make it more eye-catching. The Membership Dashboard also enables them to effectively track the customer journey and drive conversions.

For customers, the platform has AI and a video quick filter function for recommending videos based on their subscription topics or favorite content, thus helping them find the videos they want to watch quickly. Free technical consultations and new product experience opportunities are also available to provide more in-depth services for customers. Notably, A-Connect's audiovisual content is also connected with the Advantech IoTMart e-commerce platform to enhance customers' online shopping experience.

Looking forward to 2023, A-Connect is rapidly moving toward a membership growth goal, with the number of members estimated to increase by 200%. Utilizing a membership system and AI recommendation technology, Advantech will create greater customer value and complete their omnichannel marketing objectives. Over the next three years until 2025, Advantech will continue working with partners in the global IoT industry to produce high-quality content, making A-Connect the world's most influential digital AIoT live webinar and on-demand video platform. ■

Advantech Builds the World's Largest IoT E-Commerce Platform — IoTMart

To realize global digital operations, Advantech has launched an e-commerce transformation project to revise its 12 global eStore sites and build the IoTMart global flagship store for IoT products (one international station and seven major regions).

Photos provided by Advantech
Interview with Gary Lee, Director, Digital Marketing Department of Advantech

In 2006, when global e-commerce was in early development, Advantech took the lead in establishing the Advantech eStore website to provide online purchasing of industrial computers and peripherals. To date, 12 storefronts covering most of countries on the planet have been established. However, Advantech's transformation into a comprehensive IoT solution provider meant that the eStore did not fit the new sales model. To promote their e-commerce transformation, Advantech built a new e-commerce platform — IoTMart — as a B2B online procurement process to better meet customer needs. This has made it easier for customers to purchase IoT products online and the efficiency of Advantech's e-commerce operations has been enhanced.

Achieving zero manual operation through automation

According to Gary Lee, Director of Digital Marketing Department at Advantech, the company is upgrading its global sites to provide complete online procurement services for customers. This will be done by migrating front, middle, and back-end systems to the cloud and integrating front-end inventory and back-end logistics. They estimate that by 2025, upgrades will be completed for international sites distributed across Taiwan, the United States, China, Europe, Japan, and South Korea, thus providing efficient online procurement services globally.

The US IoTMart site has already been launched, with some orders needing zero manual operation. That is, from the time a customer places an order, the system automatically performs all subsequent processes (e.g., payment, picking, and shipping). Mr. Lee emphasized that the automated process dramatically improves customer satisfaction, with savings on labor being redirected to more valuable business innovations. This provides new momentum to e-commerce operations.

The IoTMart international site will allow Taiwan Headquarters to select products and directly receive orders online, with prices formulated according to market regulations and transaction norms. Stock of certain items will be dedicated for specific products, and delivery services will be provided from dedicated warehouses to enhance global customers' order fulfillment experiences.

Connecting front, middle, and back ends to the cloud to optimize the shopping experience

Advantech will implement the Salesforce Commerce Cloud to completely transfer the e-commerce platform from local servers to the cloud. This has been completed for the North American site. Mr. Lee pointed out that migrating to the cloud seamlessly connects CRM and ERP systems with the establishment of a brand-new central control room that integrates all front- and back-end data. Through data integration and analysis, e-commerce operators can optimize their customers' purchase experience.

Adapting to local conditions to enhance customer willingness to use IoTMart

Mr. Lee believes that changing people's habits is the biggest challenge, especially for B2B procurement. To overcome this, Advantech has optimized the platform according to customers' major pain points. For example, most US companies are used to purchasing online and have no difficulty operating the platform. Concerns are more focused on the user-friendliness of the interface and the convenience of the purchasing process. And when the Advantech North America IoTMart platform functions were upgraded, the focus was placed on optimizing the customer order process and delivery of goods.

By contrast, many Taiwanese companies are accustomed to placing orders directly with Advantech via e-mail or telephone. Features of the Taiwan IoTMart platform were designed to educate customers to switch to online purchasing through such initiatives as Advantech's valet ordering service.

Although the future of e-commerce is bright, many challenges remain. Enterprises must constantly develop new strategies to improve the customer shopping experience. Advantech's IoTMart will continue to be transformed and innovated to become the preferred platform for customers purchasing IoT products. ■

DIGITAL TRANSFORMATION

Realizing Smart Factories via Data Visualization, Diagnosis, and Prediction

Advantech launched the iFactory Dashboard to implement diagnosable and predictable visual dashboards across factories on both sides of the Taiwan Strait in an effort to reduce production costs, improve product quality, and optimize factory operations.

Photos provided by Advantech
Interview with Frank Huang, Director, Linkou System Integration Factory of Advantech

Since the advent of Industry 4.0, smart factories have become vital for manufacturers seeking to enhance their competitiveness. Advantech, as a global promoter of smart factories, has continued to promote the intelligentization of its factories. When the company's global digital operation transformation was launched, it focused on iFactory and proposed the iFactory Dashboard project. This dashboard uses a data center to integrate data from various systems and implement visual dashboards in Advantech's factories, thus realizing intelligent factory operations.

Building a smart factory with autonomous decision-making

Frank Huang, Director of Advantech's Linkou System Integration Factory, pointed out that although Advantech's factories already have a command center to visualize real-time production data, its application remains limited. First, Advantech's factories had not reached a unified consensus on the logic of digital analysis, as the processes were usually organized and articulated separately. Second, the original command center dashboard shows only current data and cannot perform diagnosis or prediction. This makes it impossible to take special precautions

before emergencies occur. Furthermore, the original dashboard only considers past and present data, making proactive management difficult.

The ability to visualize data alone is insufficient. Data transparency is critical in diagnosing why specific events occur and achieving autonomous decision-making for adaptability in a predictive capacity. To accomplish such goals, Advantech launched the iFactory Dashboard project to develop a common factory performance communication platform, establish digital diagnosis and prediction capabilities, and build smart factories that can make autonomous decisions.

Utilizing digital diagnostics to identify production issues

For digital diagnosis of where an abnormality

might occur in a factory's production line, the project team proposed implementing system modules for diagnosis at shipment, productivity, test yield reproducibility, and inventory levels. Taking productivity diagnosis as an example, the newly developed production profiling function enables the system to diagnose which machine is lagging whenever a reduction in productivity is detected, thus revealing the cause of the problem.

Mr. Huang elaborated that making the system capable of diagnosing issues is a long-term project. In this regard, the project team works closely with on-site personnel and continuously adjusts the diagnostic system according to reports, thus optimizing factory processes. Now, when an abnormality occurs, the system can automatically analyze and diagnose the problem, and on-site personnel can immediately respond to system warnings. This means that problems can be identified immediately while removing the need for manual decision-making.

Digital prediction enables proactive management

For digital prediction of the operational needs of a smart factory, the project team developed five predictive models for output value, DOH,

labor utilization rate, units per hour per person, and manufacturing expenses.

In the case of the DOH predictive model, managers can view real-time inventory and forecast figures for the end of month on the dashboard. ERP system data is integrated for comprehensive analysis and any risk factors that lead to an increase in inventory can be predicted. Purchasing decisions can then be adjusted accordingly.

