

# 2018 Arcadyan Corporation Social Responsibility Report

## I. Letters from President

“Technical innovation, people-oriented, self-transcendence, customer-oriented”. A corporate sustainable commitment that is taken from the society and use to the society.

It is still a severe year for internet communication industries in 2018. The internet communication industries also face multi-challenges, including: Trade between China and the United States raises additional tariffs and raises production costs at the tariff level; the shortage of materials and prices at the supply chain level; Euro and US dollar exchange rates fluctuate rapidly at the financial level; getting more and more serious price competition at the industrial level. Therefore, Arcadyan is planning to establish a manufacturing center in Vietnam in 2018 to help customers reduce the impact of trade wars and appropriately spread the risks of overseas production bases. Moreover, technical cooperation with chip manufacturers and central manufacturers to ensure product technology and functional leadership, and cooperation to open up the market. With the concerted efforts of all colleagues, Arcadyan has achieved outstanding results in breaking the highest record of previous years in 2018.

The main products of Arcadyan business includes broadband network access products, wireless local area network products, digital home multimedia applications, mobile broadband products and wireless audio and video products, especially the total shipments of integrated access devices (IAD) products ranked the top three in the world. The combined revenue in 2018 reached a high record of NT\$26.62 billion, which ranks the top of Taiwan’s internet communication industries, and showing the competitiveness of Arcadyan. In terms of new business development, advanced technology research and innovative investment, Arcadyan has also shown results. In the future, in addition to deepening the business, Arcadyan will continue to explore the development and integration of new technologies such as 5G, Internet of Things, Internet of Vehicles, Artificial Intelligence (AI) and Big Data Cloud Analysis to achieve a strategy

of extending the industry and maximizing operating efficiency. Moreover, fully cooperate with the technology suppliers in various markets to develop the local telecommunications market. It is expected that in 2019, with the maturity of the integration of new technologies and business models, the revenue share of Arcadyan innovative product line will be 5~10%.

The above results are showing the results and determination of Arcadyan practice of "technical innovation, people-oriented, self-transcendence, customer-oriented". Therefore, in a rapidly changing era, Arcadyan can stand on the ground and move forward steadily.

## **II. Key Performance in 2018**

As of 2018, Arcadyan has developed products including Whole Home Wi-Fi (Wi-Fi Mesh Network) smart home solution, integrated optimizing network (SON) 4G/LTE small base station, indoor and outdoor LTE router / Gateway, 802.11ax, 802.11ac (single, dual-band and tri-band) wireless network routers, 802.11ax, 802.11ac VDSL routers, repeaters of extend indoor wireless signal coverage, support High-resolution (4K), high dynamic range imaging (HDR), TV set-top (Android TV OTT/IP STB), GPON OLT/ONT fiber-optic broadband and other products.

Add and enhance the integrated functions of the new generation of IAD, such as ZigBee/Z-wave/ BLE/DECT ULE/ NFC technology integration, software intelligent recovery function, IEEE1905.1 multi-style interface integration management, 5G small base station, smart home/physical network gateway intercommunication, Artificial intelligence (AI) calculus / big new technology based on cloud analysis integration.

In addition, the environmental performance that Arcadyan achieve in 2018 is:

- Promoted TUV Green Mark environmental label certification, a total of four products certified and designed to be halogen-free,
- Obtained products approved of BSMI (Bureau of Standards, Metrology and Inspection),
- Take FSC (Forest Stewardship Council) production and marketing chain of packaging materials,

- CMRT (Conflict Minerals Reporting Template) in RMAP (Responsible Minerals Assurance Process) survey completion rate: 99%,
- Get friendly environmental design patent,
- Partner with Swisscom to promote the supplier development program
- Cooperate with BT to promote CSR audit - MSA Supply Chain Deep-dive Program,
- Received silver grade in E-Tasc / Ecovadis Self-Assessment,
- Participated in CDP Carbon Disclosure Project Climate Change Questionnaire since 2009, including questionnaires on water and supply chain carbon management, and actively participated in global environmental initiatives and actions,
- Arcadyan product 100% compliant with RoHS/REACH (SVHC) directive,
- WEEE product recycling ratio reach 96~100%,
- Certified by ISO 14006 Product Eco Design Management System.



### III. Arcadyan's Sustainable Business Vision

Environment is one of the important projects during Arcadyan operations and growth process. Only when the environment, economy, and society coexist, can Arcadyan have sustainable enterprises. In order to avoid negative impact on the environment and damage the

earth's ecological environment, in addition to setting environmental sustainability policies, as of 2018, Arcadyan has also introduced many related certifications such as TL9000, ISO9001 quality certification, ISO14001 environmental certification and OHSAS 18001 safety and health certification. At the same time, Arcadyan team pays special attention to product green design, has successfully introduced lead-free process, and has completed the control regulations for prohibited substances such as lead, cadmium, mercury and hexavalent chromium, and introduced ISO 14006 product ecological design management system to implement product eco-design and effectively track and control environmental performance by establishing these management systems.

Social responsibility is the commitment of Arcadyan to believe that enterprises should take it from society, use it in society, and continue to operate. Only when enterprises undertake social responsibilities and participate in social welfare activities can they create a good society. Arcadyan hold a "Corporate Social Responsibility Committee" and introduces SA8000 Social Responsibility Management System in China CNC Manufacturing Center (Kunshan). It actively responds and actively plans public welfare activities every year. The implementation activities include: caring for countryside students, after-school teaching, donate, shorten the gap between urban and rural areas; care for vulnerable groups, charity sales, fundraising, sponsorship, and support minority groups; cooperate with public welfare funds, participate, care, and feedback to the society. By participating in these charity activities, we deeply understand the efforts of Arcadyan's colleagues and feedback to the execution of the society, and demonstrate the commitment of Arcadyan to fulfill corporate social responsibility.