Overall, factory administrators can diagnose the cause of issues based on the digital prediction of various KPIs and take precautionary measures. During the process, administrators continuously observe whether decision-making actions are effective based on an update of the predicted value, thus realizing proactive management enabled by smart factory technology.

Mr. Huang concluded by mentioning that a year after the implementation of the iFactory Dashboard project, output value had increased by 20% and overall productivity had increased by 13%, demonstrating that intelligentization has significantly improved the operational efficiency of Advantech's factories. In the next phase, the iFactory Dashboard project will have additional features and Advantech will continue to optimize digital management of its factories. ∎
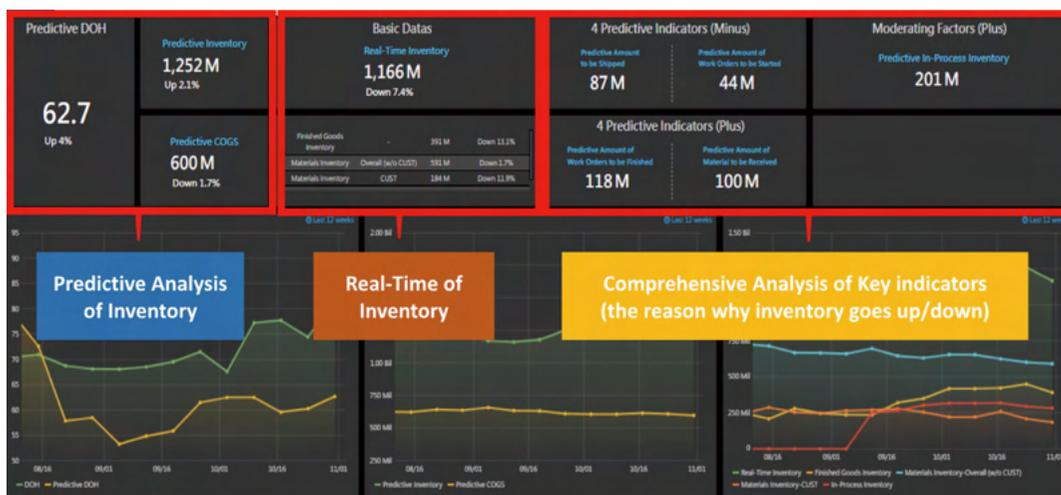
Connecting Sales, Inventory, and Operational Data to Intelligentize SCM

To eliminate data silos resulting from independent system databases, Advantech launched the SCM SIOP Dashboard digital transformation project to comprehensively connect business, inventory, and operational data with a visual dashboard for smart supply chain management (SCM).

Photos provided by Advantech
Interview with Jonney Chang, Associate Vice President, Industrial-IoT Group of Advantech; Kelly Chang, Manager, Industrial-IoT Group of Advantech

SCM is crucial to improving competitiveness in manufacturing. In particular, severe material shortages caused by the COVID-19 pandemic have highlighted its importance. Therefore, Advantech launched the SCM SIOP (sales, inventory, and operations planning) dashboard project to promote global digital operations transformation. Jonney Chang, Associate Vice President of Advantech Industrial-IoT Group, pointed out that SCM SIOP connects sales, inventory, and operations planning to create a unified data platform that integrates data from different systems. SCM SIOP solves issues surrounding a lack of SCM data transparency and low management efficiency. Furthermore, it comprehensively optimizes SCM and improves a company's operational performance.

Visualized dashboard creates operational benefits

Kelly Chang, Manager of Advantech Industrial-IoT Group, elaborated that previously, Advantech's SCM management operations involved retrieving data from separate databases of different systems such as eManager, SAP ERP, PLM, and iSCM, then integrating and analyzing all the data. This made SCM time-consuming and labor-intensive. For example, the supply chain data of a single Industrial IoT business group may exceed 200,000 data sets per month, and to make things more difficult, the accuracy of data reporting may be inconsistent.

The SIOP digital transformation project was thus proposed to solve information transparency issues in each system. Ms. Chang stated that SIOP collects information on issues of concern from different departments linking business, inventory, shipment, delivery, and product information. Pertinent information is then analyzed and made visual on a dashboard. Initially, the SIOP team focused on the critical issues of sales and inventory for which they developed eight critical dashboard functions to improve Advantech's SCM.

For example, the On-Demand Backlog function gives a clear view of unprocessed orders and materials information for the next three months, helping unit supervisors quickly identify risky orders that may lead to untimely deliveries, thus shortening inventory turnover. Another function shows available stock and displays commodity inventory information in real time, which enables Advantech's business groups and the IoTMart e-commerce platform to better strategize.

The many functions of the SIOP Dashboard have been launched sequentially, with more than 600 IIoT business unit part numbers effectively converged, enabling the planning of new products while improving operational performance. Mr. Chang explained that 20% of Advantech's part numbers accounted for about 80% of sales. Through integrated analysis of SCM data, Advantech has identified products with low turnover and some are due for discontinuation. Most of the materials used for these products can thus be diverted to those that sell well, which has reduced the impact of material shortages.

Data is the key to successful project execution

Mr. Chang emphasized that data is the key to success of the SIOP project. Therefore, each dashboard design must focus on four data-related areas to drive the company's long-term transformation: data accuracy, ongoing data accumulation, data analysis, and actions for improvement.

The project team began by first identifying correlations between different data sets. The pairing logic of system data was established through careful analysis. After the data was processed to generate reports, constant verification and adjustments were essential to improve accuracy with accumulated data being continuously updated to reap maximum benefits.

Last but not least, the SIOP project will expand the platform according to actual needs and usage scenarios. For sales, SIOP will implement AI-assisted decision-making applications so that each strategic business unit, regional business unit, and IoTMart can instantly allocate global inventory. This will prevent unfulfillable orders, improve operational performance, and optimize the customer shopping experience. For production, the project team will cooperate with iFactory and WISE-PaaS teams to optimize the SIOP Dashboard design, with the possibility of transforming SIOP system functions into solutions to assist other manufacturers in benefitting from smart SCM. ■

DX-SCM SIOP Dashboard
Sales, Inventory and Operations (SIOP) Planning - carefully integrating sales, marketing, supply chain, operations, product management, procurement, pricing, and finance with the executive team

Data Transparency · Information Real Time · SAP · PLM · MES · Data Analysis · Quick Response
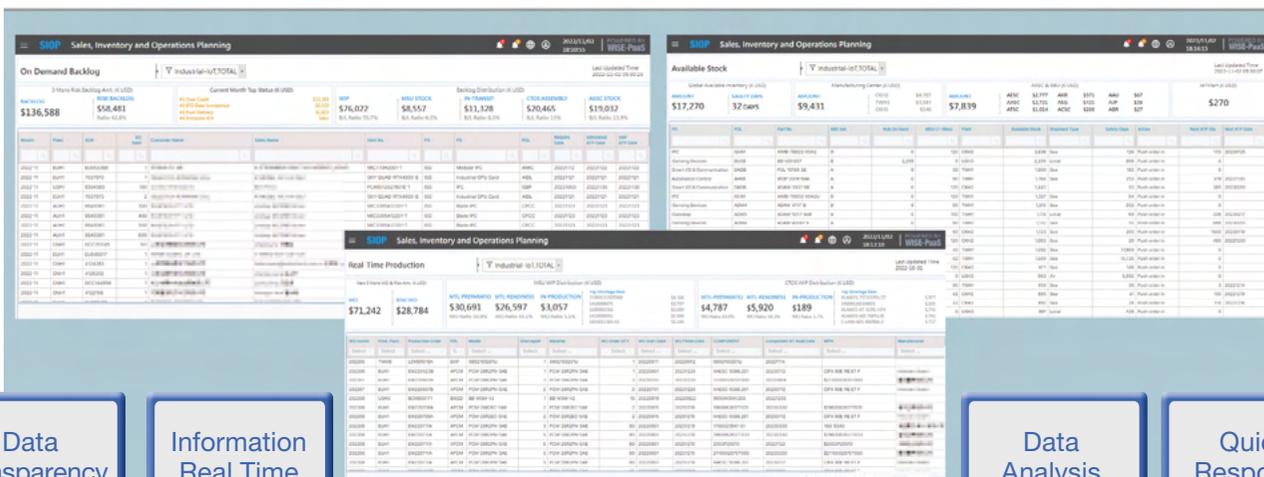
Data Lake