Employees are the company's greatest asset, and it is the core belief of Arcadyan is people-oriented, and provides a healthy and safe workplace environment, a complete career-training program and a competitive salary and welfare system. Arcadyan has introduced OHSAS18001 Safety and Health Certification, TOSHMS Taiwan Occupational Safety and Health Management System and Health Workplace Self-certification Mark (issued by Taiwan Health Promotion Administration, Ministry of Health and Welfare) to ensure that employees work under safely and

healthily environment. Arcadyan also cares and communicates to understand the needs of employees, and organizes various activities to promote health for employees to develop their strengths, take into consideration for health, and improve the quality of work and life. °

In order to respond to UN Sustainable Development Goals (SDGs) and continue Arcadyan commitment of the company to the environment, society and the economy, Arcadyan will focus on the following key objectives and conscientiously facing the upcoming challenges:

(1) Actively respond to the 17 goals of UN SDGs and promote economic, social and environmental related policies and activities.

(2) Pay attention to climate change mitigation and adjustment, continue to promote and implement product eco-design and green design, and use innovative technology to mitigate environmental impacts that caused by climate change and improve product safety.

(3) Promote corporate social responsibility management processes and organizational performance, strengthen internal corporate governance, revise environmental sustainability policies, and work with external customers to promote corporate social responsibility policies that comply with international norms. Carry on the concept of sustainability into Arcadyan corporate culture.

Arcadyan believe that the principle of sustainable business is commitment. Arcadyan promises that we will be a responsible enterprise based on our existing core competence and competitive advantage. Therefore, Arcadyan take the spirit of "Technical innovation, people-oriented, self-transcendence, customer-oriented" to set the policy of Arcadyan corporate social responsibility is:

- Provide customers with the services that include innovative products and technologies, and integrated upstream and downstream supply chain resources.
- Protect human rights and labor rights, establish good labor relations, and provide a healthy and safe working environment for employees.
- Effectively integrate resources and take responsibility for economic, social and

environmental impacts.

- Feedback to society with the practical actions of “coexistence, common glory, and common good “to create a better future.

#### IV. Communication with Interested Parties

##### 1. Identification of Important Interested Parties

Enterprises must collect the opinions of interested groups and understand their concerns as an important basis for the sustainable development of enterprises. Arcadyan values the opinions of all interested groups and seeks to correct the direction of sustainable development by collecting feedback suggestions.

CSR team refers to the relevant information that listed in industries and selects the interested groups that be contacted by each department. Then according to the weights to select the interested groups are shareholders, customers, employees, suppliers, government agencies and Non-Governmental Organization. Six categories of intellectual interests, and maintain a smooth communication channel with these interested groups.

##### 2. Interested Parties’ Communication Channels

Interested groups	Communication Channels	Frequency	Purpose of Communication Channels	Issues Response
Shareholders- Investors, shareholders, and banks	Shareholders’ meeting	Yearly	1. Business performance 2. Dividend policy 3. Corporate governance 4. Industry trends 5. Future prospects	Reply according to the annual report and current status
	Investor seminar	Yearly		According to relevant department’s comment to reply
	Company Website - Shareholder Service Area or Speaker's Mailbox and Phone	Monthly or Unscheduled scheduled		
Customer- Foreign and domestic customers	Regular communication and discussion conference	Monthly or Unscheduled	1. Product Information and Services 2. Product delivery and production capacity 3. Confidential Information Protection	Refer 9. Quality Management and Customer Service
	Email discussion			
	Customer satisfaction survey			
	Customer Audits			
Employees- Employees, foreign employees, and working students	Labor meeting	Quarterly	Promote labor-management cooperation, set employee-related labor conditions, benefits, and work	Discussions and resolutions at regular meetings based on opinions or proposals that collected by

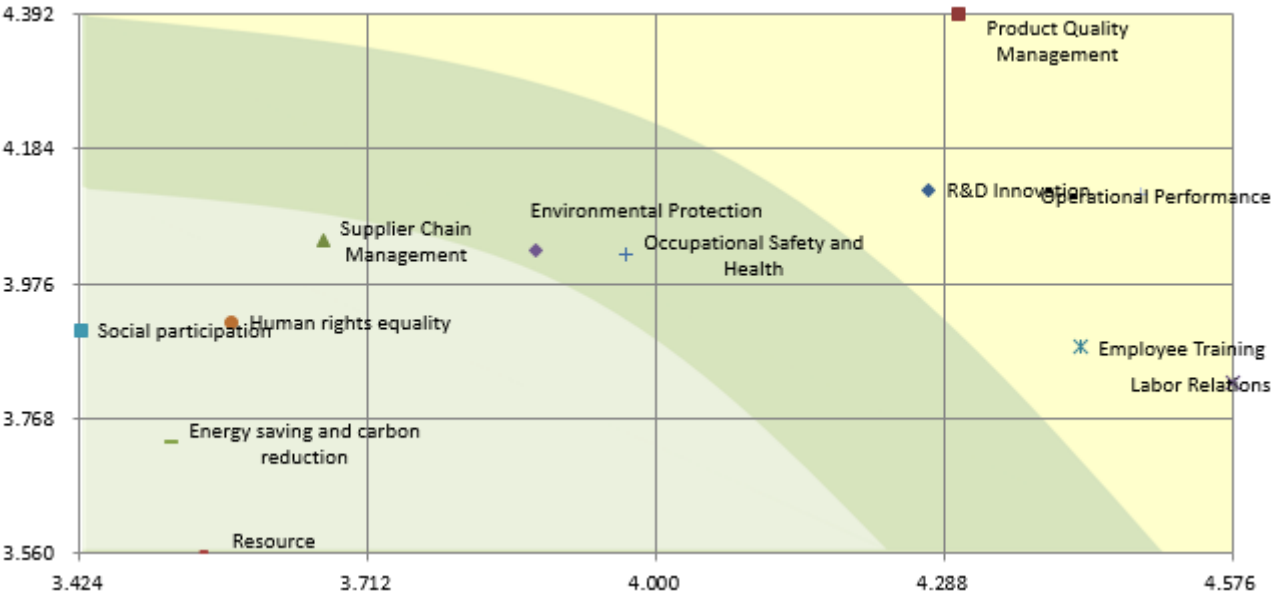
			rules	employee representatives
	Welfare committee		Staff welfare planning, fund allocation, and other relevant employee welfare matters	Discussed and resolved by regular welfare committee meetings
	Arc-HR Employee-website	Unscheduled	Develop communication skills and abilities and to promote two-way communication	Provide training resources based on employee needs
	Performance evaluation	Semiannual	Communicate work KPI through an electronic system to improve work efficiency	The supervisor gives feedback or communication based on employee's reflected matters.
	Internal BBS platform	Unscheduled	Announce important company news, and provide a contact way for employees to feedback their opinions	Improve or respond based on employees' feedback
	Sexual harassment appeal line		Provide a dedicated complaints line	Properly disposed for case by case
<b>Suppliers-</b> Suppliers, contractors, outsourcers, human resources agents and other partners	ACCBUY Supplier electronic platform and communication meeting	Unscheduled	1. Component delivery and quality 2. Component price 3. Supply Chain Management	Refer section 6 Supplier Chain
	Supplier evaluation system	Monthly		
<b>Government -</b> Competent authority, county and city government, fire department, environmental protection bureau, and police station	Participate in regulatory seminars	Unscheduled	1. Occupational safety and health 2. Social responsibility 3. Corporate governance	Compliance with regulations
	Actively participate in social welfare and implement green environmental protection			
	Publish relevant information on the public information observatory and company website			
<b>NGO Group</b>	E-Mail	Quarterly or Unscheduled	Donate or participate in activities	
	Communication software			
	Events or meeting			

### 3. Identification of Major Topics and Concerns

For the main interested groups, Arcadyan will take the questionnaires to understand the concerns of interested groups, in addition to the information collection by various communication

channels and feedback mailboxes. The topics are mainly based on the topics of the Global Reporting Initiative (GRI), and send to various interested groups in a questionnaire based on 12 topics that including domestic and international trends and issues of common concern to the electronics industry. The number of valid questionnaires collected was 175, and the CSR group discussed the weight of each stakeholder’s importance to the importance of intellectual property, multiplied by the concerns of various stakeholders on major issues, and then calculate the total level of concern for each issue of Arcadyan as the "horizontal coordinate".

And take Arcadyan’s operation, we give a score to the overall economic, social and environmental impacts of the major issues, and add the total number as the "ordinate" to draw the XY scatter plot as follows. According to the high-level concerns of interested groups and the high-impact XY cross-section of economic, social and environmental impacts to compare Arcadyan industrial characteristics. According to the highest level of concern and the highest level of impact, we compiled "Operational Performance", " R&D Innovation ", "Product Quality Management", "Labor Relations", "Employee Training", "Occupational Safety and Health" and "Environmental Protection" seven major GRI issues is revealed. The remaining topics have lower priority, but some of them also present their relevant policies and results in this report.





## V. Compilation Instructions

### 1. Scope of CSR Report

In 2018, Arcadyan Corporate Social Responsibility Report covers Taiwan headquarters (Hsinchu) and China CNC manufacturing center (Kunshan). The entity's subsidiaries that disclosed in Financial Report are located in the United States, Germany, China, Korea, Brazil, the United Kingdom, and Australia.

### 2. Major Topic List

In 2018, according to the results of the survey of interested parties and GRI Standards, seven major items were selected according to the characteristics of Arcadyan, the degree of the interested groups and the version of the GRI issue. The major theme results were approved by Arcadyan Corporate Social Responsibility Committee and listed as the major issue in 2018 Corporate Social Responsibility Report.

Major Topic	GRI Index	Index Description	Major Topic Description	Refer	
Operational Performance	Economic performance	201	Expose the direct economic value and distributed of Arcadyan to investors / shareholders to know more about Arcadyan's operations.	Economic-related performance is the most concerned issue for all stakeholders. Arcadyan exposes the operational performance and market competitiveness information for 2017 and continues to strengthen the proportion of local procurement.	20~21, 28
	Market status	202	A comparison of personnel with local minimum wages to show Arcadyan's salary competitiveness and its impact on local labor market pay.		57~58
R&D Innovation	Arcadyan R&D employee account for about 60% of Arcadyan's total number. Through a strong R&D team, we ensure that Arcadyan maintains a competitive advantage in a rapidly changing environment of technology and specifications.			29~34	
Product Quality Management	Marketing and labeling	417	Product and service information and labeling requirements.	Customer satisfaction is the focus of Arcadyan's sustainable operation. To guarantee customer information security and product quality for sustainable cooperation	35~39
	Customer privacy	418	Explain Arcadyan's management mechanism for customer privacy protection and provide a channel for customer complaints.		39~40
Labor Relations	Labor relationship	401	Expose the number of new employees, employees leaving, and parental leave for stakeholders to understand Arcadyan employees' status.	Arcadyan focuses on labor-related, salary, welfare, occupational health and safety, and equal treatment of all employees.	56~57, 60