Utilizing IoT Applications to Advance ESG

In line with Advantech's mission to advance environmental, social, and corporate governance (ESG), the company has collaborated with partners around the world to implement IoT applications. Indeed, it has expanded the availability of healthcare services through smart healthcare, addressed water shortages with intelligent water resource treatment and management, and reduced carbon emissions via electric vehicle (EV) and smart factory energy management. This demonstrates Advantech's commitment to achieving sustainability through concrete action.

Enabling an Intelligent and Sustainable Planet

From 2020, Advantech established the ESG Corporate Sustainability Committee and the ESG Office, managing projects related to corporate sustainability from the three aspects of governance, environmental, and social responsibility.

To determine how to align CSR projects with core development strategies, Advantech carefully reviewed its existing commitments and current CSR trends. This resulted in Advantech establishing the ESG & Corporate Sustainability Committee and Office. The office is responsible for analyzing all aspects of company operations through the lens of CSR and ESG values in order to improve business sustainability. Advantech's ESG Corporate Sustainability Committee includes six members in all, including the Chairman (Founder), an external director, the President of General Management, the highest manager of the Quality Assurance Department, the Vice President of Audit, and the Vice President of Human Resources.

Advantech ESG Corporate Sustainability Committee

Presiding Chair: the Chairman
Members: Director, President of General Management, highest manager of Quality Assurance, vice president of Audit, vice president of Human Resources

ESG Office

Advantech Foundation

Governance			Environmental		Social		
Corporate Sustainability	**Emerging Business Opportunities Management**	**Corporate Governance**	**Green Operations**	**Energy Management**	**Talent Cultivation and Development**	**Arts and Society**	**Education on the Internet of Things**
Functions of the Board of Directors	Sustainable Intelligent Solutions	Information Security Management	Eco Design	Energy-Saving Technical Transformation	Talent Lab	Arts and Culture	University Co-creation
Co-Creation with Customers and Partners	Product and Process Innovation	Risk Management Legal compliance	Product Liability	Energy Management Business	On Demand ABLE Club	Innovation and Sustainable Education	AIoT InnoWorks
		Sustainable supply chain management	Climate Change Strategy and Environmental Management				AIoT Academy

Putting forward recommendations for nine key categories

Advantech emphasizes transparent communication and defines its main stakeholders as employees, customers, partners, suppliers, shareholders/investment institutions, media, public associations, communities, and non-profit organizations. In addition to interacting with stakeholders during daily operations, Advantech uses channels such as CSR activities, conferences, surveys, on-site visits, and PR events to cultivate stronger relationships.

The ESG Office draws up an annual plan, reporting the progress of major ESG issues and projects to committee meetings on a quarterly basis. After a new project is confirmed by the committee, the responsible team will take action and the ESG Office will regularly track the results and propose improvement plans.

In 2021, the ESG Office reported to the Board of Directors on two occasions. Approved matters included the carbon neutrality target of the Taiwan headquarters, the green power investment plan, and the issuance of the yearly report. Additionally, Advantech conducted the first survey of its overseas branches. The preliminary results were provided to the ESG Office, which evaluated the company's development strategies and coordinated with the committee to offer advice on necessary amendments in the key categories listed below.

1. Talent cultivation and development
2. Information security management
3. Sustainable intelligent solutions
4. Sustainable supply chain management
5. Eco design and product liability
6. Innovation mechanisms
7. Co-creation with customers and partners
8. Risk management
9. Greenhouse gas inventory and energy management actions

Advantech's ESG Vision: Enable an Intelligent and Sustainable Planet

Community Enrichment
- Implementing employee care and social benefit using the ABLE Club platform
- Diversified channels for talent cultivation
- Networked agile organizations accelerating innovation

2025 goal: Inclusion in the Dow Jones Sustainability Indices (DJSI)

AIoT Popularization
- AIoT Academy
- AIoT InnoWorks industry-university co-creation
- IoT ecosystem partner co-creation

2025 goal: 50 universities worldwide to participate in the co-creation of InnoWorks with 500 system integration partners

Green Operations
- Climate change strategy and energy management
- Eco design
- Smart solutions

Year	
2021	announced Science Based Targets initiative (SBTi)
2022	Issue Task Force on Climate-Related Financial Disclosure (TCFD) report
2025	Inclusion in the Dow Jones Sustainability Indices (DJSI)
2025	Carbon Disclosure Project (CDP) score of A
2026	Taiwan region renewable energy utilization rate to reach 50%
2032	Taiwan region renewable energy utilization rate to reach 100%

SUSTAINABLE APPLICATIONS

Sustainable development goals

According to Advantech's ESG vision to "Enable an Intelligent and Sustainable Planet," Advantech believes that its core IoT technologies and solutions, as well as its corporate culture of open innovation and co-creation with partners and long-standing IoT industry-university cooperation, should enable it to effectively utilize its core capabilities to respond to the United Nations Sustainable Development Goals (SDGs) of #4 Quality Education, #7 Affordable and Clean Energy, #13 Climate Action, and #17 Partnerships for the Goals. In addition to focusing on these UN SDGs, the company has also responded to other SDG projects dealing with other major issues.

Key achievement of 2021 environmental dimension

Regarding sustainable intelligent solutions, Advantech performs inventory revaluations to seek sustainable use for existing products and markets. In 2021, 12.1% of revenue was from products for sustainable use. Advantech set a Science-Based Target (SBT) for carbon reduction in 2021. Using 2019 as the base year, the company proposed targets for reducing the carbon intensity of Scope 1 and Scope 2 products by 60% by 2030 and reducing that of Scope 3 products by 49%. Furthermore, Advantech passed a compliance review organized by the Science-Based Targets Initiative (SBTi), which makes it the third technology industry company in Taiwan to pass such a review, and it continues to move forward in pursuit of these goals. Also, in 2021, a CDP Climate Change Questionnaire was submitted and awarded a B Listing. The scoring methodology is a means to assess a company's progress towards environmental stewardship as communicated through their CDP response.

Social dimension

The company also applied their IoT technology and expertise in the field of intelligent medical care to meet UN SDG goals in #3 (Good Health and Well-Being). Beyond this, it also responded to SDG goals in #9 (Industry, Innovation, and Infrastructure) and #4 (Quality Education). Additionally, Advantech offered support for IoT education, hoping to provide a better learning experience and benefits for Taiwanese students. Global actions include the telehealth charity program in Taiwan, IoT education, and industry-university co-creation with over 17 universities.

Governance dimension

Advantech achieved brilliant recognition in 2021, including a listing in the TWSE companies in the top 20%, and being listed 5th Best Taiwan Global Brands, as well as being mentioned in the Yuanta FTSE4Good TIP Taiwan ESG ETF fund, TWSE Corporate Governance 100 Index, and TIP Taiwan Environmental Sustainability Index.

Advantech proudly upholds its commitment to sustainability and plans to formally establish a board-level sustainability committee in 2022. ■

Advantech CSR Website   Advantech CSR Report

Advantech Creates the First Smart Hospital in Vietnam

Advantech's iHospital solutions helped create the first smart hospital in Vietnam, improving the quality of care, reducing medical costs, minimizing the burden on hospitals, and providing patients with better services.

Although Vietnam possesses a robust healthcare system, hospitals in the country face significant challenges. Most public hospitals were built more than two decades ago and are in urgent need of upgrades to their facilities, equipment, and services. Transforming them into smart hospitals has therefore been a key task for the Vietnamese government and healthcare sector.

Thai Hoa General Hospital has been firmly committed to becoming a leading smart hospital in Vietnam. To help achieve the hospital's goal, Advantech took on the responsibility for system design and provided a complete iHospital solution. This solution was comprised of Advantech's mobile medical cart (AMiS), smart ward solutions (iWard), and an Advantech Video Archiving and Streaming (AVAS) solution for the operating room. All of these solutions are designed with a patient-centric mindset. Additionally, solutions for virtual care and teleconsultation (iTeleMed) and a medication management system (iMedication) have also been built and integrated to ensure that data can be easily and safely accessed during group and individual consultations by medical personnel. The medication status of patients can also be monitored seamlessly and accurately.

Mrs. Truong Thi Bich Thuan, a representative of hospital investors, stated that "Thai Hoa Hospital is proud to be a pioneer in Vietnam regarding the digitization of medical examinations and treatment. The new system contributes to improving diagnosis, treatment, and surgery." These improvements are expected to minimize unnecessary and unsafe hospital transfers, reduce overcrowding in specialized tertiary hospitals, and increase public trust and satisfaction with healthcare in the province of Ninh Thuan.

This breakthrough in digital transformation is particularly pertinent amid the COVID-19 pandemic. It constitutes a major milestone for the healthcare sector not only in Vietnam but the entire region. ■

Advantech Assists Ranitec in Implementing an Intelligent Wastewater Management Solution in India

Advantech and the Industrial Technology Research Institute (ITRI) have joined hands to implement smart water treatment solutions for the Indian leather industry, improving the water management efficiency of tanneries and significantly reducing waste.

Leather manufacturing consumes an immense amount of water and releases various pollutants. A small tannery with the capacity to process 3 to 4 tons of hides and skins daily uses 100,000 liters of water—equivalent to the daily household requirement of 2,500 people. Therefore, as the world's second-largest producer of footwear and leather goods, India urgently needs to improve water resource management efficiency through smart solutions to achieve environmental sustainability.

Tamil Nadu, the southernmost state of India, is home to 50% of India's tanneries. Taking measures to improve wastewater treatment is critical in this region. Therefore, the non-profit Chennai Environmental Management Company of Tanners established six common effluent treatment plants (CETPs) in Tamil Nadu to offer assistance to tanneries that are unable to install expensive water treatment facilities.

While seeking solutions to improve outdated facilities and reduce operating costs, one of the six CETPs, Ranipet Tannery Effluent Treatment Company Ltd. (Ranitec), approached ITRI's Water Technology Research Division and Advantech to implement their water treatment solution. ITRI's BioNET® technology and membrane bioreactor (MBR) reduced ammonia by 96%. Additionally, it made condensate reusable, improving water recovery rates and extending the lifespan of UF and RO membranes. Electrodialysis (EDR) minimized the inlet volume of brine to mechanical vapor re-compression (MVR) while decreasing energy consumption and increasing water recovery.

Due to the successful results of the solution, Advantech intends to collaborate even more closely with ITRI in the future and continue to promote intelligent wastewater management solutions in more Indian regions and other countries, thereby contributing to huge reductions in pollution levels. ■

EDITOR'S DESK

DIGITAL TRANSFORMATION

SUSTAINABLE APPLICATIONS

ADVANTECH BEAUTIFUL LIFE

ADVANTECH 40TH ANNIVERSARY

Popularizing EVs by Overcoming Charging Facility Availability Challenges

Advantech helped a global leading electric vehicle (EV) charging solution supplier in South Korea and a renowned robotics solution provider in China develop EV charging solutions. This was done in an effort to demonstrate environmental, social, corporate governance (ESG), and net-zero emissions commitments.

According to the UN, global emissions must be cut by 45% by 2030 (relative to 2010 levels) to align with the Paris Agreement's long-term temperature goals. Accordingly, many countries and organizations have launched carbon neutral initiatives aimed at helping individuals, businesses, and states reduce their carbon footprint and/or hit net-zero emissions targets.

This is why governments and automakers around the world have been promoting the development of the EV and EV charging industries. Despite these efforts, the low availability of charging facilities is a major barrier for people looking to purchase EVs. This is also the biggest concern for governments promoting EVs as a means to reduce emissions.

Advantech has joined forces with many part-

ners in EV-related projects to demonstrate their commitment to ESG and net-zero emissions efforts. Among them, a global leading EV charging solution supplier in South Korea and a renowned robotics solution provider in China have both selected Advantech's product offerings as the core of their solutions in an effort to make EV charging facilities more accessible.

Advantech partners with a leading EV charging solution supplier

The South Korean government is helping station operators and automobile makers sequestrate sites by offering subsidies and tax benefits and by regulating the mandatory installation of EV charging infrastructure in new buildings. Recognizing the growth of the EV market, a major EV charger manufacturer selected Advantech's MIO-5375 3.5" single-board computer (SBC) for its EV rapid chargers due to Advantech's long-established reputation and experience with self-service fuel-dispensing equipment in the country.

Compliant with most industrial standards, the MIO-5375 met the company's criteria and passed reliability tests for rapid-charger projects conducted by renowned car brands in Europe and North America. Its network connectivity allows real-time data, such as charge comple-

tion times and charging bay availability, to be streamed to a centralized command center for monitoring EV charger metrics. Because MIO-5375 SBCs are a proven solution, the company can easily integrate them into future EV charging devices without re-verification, making it easy to promote EV charging solutions and help many more countries achieve their ESG and net-zero emissions targets.

3D vision-guided AMRs solve EV charger availability challenges

In China, Advantech partnered with an innovator dedicated to robotics solutions. The company decided to adopt Advantech's edge industrial computers to overcome charger availability challenges. Advantech's comprehensive product portfolio made it easy to develop highly-integrated 3D-vision-guided autonomous mobile robots (AMRs).