		402	Arcadyan operation of group agreement		54
	No discrimination	406	Explain whether there are incidents of discrimination and what improvements Arcadyan has taken.	Human rights and ethics are the foundation of business development. Arcadyan compliance the principles of fair and anti-corruption and comply with RBA and international human rights organizations and labor policies. It must not discriminate against others for any reason, c no human trafficking, deception, or forced labor; nor employ labor from an agency that forces others to work. Whether the supplier complies with this relevant regulation is also a key project for Arcadyan to select new suppliers and annual audits.	55~56, 63
	Anti-corruption	205	Communication and training of anti-corruption policies and procedures.		22~23
<b>Employee Training</b>	Training and education	404	Expose the guidelines for training, improving employee capability, performance and career development.	Arcadyan focuses on labor and employment, salary and welfare, occupational health and safety, and equal treatment of all Arcadyan employees.	60~62
	Employee diversity and equal opportunities	405	Report on the management policy of employee diversity and equal opportunity. Describe the equality opportunities, equal pay for equal work, and basic salary ratios for women and men.		56~57
<b>Occupational Safety and Health</b>	Occupational safety	403	Explain the occupational injury categories, injuries, occupational diseases, lost working days, absenteeism, etc., and the number of deaths due to work.		64~69
<b>Environmental Protection</b>	Waste water and waste	306	The amount of water discharged according to the destination and waste disposal method of product.	The environmental issue is the concern of all customers and employees. Energy and emissions are the focus of Arcadyan interested parties. Therefore, Arcadyan phase-in ISO 14006 products eco-design to monitor emissions during the product life cycle.	41~42
	Compliance with environmental protection	307	Describe the related management mechanisms for monitor whether Arcadyan have any violation of environmental regulations.		42~44
	Supplier Environmental Assessment	308	The environmental standards for Arcadyan to survey new suppliers		25~28

### **3. Report Publication**

Arcadyan issued the first Corporate Social Responsibility Report (hereinafter referred to as CSR Report) in 2018, and will publish the Corporate Social Responsibility Report in accordance with the company's business projects every year. The information presented in this report is for the activities performance in 2018. This report is available in Traditional Chinese, Simplified Chinese and English and is available on Arcadyan website (<http://www.arcadyan.com.tw>) for download by interested parties.

### **4. Feedback**

If you have any suggestions, please contact us or leave a message on Arcadyan website "Contact US" area, we will reply as soon as possible.

Address: No.8, Sec.2, Guangfu Rd., Hsinchu City 30071, Taiwan, R.O.C.

Tel: (03) 572-7000 CSRT Team

Website: <http://www.arcadyan.com.tw>

### **5. Report Drafting Principles**

Arcadyan Corporate Social Responsibility Report is based on the sustainability reporting guidelines (hereinafter referred to as GRI Standards) that published by Global Reporting Initiative (GRI) in 2016. The content includes four major contents of the reporting principle: Inclusive of interested parties, sustainable, significant, and complete; and six qualities included accuracy, balance, clarity, comparability, reliability, and timeliness. This report follows the core options and combine Arcadyan annual sustainable goals and concerns of interested parties.

### **6. Data Management**

- Financial data: Refer financial reports from accountants' verification
- Product carbon footprint verification (Green Mark): TUV Rheinland
- Quality Management System (ISO 9001: 2015 / TL 9000: 2016): AFNOR Asia Ltd.
- Environment Management System (ISO 14001: 2015): AFNOR Asia Ltd.
- Product Eco-design Management System (ISO 14006: 2011): AFNOR Asia Ltd.
- Occupational Health and Safety Management Systems (OHSAS 18001: 2007 / TOSHMS: 2011):

AFNOR Asia Ltd.

- Business Continuity Management System (ISO 22301: 2012): AFNOR Asia Ltd.
- Information Security & Information Risk Management System (ISO 27001: 2013 / ISO 27005: 2011): AFNOR Asia Ltd.

## VI. Operation Overview

### 1. Organization Products and Services

Arcadyan founded in 2003, is the first professional, intelligent network terminal equipment company that integrates broadband, multimedia, wireless and Internet communication protocols in Taiwan. Arcadyan mainly researches, develops, manufactures and sells broadband network access products, wireless local area network products, digital home multimedia applications, mobile broadband products and wireless audio and video products. At present, Arcadyan focuses on the development of access/routing products for customer premises equipment, and combines technologies such as voice and multimedia to provide integrated digital home, mobile broadband, wireless audio and video products and multimedia gateways. Arcadyan's product development concept is based on user's point of view. Therefore, the product development is based on leading technology, providing a user-friendly operation interface to ensure user satisfaction. Arcadyan's professional R&D team combines internal R&D talents and industry experts to develop advanced platforms and fully functional products to provide complete services to customers. Its business share is:

Item	business share Ratio
Broadband wireless gateway	69.3%
Wireless network products	28.9%
Others	1.8%
<b>Total</b>	<b>100%</b>

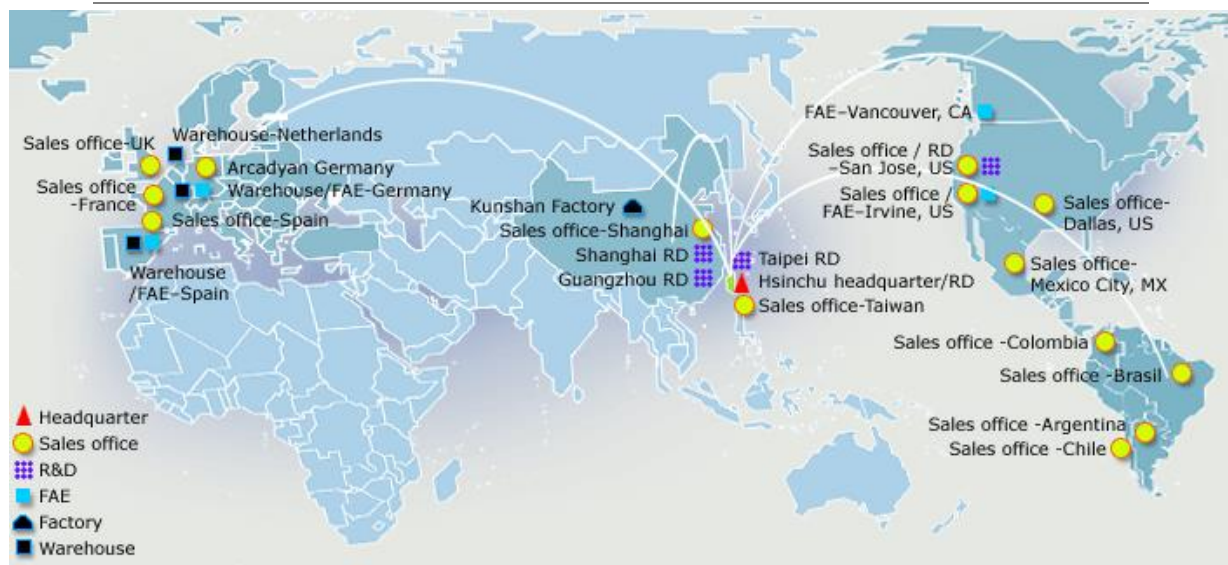
Arcadyan takes the development of xDSL IAD as its core advantage, mainly combining VoIP and multimedia application services. The new products of Arcadyan's current project development are:

Product Category	Content
Broadband gateway products	Based on xDSL products and multi-functional integrated access device (IAD) product development, it combines IoT, VoIP and multimedia application services.
Wireless network products	Based on 802.11ax technology to develop various modules and router products.
Digital home multimedia application products	Based on the development of Android STB to provide telecom companies or video service providers with on-board products and services.

## 2. Operating Bases and Markets for Providing Services

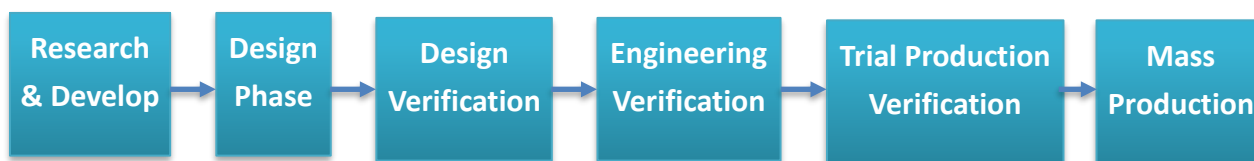
Arcadyan's products are sold worldwide and in a globalized manner, providing complete and rapid service. Arcadyan is headquartered in Hsinchu Science Park with R&D centers and technical support centers in regions such as Taiwan, China and the US to keep up with new technological developments. We also have sales offices in Europe and the Americas to monitor market demand as well as provide customers with more rapid technical consultations and after-sales service.

Headquarters:	Hsinchu, Taiwan
Manufacturing Center:	Kunshan, China
Sales base:	Taiwan, China, Japan, Korea, Europe, America, and Australia
R&D Centers:	Taipei, Hsinchu, Shanghai, and Guangdong
Technical Support:	Taiwan, Spain, Germany, US, and Canada



Arcadyan's business includes smart network terminal equipment that integrates broadband, multimedia, wireless, and Internet communication protocols, and provides access to the wireless network of the client. At present, Arcadyan focus RD on the access and routing products of R&D client

devices, and focus on R&D, IAD, xDSL, routers and wireless network cards for VoIP, data transmission and multimedia integration applications. The main production process is:



### 3. Governance Structure

Arcadyan concern operational transparency and corporate governance, and in accordance with "Procedures of the Board of Directors of the Public Offering Company", Arcadyan has set a standard for the Board of Directors and expose the attend status at the public information observatory and disclosed the major resolutions of the board of directors on Arcadyan website. Arcadyan set the "Code of Practice for Corporate Governance" in accordance with the "Code of Practice for Corporate Governance on the Listed Companies" and publish relevant content on Arcadyan website and public information observatory. In order to establish an effective corporate governance structure, strengthen the supervision of the board of directors, protect the interests of shareholders, and implement the principle of good faith management, Arcadyan develop various systems and methods, implement the spirit of corporate governance, to improve operational performance and practice Arcadyan sustainable operation of enterprises.

The board of directors is Arcadyan's highest governance center and the major business decision-making. Its responsibilities include appointing and supervising Arcadyan's management, supervising business performance, preventing conflicts of interest, ensuring that Arcadyan follows various laws and regulations, and protect shareholders' rights and interests.

Arcadyan selects three independent directors at the shareholders' meeting and these three independent directors form a compensation committee to assist in the assessment and approval of directors and managers' remuneration. To combine the distribution of remuneration with the performance of individuals and company operations to achieve the rationality of remuneration and attract outstanding talents.

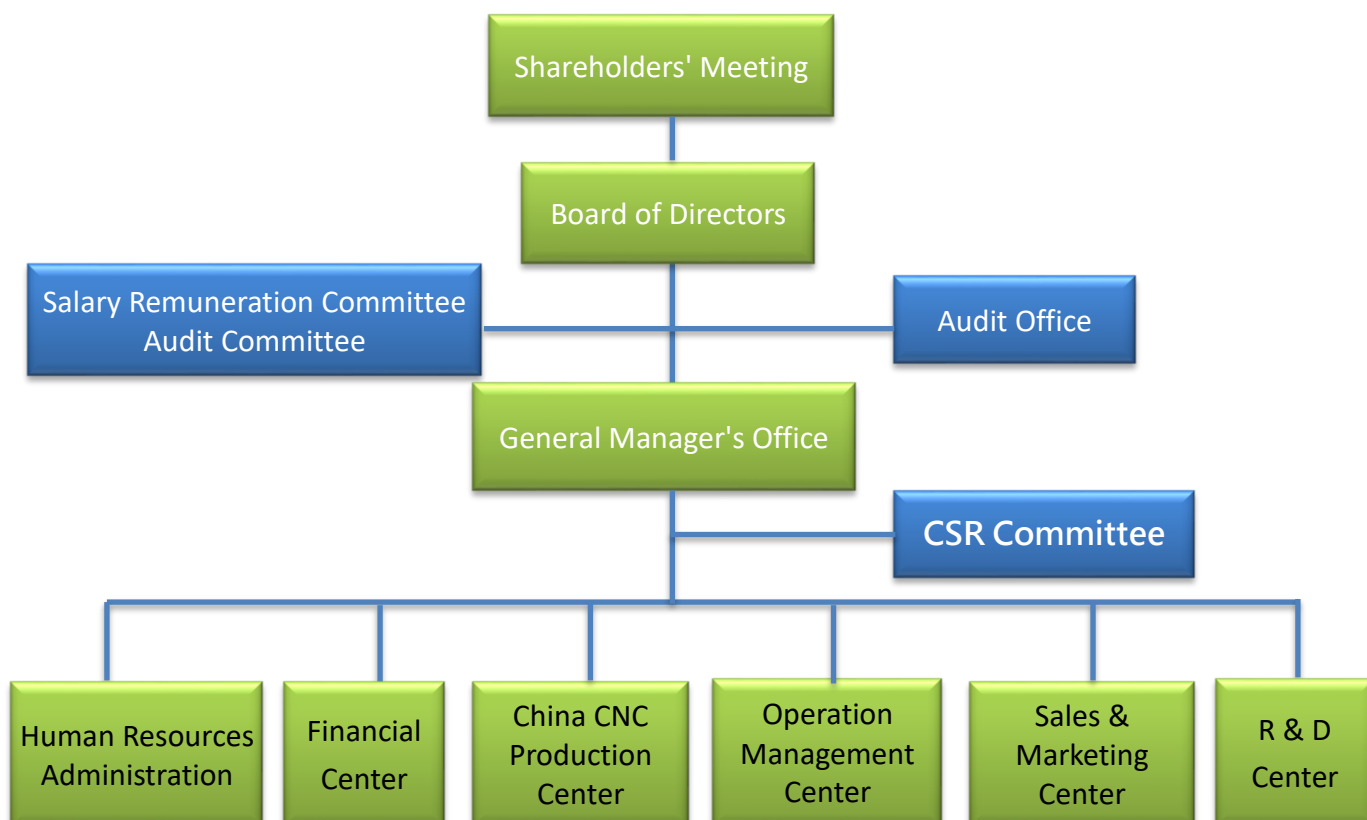
Arcadyan independent audit committee is composed of three independent directors. They meet at least once per quarter, with the main purpose of supervision of the following matters:

Appropriate opinions on Arcadyan's financial statements, selection and dismissal of accountants, effective implementation of internal control, compliance with relevant laws and regulations, control of Arcadyan existence or potential risks, etc.

a. Director and Supervisor Information

<b>Title</b>	<b>Representative</b>	<b>Main Qualifications and Experience</b>
Direct	Compal Communications, Inc.	N/A
Chairman	Compal Communications, Inc. Jui-Tsung Chen	Department of Electrical Engineering, National Cheng Kung University Vice Chairman and Strategy Director of Compal Communications, Inc.
Director	Compal Communications, Inc. Zong-Bin Weng	Master of Institute of Management Science, National Chiao Tung University Director, Executive Vice President of Compal Communications, Inc.
Director	Compal Communications, Inc. Sheng-Hua Peng	Master of Institute of Electrical Engineering, National Taiwan University Director, Executive Vice president of Compal Communications, Inc.
Director	Compal Communications, Inc. Zong-Bao Liu	Master of Institute of Advanced Management, National Chiao Tung University Vice president of Arcadyan Technology Corporation
Independent Director	Ying-Zhen Li	Doctor of Institute of Electrical Engineering National Taiwan University Chairman of Litemax Electronics Inc.
Independent Director	Qing-Zhang Wen	Doctor of Institute of Electrical Engineering, Pennsylvania State University Chairman of New E Materials Co., Ltd
Independent Director	Wen-An Yang	Master of Business National Taiwan University Chairman of Deben Consulting Co., Ltd.
Director	Zhe-He Wei	Doctor of Institute of Electrical Engineering, University of Washington Honorary Professor of National Chiao Tung University

b. Organization Structure:



c. Business Operation for Main Departments

Department	Main Job	Implementation
Salary Remuneration Committee	Establish and regularly review policies, systems, standards and structures for performance evaluation and compensation for directors and managers.	The Salary Remuneration Committee meets at least twice a year to assist in assessing and verifying the remuneration levels of directors and managers. The salary payment considers the performance of individuals and companies, to achieve the rationality of salary distribution and attracts outstanding talents. to achieve the rationality of salary distribution and attract outstanding talents.
Audit Committee	The main purpose of supervision of the following matters: <ol style="list-style-type: none"> <li>Appropriate expression of Arcadyan's financial statements °</li> <li>Accountant selection, dismissal and performance evaluation.</li> <li>Effective implementation of Arcadyan internal control.</li> </ol>	Arcadyan's shareholders meeting will select three independent directors, and the three independent directors will form an audit committee, which will meet at least once a quarter. Its main functions are to audit Arcadyan's financial statements, internal audit, internal control system, significant assets, commodity transactions, loan loans, endorsements or guarantees, the appointment, dismissal, remuneration and independent evaluation of the accountant, as well as the appointment and