These AMRs perform diverse tasks, including autonomous identification (e.g., face recognition and behavior analysis), network communication, and visual positioning during autonomous driving. They turn "cars looking for EV chargers"

into "chargers looking for cars." Using this system, ordinary parking lots can easily provide charging facilities. It allows drivers to remain in their cars when using these unmanned parking lots, and the AMR's machine vision will locate the charging port and guide the plug to the car quickly and automatically. It even automatically closes the charging cover when finished. Overall, the solution's excellent capabilities and Advantech's impeccable project execution have contributed to positive public perception toward EV infrastructure.

Based on the corporate vision of "enabling an intelligent planet," Advantech hopes to realize the altruistic spirit of co-enrichment and create sustainable intelligent solutions that meet UN SDG goals. This spirit will help Advantech contribute more of its technological strengths toward many more EV-related projects, helping the world achieve zero emissions in transportation. ■

Products and Solutions

Products/Solutions	Description	Model Name
1st project	3.5" single-board computer (SBC)	MIO-5375
2nd project	Industrial computer	IPC-240
	Expansion card with PCIe x4 support	PCE-GIGE4
	4-port PCIe USB vision frame grabber	PCIE-1154
	Industrial camera	QCAM-UM1440-220CE
	2-port CAN bus universal PCI card with isolation protection	PCI1680U
	Industrial LTE cellular router	BB-SL300 series SmartStart

Augmenting Factory Energy Management and Improving Sustainability

Manufacturing plants worldwide are adopting smart technologies and solutions to improve their energy management and achieve carbon emission reduction goals. Advantech contributes to these sustainability efforts by providing energy management solutions for factories.

The *World Energy Outlook 2021* report indicates that the industrial sector accounts for 40% of total global energy consumption. The generation of this energy is dominated by fossil fuels and results in high carbon emissions at the rate of 8.7 billion tons per year. This is second only to those generated by the power utilities sector. Major economies, including the EU, and organizations, like the UN, have set agreements and standards in an effort to reduce energy

consumption and their corresponding carbon emissions. To illustrate this, the European Commission announced the *Fit for 55* plan in 2021. If successful, it will see the EU reduce its net greenhouse gas emissions by at least 55% by 2030 (relative to 1990).

Reducing carbon emissions to achieve social responsibility goals

Manufacturers and factories have adopted a range of smart technologies and solutions to improve energy management in an effort to achieve these goals. Indeed, a well-known Taiwanese electronics manufacturing service (EMS) foundry has adopted Advantech's iFactory Energy Sustainability Management Solution in its factory in Mexico to realize regulatory compliance.

To date, the factory has integrated and implemented three I.Apps. These allow factory personnel to monitor energy consumption in line with their management system and accurately assess their energy costs while optimizing energy efficiency. Ultimately, it helps them realize a sound business intelligence strategy in energy management. First, the FMS (Facility Management and Sustainability) I.App monitors energy consumption, optimizes energy usage, reduces energy waste, and minimizes cost. Second, the Energy KPI I.App, which complies with ISO 50006 for setting energy efficiency management indicators, provides an effective method for optimizing energy processes. Indeed, the Energy KPI I.App can be leveraged to make critical judgments in production processes, understand possible waste causes, and make timely improvements. Third, the Predict I.App leverages combined statistical models and expands AI for energy demand analysis. This helps businesses infer energy baselines as a strategic basis for energy management.

In addition to the IFS-51A-EGW1 Smart Manufacturing Suite, Advantech's iFactory solutions also include the IFS-EGM Starter Suite and IFS-51C Data Center Suite. These provide enterprises with additional options, and allow factories to determine the most suitable energy management solution for their needs. This means that factories are more capable of responding to developing international standards as they are initiated by different economies or organizations. It also reduces their energy costs and carbon emissions, thus adhering to their commitments to social responsibility.

Energy management systems reduce consumption and costs

After choosing Advantech's system, the EMS foundry were able to deploy the energy management solution without substantial capital investment. In the end, Advantech's solution helped reduce overall consumption and increased energy savings from 8% to 13%. Advantech will continue to help global manufacturing develop smart factory solutions in an effort to save costs and cut global carbon emissions. ■

Products and Solutions

Solutions

IFS-51A-EGW1

IFS-EGM Starter Suite

IFS-51C Data Center Suite

I.Apps: FMS, KPI, and Predict

The Advantech Linkou Intelligent Campus Demonstrates Environmentally Sustainable Solutions

Advantech's Linkou Intelligent Campus is a green building featuring an intelligent energy management system (iEMS) that conserves energy. This system reduces energy consumption and carbon emissions significantly and has helped Advantech become an ESG leader.

Photos provided by Advantech
Interview with LH Chou, Senior Manager of Advantech; Richard Liu, Senior Engineer of Advantech;
Jeter Fu, Senior Specialist of Advantech

Advantech's Linkou Intelligent Campus underwent three phases of construction. The site leverages diverse intelligent energy-conservation solutions developed by Advantech and has set a benchmark in the field of intelligent green buildings. Illustratively, it took the Platinum Award in the Asia Pacific Intelligent Green Building Alliance (APIGBA) competition. This campus' comprehensive, intelligent energy-conservation systems and applications have attracted visitors seeking to learn more about Advantech's underlying philosophy and approach to environmental sustainability.

iEMS plays a vital role in industrial campus energy conservation

LH Chou, Senior Manager at Advantech, stated that the energy consumption of the buildings on Advantech's Linkou campus needed to be analyzed before implementing an energy management system. In the end, energy consumption benchmarks were established and energy-conservation performance indicators set, accomplishing the goal of energy conservation

and carbon emission reduction. iEMS played a crucial role in this process.

Advantech's iEMS comprises three critical solutions: Energy KPI, Energy Predict, and Energy Management Solution (EMS). These solutions perform the intelligent management of diverse equipment — including air conditioning, lighting, and power systems as well as production machines and green energy solutions on the Linkou campus.

The EMS solution monitors the operation status of the entire campus' environment and equipment. It then presents the overall energy usage through a visualized dashboard interface. In addition to the intelligent control of individual power consumption facilities, the system intelligently identifies and distributes electricity with the help of iEMS. This enables it to manage energy consumption more efficiently. For example, the campus can adopt peak shaving and load shifting strategies to optimize energy usage by better understanding on- and off-peak energy consumption and tariffs.

iEMS delivers significant energy conservation benefits

The implementation of iEMS delivered energy conservation benefits to office buildings and factories on the Linkou campus. Richard Liu, Senior Engineer at Advantech, pointed out that the system managed all the electrical facilities in the office buildings comprehensively and intelligently — including those found in the water coolers, split-type air conditioners, air handling units, fan coil units, cooling towers, air compressors, and lighting systems. Tellingly, Advantech's Linkou Campus, when combined with other branches in Taiwan, decreased office electricity consumption by 598,868 kWh in 2021. In total, this indicates a

6.6% decrease from 2020.

When asked about energy conservation in factories, Jeter Fu, Senior Specialist at Advantech, posited that iEMS played a significant role in the energy conservation of individual facilities. For example, intelligent management of the campus electronics warehouse in the campus B1 factory enabled warehouse temperatures to be adjusted automatically according to seasonal and environmental conditions. This saves about 14,000 kWh of electricity annually.

Since implementation, this application has saved about 52,000 kWh of electricity and reduced carbon emissions by 27,000 kg. It has also saved nearly 20,000 kWh of electricity annually and reduced carbon emissions by 10,400 kg. This was achieved through utilization of the EMS solution for data monitoring, and activating/deactivating the make-up air unit on the fifth floor of the factory. After combining these figures, a total of about 60,000 kWh was saved. Likewise carbon emissions have been reduced by approximately 31,200 kg per year.