	<ul style="list-style-type: none"> <li>4. Arcadyan follows relevant laws and regulations °</li> <li>5. Control the existence or potential risks of Arcadyan.</li> </ul>	dismissal of the financial, accounting or internal audit supervisors, and the acceptance of the reported cases, and periodic review Arcadyan's legal compliance
Audit Office	Responsible for the planning, execution and improvement of Arcadyan's internal audit business.	
General Manager's Office	Set up Arcadyan's operational objectives, direct and supervise Arcadyan's overall business execution.	
R & D Center	Responsible for Arcadyan's new technology and new product development, including feasibility assessment of new product development, test program development, technology integration and other services.	
Sales & Marketing Center	<ul style="list-style-type: none"> <li>1. Promotion and development of sales business.</li> <li>2. Customer service communication window.</li> <li>3. Marketing strategy and business management.</li> <li>4. Design, planning and execution of marketing projects.</li> </ul>	
Operation Management Center	<ul style="list-style-type: none"> <li>1. Production management and control project progress.</li> <li>2. Coordinate R&amp;D and production center, arrange trial production to mass production.</li> <li>3. Operation managements such as procurement, import and export, production management, and material management.</li> <li>4. Product engineering and process design management, product quality management and verification.</li> <li>5. Network environment construction and management, and set up and maintenance of computer mainframes and supporting equipment.</li> <li>6. ERP/MES and other online system planning and integration maintenance, process function development and feasibility study.</li> <li>7. Planning, design and implementation of legal intelligence.</li> <li>8. Assist in the cost control of products and procurement to improve overall profitability.</li> </ul>	
China CNC Production Center	Product production	
Financial Center	<ul style="list-style-type: none"> <li>1. Handling accounting and tax, auditing and preparation of financial statements.</li> <li>2. Budgeting, variance analysis and control.</li> <li>3. Financial management, preparation of short, medium and long-term capital acquisition, scheduling and other plans.</li> <li>4. Cost settlement and analysis, inventory planning.</li> </ul>	
Human Resources Administration	<ul style="list-style-type: none"> <li>1. Set up, revision and implement Arcadyan's management system.</li> <li>2. Set up employee performance assessment, promotion and retirement.</li> <li>3. Education and training planning and implementation.</li> <li>4. Salary accounting, labor and health insurance, etc.</li> <li>5. Administrative General Affairs Management.</li> </ul>	

#### 4. **Organization**

Arcadyan Headquarters is located nearby to Hsinchu Science Park and has sales and service locations in major countries around the world to provide fast and flexible support and services. There are about 2,600 employees (about 600 people in Taiwan headquarters (Hsinchu); about 2,000 people in the China CNC manufacturing center (Kunshan), with the annual volume of business more than NT\$26.6 billion. Arcadyan's management team is elite in the industry. They have not only held leadership roles in various fields of expertise in the Internet communications industry, but also have more than 15 years of experience.

##### a. **R & D capabilities:**

Exceptional R&D capacity is the key to Arcadyan's continued competitive edge. To keep up with technological innovations and bring products to the markets as soon as possible, Arcadyan set up R&D centers in Taipei, Hsinchu, Shanghai, and Guangdong. Arcadyan also have technical support centers in Taiwan, Spain, Germany, US and Canada to provide quickly technical consultation and after-sales service.

Software development is Arcadyan's core strength. Through the development software platform, it can quickly convert complex product content into simple models to quickly respond to market demands. Our own proprietary application software supports Triple play, firewall functions, DLNA devices, remote management, Auto Provision and IPv6. Arcadyan have established a strong sales record in the telecom market.

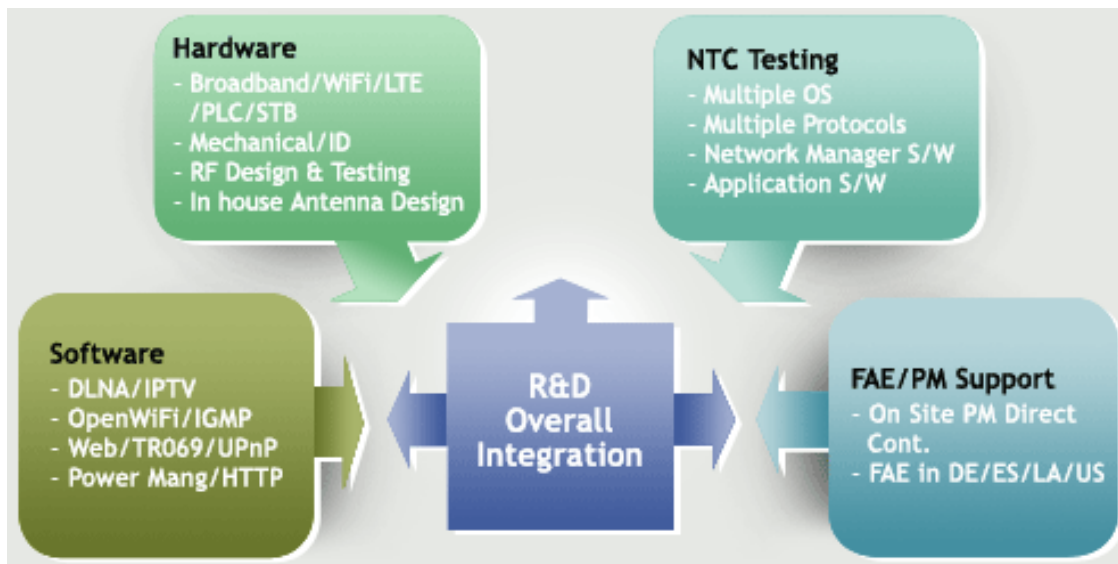
The antenna is a key component used for transmitting and receiving electromagnetic energy in wireless transmission systems. As a leader in wireless networking products, Arcadyan places a strong emphasis on antenna design and development. We have established a dedicated department for developing products that offer high quality and transmission performance. Arcadyan has now secured over 30 local and overseas patents on antenna design, including different antenna designs, radio frequency output control methods, testing systems for wireless devices and test methodology.

To ensure the quality and functionality of our products, all Arcadyan products must undergo

a strict testing procedure before mass production. These include:

Engineering Verification Test	Design Verification Test
✓ Thermal and 4corner test	✓ Regulatory test
✓ Functional test	✓ Reliability test
✓ Power measurement	✓ 3 <sup>rd</sup> party certification
✓ Signal quality test	
✓ Conformance test	
✓ Interoperability test	

R&D personnel account for 60% of all employees. The skilled R&D teams ensure that Arcadyan maintains its competitive edge in an environment with rapidly evolving technologies and standards.



**b. Manufacturing Center:**

Arcadyan's manufacturing center is located in the Kunshan Economic Development Zone of Jiangsu, China. The CNC manufacturing center (Kunshan) has 15 production lines with a monthly capacity of 3 million units. In order to continuously improve production and quality, Kunshan plant equipment is not only fully automated but also introduces the most advanced machinery and equipment to ensure that Arcadyan's production quality and efficiency meet and even exceed customer expectations. The Kunshan Plant also adopts the management thinking of "6-Sigma Scheme" to implement the concept of comprehensive quality control and continuous improvement.