Advantech uses the iEMS on its campuses to achieve more comprehensive energy conservation. Indeed, by connecting the electricity facilities of other branches in Taiwan, including its Neihu headquarters, Advantech is building a comprehensive energy management system and realizing its ESG philosophy. ∎

Products and Solutions

iEMS Solutions
···
Energy Management Solution (EMS)

iEMS/ECOWatch

iEMS/ECOEnterprise
···

Dedication to Corporate Social Responsibility

For four decades, Advantech has strived to create a better world by promoting industrial automation and smart applications. It is committed to corporate social responsibility and aims to evolve into an enterprise that contributes to a greater societal good.

In their mission to establish a balance between technological, cultural, and social development, Advantech employees demonstrate great care for the communities in which they work and live.

Advantech Korea Celebrates its 25th Anniversary

Advantech Korea (AKR) celebrated its 25th anniversary with customers, partners, and employees at the grand opening of its Incheon Service Center Building. This landmark project symbolizes AKR's commitment to promoting digital transformation and ESG, providing even better services to customers whilst a valuable contribution to society.

Twenty-five years ago, AKR started as Advantech's local dealer in Korea. Due to market demand, Advantech invested in the company and made AKR its regional business unit in 2009. With excellent marketing and sales strategies, as well as outstanding technical support, AKR has grown exponentially and increased its revenue 50-fold compared to 25 years ago. AKR started with just one office and now has four offices and more than 100 employees. Now there are two offices in Seoul, one in Jungbu and a new office in Incheon.

In August 2022, AKR's first self-owned

property—AKR Incheon Service Center—was completed. With optimized assembly lines and a better work environment for employees, the new space allows the company to provide shorter lead times. Coinciding with AKR's 25th anniversary, the grand opening of the building was a perfect opportunity to celebrate AKR's achievements with customers, partners, and employees, including several VIP guests from the Taiwanese representative office in Korea, universities, media, and financial investors.

Moving forward, AKR will follow the five-year vision put forth by Advantech's Taiwan headquarters to contribute to society, especially in the fields of digital transformation and ESG. As Advantech's IoTMart leads digital transformation in the B2B market, AKR will continue to invest in IoTMart to make it into one of AKR's business units, as well as to align SFC usage with headquarters to support e-commerce. Regarding ESG, the company is currently collaborating with universities on internship programs and with various agencies on recycling projects that meet government regulations. AKR is also pursuing energy-saving projects and cultivating more AIoT engineers. ■

AIoT Programming Camp Cultivates Japan's Future Data Scientists

Advantech hopes to help cultivate the next generation of data scientists in Japan by co-organizing the AIoT Programming Camp alongside the Nogata City government and the Kyushu University GLEAP Programming Club.

Advantech and the GLEAP programming club of Kyushu University held an event entitled AIoT Programming Camp with assistance from the Nogata City government in Fukuoka, Japan. The Nogata City government proposed the three-day event to schools in and around the city, and recruited 20 middle and high school students to compete in this challenge.

Working alongside Advantech's industry instructors, members of the GLEAP club served as teachers, then endeavored to prepare teaching materials and sample codes. The course gave participating students the opportunity to personally experience the work done by professional data scientists, and

enabled them to better understand the contexts in which programming is applied. Even students initially unfamiliar with computer programming produced unique ideas. Advantech personnel demonstrated the company's products, introduced several case studies, and used real industrial PCs to enliven the course during the event.

Advantech's primary contribution was the provision of a programming environment mimicking a real-world workplace scenario that prepared participants for the era of AI and IoT. By co-organizing this particular event with the Nogata City government and the GLEAP club of Kyushu University, Advantech is continuing to help cultivate the next generation of data scientists in Japan. ■

Donations Improve Education in Rural Sri Lanka and Hospital in Italy

To achieve equality in education and healthcare, Advantech Europe has donated computer equipment and funds to schools and units in need.

Advantech Europe donated 54 touch panel PCs to a school in Northern Sri Lanka (via an NGO) for use in teaching in an effort to improve the quality of education. These computers are generally used in hospital bedside care systems, but in this circumstance were donated to the Kalyani Foundation in the Netherlands which supports the development of education in rural Sri Lanka. This donation was made in an effort to apply Advantech products in more ways while adhering to Advantech's sustainable development goals (SDG).

Supporting pediatric hospitals to improve covid pandemic care

In response to the COVID-19 outbreak, Advantech Italy reallocated funding slated for customer Christmas gifts in 2021 toward a donation to the Buzzi Foundation in Milan, Italy. This helped a pediatric surgery department at the Buzzi Hospital — the only COVID pediatric hospital in Milan. Advantech Italy donated 2,200 euros and informed customers through Christmas cards that this year's budget had been allocated to a good cause (clients would usually be given wine, traditional Christmas food items, etc.). The hospital used the donation to purchase equipment and secure hospital emergency channels for COVID. The customers responded enthusiastically, acknowledging and appreciating the initiative and generosity. ◼
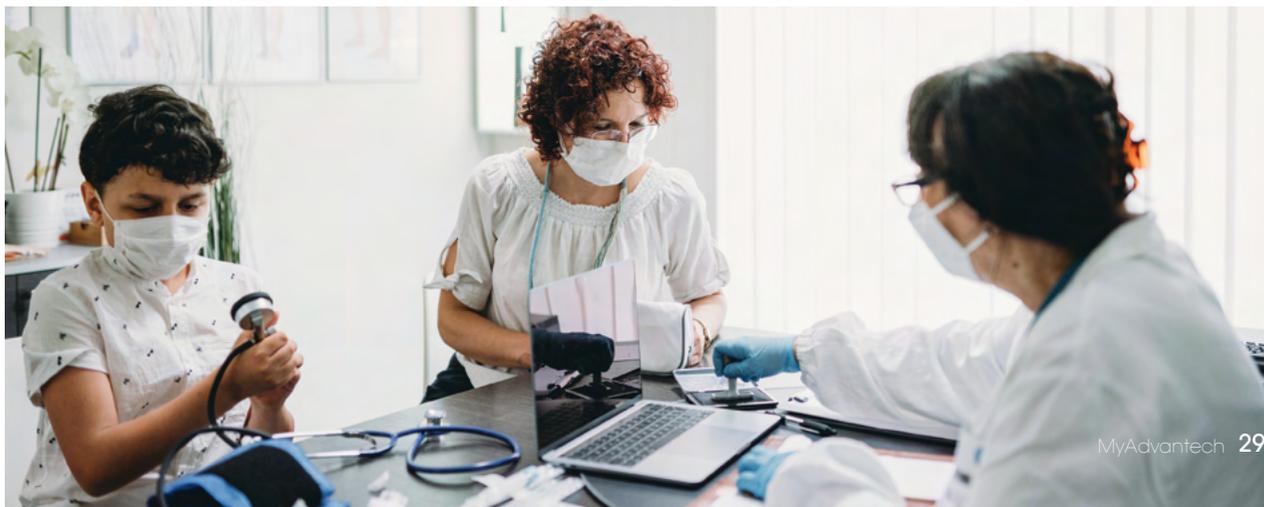
Advantech for the Community Program Highlights CSR Commitment

As a commitment to be a more socially responsible corporation, Advantech North America (ANA) created the Advantech for the Community program (A4C) to promote solidarity and unity among communities and people.

A4C aims to give back to communities and encourage employees to get more involved in local issues through activities such as cleaning beaches, donating to non-profit organizations, supporting fire and police departments, and organizing blood drives. With all ANA offices involved, A4C forges a stronger bond between ANA and its employees, boosts morale, helps employees feel more connected with their communities, and serves as a critical component in fulfilling the company's corporate social responsibility (CSR).

ANA offices made remarkable contributions in 2021. More new opportunities have emerged in 2022 for A4C to serve communities both locally and abroad.

Collection drive for the Ukrainian people

In April, A4C started a collection drive for Ukrainians displaced by the Russian invasion in March 2022. Two large truckloads of food, clothing, and PPE were collected.

Blood donor drive

A4C began a blood drive initiative in May 2022. All ANA offices participated by inviting the American Red Cross "Blood Mobile" to come to our offices. Employees were able to donate blood onsite at their local ANA office or blood banks, providing lifesaving donations to the Red Cross. Altogether, nearly a hundred employees participated in our blood donation initiatives across North America.

Environmental cleanup at Summit Park

In August, employees of the Advantech office in Cincinnati participated in an environmental cleanup at Summit Park organized by the Ohio River Foundation. The mission was to remove harmful invasive honeysuckle plants in the area without harming other species.

Starved Rock Country Community Foundation Scholarships

The Ottawa office has participated in the

Starved Rock Country Community Foundation Scholarship program for the past several years. Every year, we sponsor the Internet of Things (IoT) Scholarship for 2 high school students from LaSalle County who are pursuing careers in Science, Engineering, and Technology.

Beach cleanup with OC CoastKeepers

The Advantech office in Irvine has partnered with OC CoastKeepers for the past 2 years to host beach cleanups. Employees volunteered their time to clean up local beaches and help preserve the local water sources, wildlife and the environment. To promote this event, AIR office held a company BBQ for employees and encouraged volunteers to sign up. For this year's cleanup, 23 volunteers consisting of Advantech employees, their family and friends, were able to collect 51.4 pounds of trash in just over 2 hours. To date, Advantech has donated $10,000 to OC CoastKeepers and has collected over 100 pounds worth of trash.

CHOC walk and Advantech North America fundraiser

Advantech is an avid supporter of the Children's Hospital OC (CHOC) and their mission. CHOC is a non-profit hospital that provides lifesaving treatment to 150,000 children annually regardless of their ability to pay. For the second consecutive year, Advantech has been a proud sponsor in their annual CHOC Walk. In addition to sponsoring CHOC, Team Advantech USA sets fundraising goals of $5,000 every year to donate back to the Children's Hospital OC. This year, with the combined efforts of all ANA offices, we were able to surpass our goal and raised $13,025. Since beginning our partnership in 2020, overall, Advantech has donated a total of $43,112 to CHOC.

US$5,000 donation to Madi's House

Madi's House is a free non-residential outpatient treatment center that provides fun recreational activities and emotional support through music, art, and therapy. It is named after Madi Raleigh, a girl who struggled with mental illness and drug addiction and took her own life at age 24. She once expressed to her family that after her rehabilitation, there was neither a place for continued aftercare nor a community she could relate to regarding her ongoing struggles. Her family brought Madi's vision to reality and founded Madi's House, the only one of its kind in the Ohio region and one of only a few in the United States. Advantech's donation ensured much-needed continuation of wellness programs to prevent relapses.

Career panel and US$10,000 donation to Girls Inc. of Orange County

Girls Inc. of OC offers research-based programs for girls ages 5 to 18 focusing on STEM (Science, Technology, Engineering, & Math), literacy, college and career readiness, healthy relationships, sound body image, and advocacy.

The Irvine office supported this organization's "Girls Meet the Workforce" program by hosting a women's career panel discussing careers available in Engineering, Product Management, Human Resources, and Marketing. This program was designed to give high school girls exposure to career options in Embedded Technology. A4C awarded Girls Inc. of OC a donation of $US10,000 to further support this program.

The A4C committee is planning more initiatives for the future. One plan in particular has gained widespread support among ANA offices, namely launching a scholarship program in 2023 for students interested in pursuing STEM careers. ∎

Advantech Celebrates 40 Years of Success with Customers, Partners, and Employees

Advantech is hosting a series of events with employees and partners worldwide to celebrate the 40th anniversary of its founding. Advantech will continue to pursue its vision of enabling an intelligent planet via digital transformation and ESG.

When Advantech was established in 1983, its focus was on promoting industrial automation. Following several corporate transformations, Advantech has successfully developed software and IoT cloud platforms, and established complete solutions in the field of AIoT applications.

Advantech's plans for the field of AIoT

Over the past 10 years, with the vision of enabling an intelligent planet, Advantech has expanded its organizational and innovative R&D capabilities, and actively connected with external partners to accelerate the implementation of AIoT applications worldwide.

Advantech works with myriad domain focused system integrators (DFSI) and has used investment in numerous companies around the world to create Advantech domain focused solution partners (DFSP). In addition, Advantech will use the AIoT Campus to build links with even more DFSIs and DFSPs in an effort to create a global network that excels over the next decade.

Advantech is also pursuing a comprehensive ESG strategy, facilitating the sustainable

development of Advantech's operations through carbon reduction and providing AIoT solutions the enable global enterprises to improve sustainability.

A series of exciting events to celebrate Advantech's 40th anniversary

For its 40th anniversary, Advantech has planned a series of events to celebrate its accomplishments with its employees, partners, and customers. These events include Cycling with Advantech for Grateful Partnerships, an Intelligent Energy Management System (iEMS), campus lecture, a World Partner Conference, an activity collecting customer testimonials videos, an RBU Celebration Video Competition, MyAdvantech Story, and the Future of an Intelli-gent World Drawing Competition.

Cycling with Advantech for Grateful Partnerships is one of the most significant celebrations in this series of events. In it, Advantech will invite partners and customers to participate in cycling events around the world. These events will feature 20 ~ 30 km of cycling followed by an exciting after-party.

Additionally, the preliminary round of the Future of an Intelligent World Drawing Competition in Taiwan has been completed. The selected works will represent Taiwan in the Advantech Global Drawing Competition. This competition will stimulate the imagination of colleagues' children from all over the world, and encourage them to think about the future of an intelligent planet.

Promoting an Intelligent Planet: Advantech's AIoT Co-Creation Campus

Once the third phase of AIoT Co-Creation Campus is completed in 2023, it will form a central foundation for connecting with even more ecosystem partners. This will help create solutions applicable to smart factories and cities as well as healthcare, environment, and energy applications. In effect, it will become an essential showcase for Advantech to promote intelligent planet solutions.

1. Flywheel Square

With the IoT cloud platform at its core, Advantech will consolidate various business groups and connect with external partners to co-create a wide-ranging industrial ecosystem.

2. AIoT Co-Creation Terrace

From the co-creation terrace in the Advantech intelligent building, the campus will offer infinite possibilities for building an intelligent planet.

3. The Soul of Lita Tree

Fostering kindness, giving back to society, and sustaining the earth, Advantech is a positive force for growth in our communities and workplaces.

4. Themed Experience Hall

A complete solution, — comprising software, hardware, and the WISE-IoT cloud platform — this hall realizes Advantech's vision of an intelligent planet.

5. Gift Shop Experience Hall

Experience an immersive smart shopping experience and a beautiful life in an intelligent world with a range of Advantech gifts and merch.
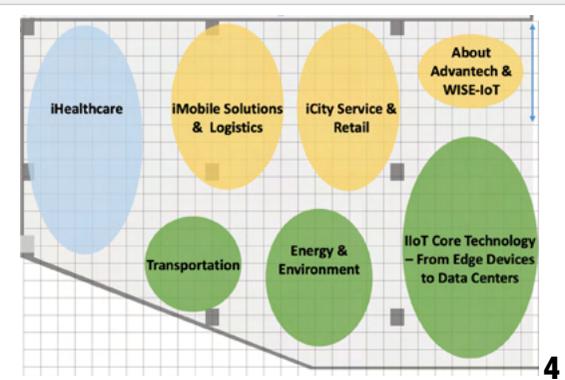
Advantech iEMS Solutions

HVAC

Energy Management

Enterprise index management

Compressor

Carbon

Power
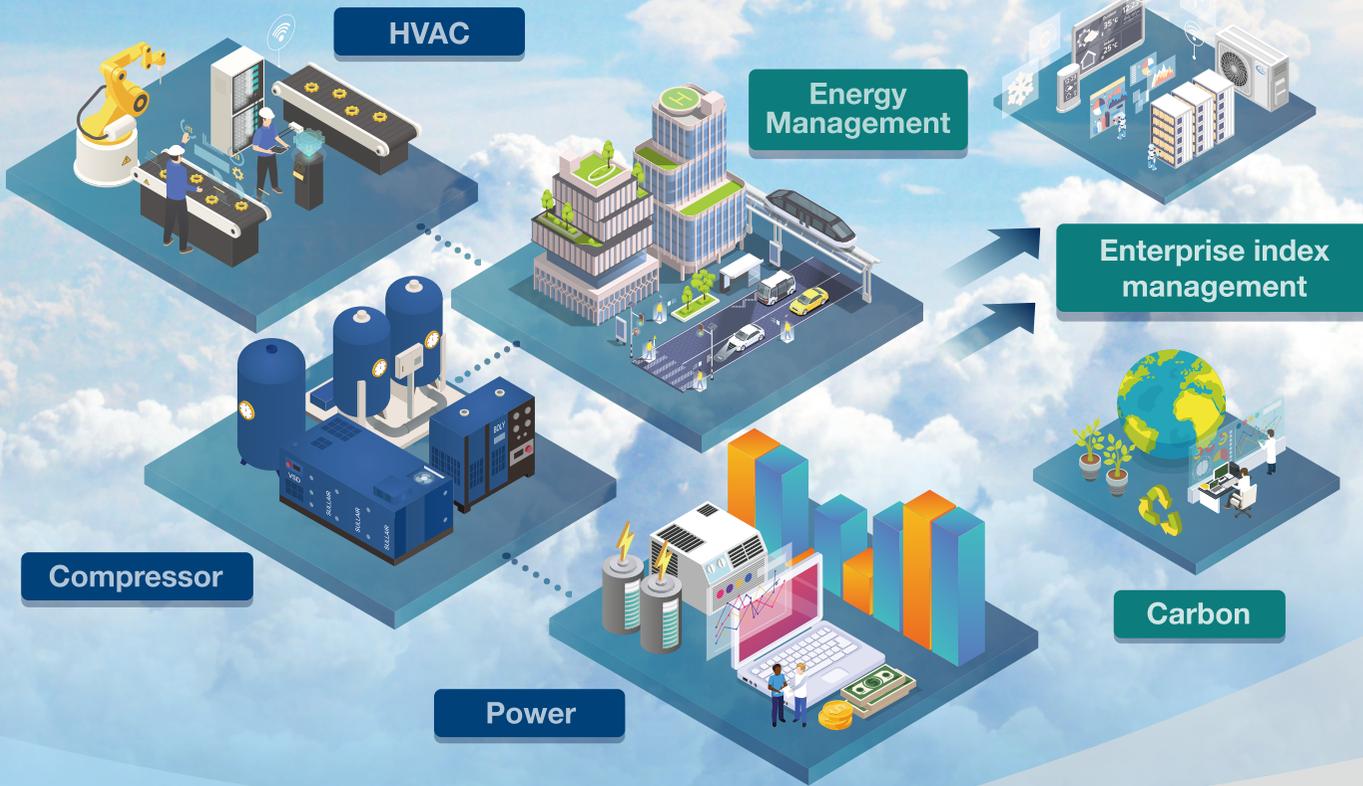
ADVANTECH

Enabling an Intelligent Planet

Advantech's iEMS intelligent energy management solution uses digital professional integration technology to provide functional solutions — including, HVAC energy efficiency management, air compressor energy efficiency management, carbon asset management, and energy consumption monitoring and management.

HVAC Energy Efficiency Management

Leveraging whole process intelligent management and control saves energy and reduces consumption.

Energy Management

It primarily monitors, compares, and manages both the demand and apportionment of water, electricity, and gas. Indeed, it helps enterprises complete their digital transformation — resulting in energy conservation and emission reduction.

Compressor Energy Efficiency Management

Air compressor energy efficiency management
The combination of compressed air system processing, energy-saving control, and predictive maintenance is achievable; and could improve system management efficiency.

Enterprise index management

Enterprise energy saving and carbon reduction index management
Review key energy indicators while applying energy-saving/green-energy strategies via a management-level perspective

Power Management

It is suitable for power supply and distribution monitoring and operation management of users in various industries.

Carbon asset management

This solution uses display, analysis, and evaluation perspectives to help enterprises self-manage their carbon assets and achieve carbon neutrality goals.

Explore iEMS Solution

Cycling with Advantech for Grateful Partnerships

Celebrate Advantech's 40th anniversary by cycling with us in over 40 cities worldwide

Shanghai . Shenzhen . Bangkok . Singapore . Tokyo . Munich . Cincinnati . Mexico City . Kunshan . Hoi An . London . Warsaw . Xi'an . Nogata . Guangzhou . Gimpo . Beijing . Eindhoven . Osaka . Bangalore . Suzhou . Kadima-Zoran . Istanbul . Taichung . Penang . Melbourne . Milan . São Paulo . Kaohsiung .Breda . Paris . Madrid . Stockholm . Irvine . Taipei and more...

ADVANTECH
Enabling an Intelligent Planet

Cycling with Advantech for Grateful Partnerships

In order to celebrate Advantech's 40th Anniversary, we will hold a cycling program in over 40 cities worldwide to communicate our altruistic LITA philosophy and to bring Advantech worldwide members and partners together to realize Advantech's corporate vision of "Enabling an Intelligent Planet".

為迎接研華40周年，並傳承研華的利他、專注、團隊合作與人才培育等核心價值觀，我們將透過Cycling with Advantech for Grateful Partnerships 腳踏車活動串連全球，落實利他精神與企業社會責任，並與全球夥伴攜手轉動研華智能地球推手的企業願景。

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