**c. Quality Management:**

For quality management, Arcadyan focuses on the design review of the new product development phase (NPI) in order to identify potential quality issues as early as possible. Our philosophy - Prevention is much better than correction:

Quality Management	Implementation	
Design Review	Independent Design Review Committee to conduct design reviews	
Quality testing at each stage	Including NTC (Network Testing Center) / EIT (Engineering Integration Testing) /QE Reliability Testing / MFG ongoing reliability testing / Quality Gate Testing to identify potential quality issues during DVT / EVT / PVT / MP stages.	
	DVT- Design verification phase	Design review, manufacturability review, EIT/NTC
	EVT- Engineering verification phase	R&D stage function, performance test and product functions, certification test for NTC/EIT/QE reliability.
	PVT - Productive verification phase	Quality Gate Test
	Mass Production	Ongoing Reliability Testing
Production Monitoring System	Comprehensive Shop Floor Information System for quality data collection.	
8D Systematic process	8-D approach for root cause identification and issue prevention.	
6 - Sigma	6- $\delta$ (DFSS / DMAIC) schemes to enhance overall process excellence (from Design to Manufacturing).	

## 5. Distribution of Arcadyan Direct Economic Value

Unit: NT\$1,000

Item	2016	2017	2018
Capital amount	1,891,190	1,891,190	1,936,190
Revenue	23,910,479	20,110,209	26,621,262
Operating cost	20,044,635	17,308,220	23,465,062
Profit	1,373,002	650,310	880,183
Earnings per share (EPS)	7.19	3.21	4.61
Assets	15,217,137	15,581,848	21,253,480
Liabilities	6,121,974	6,657,441	11,779,682
Shareholders' rights	9,095,163	8,924,407	9,473,798
Dividend	3.9	2.0	3.5
Total salary (individual)	855,747	815,660	973,080
Income tax	324,943	137,018	237,841
The amount of tax deducted from development Research development and investment	60,561	47,315	49,896

Item	2016	2017	2018
EU	50%	62%	62%
AP & Others	19%	22%	25%
US	31%	16%	13%



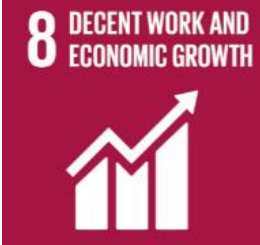


## 6. External Initiatives

As an important member of the global environmental citizenship, Arcadyan actively involved in global environmental initiatives and actions. Since 2009, Arcadyan has participated in CDP (formerly Carbon Disclosure Project) to disclose carbon management questionnaires, carbon reduction results, identification regulations and physical risks, and other carbon management questionnaires to strengthen the policy tools for climate change in response to climate change. Including resource depletion, resource shortages, climate change, sea level rise, etc., to reduce operational risks and costs, and further transform various risks into green recycling economy opportunities to improve the sustainability of business operations.

Since 2013, Arcadyan has obtained SA8000 (Social Accountability) certification at CNC Manufacturing Center to show to stakeholders Arcadyan's commitment to social responsibility. Provide employees with continuous improvement of working conditions; establish a healthy workplace, and effective employment communication. For suppliers, strengthen competitiveness, obtain brand orders, improve management capabilities, reduce additional costs, and establish a reliable supply chain and sustainable operation.

Arcadyan follows the Code of Conduct - Responsible Business Alliance (RBA) to implement self-assessment for labor, health & safety, environmental, ethics, management system, etc. and actively obtains international certification. In addition to increasing the trust of customers, employees and suppliers, Arcadyan also fulfill corporate responsibility for the environment, economy and society. Arcadyan deeply understand the responsibility and obligation to actively participate in the tasks of SDGs, and selects the following five goals related to Arcadyan's operations from the 17 Sustainable Development Goals (SDGs) proposed by the United Nations as a sustainable project. Arcadyan looking forward to the future society, can help more people and the environment, create less earth burden, and leave a better living environment for future

generations.

SDGs	Summary	Chapter Index
	<ul style="list-style-type: none"> <li>✚ Handling various health promotion activities</li> <li>✚ Regularly hold physical examinations for all employees</li> <li>✚ Disabling Frequency Rate (FR) and Disabling Severity Rate (SR) was 0.19.</li> <li>✚ Continue to promote the "Motherhood Care" project and set up a nursing room.</li> <li>✚ Parental leave retention rate 90.625%</li> </ul>	60, 64~69
	<ul style="list-style-type: none"> <li>✚ The average hours of staff training is 3.22 hours</li> <li>✚ Internal lecturer training program</li> <li>✚ Promote the Knowledge Sharing System (Content Sharing System, CSS)</li> </ul>	60~62
	<ul style="list-style-type: none"> <li>✚ Establish a complete and fair recruitment system</li> <li>✚ Follow RBA, prohibit the recruitment of child labor and ensure that no forced labor issues.</li> </ul>	21~22, 54~57
	<ul style="list-style-type: none"> <li>✚ China CNC manufacturing center conducts product life cycle inspection according to ISO14067</li> <li>✚ Conducts ISO14006 product eco-design</li> <li>✚ Carbon reduction reached 24,020 tons in 2017</li> </ul>	40~54
	<ul style="list-style-type: none"> <li>✚ Supplier meeting was held with a total of 85 suppliers and 120 participants.</li> <li>✚ Work with suppliers to promote corporate social responsibility and green materials issues.</li> <li>✚ Co-organize social participation and public welfare activities with local communities, NGOs, and governments</li> </ul>	22~28, 69~72

**7. Code of Conduct**

Arcadyan sets the "Staff Code of Conduct". When employees are engaged in daily work and business, they should comply with Arcadyan's business ethics policy, maintain Arcadyan's reputation, and gain the respect and trust from customers, suppliers and other industry people.

The main contents are:

- a. Employees should avoid any conflicts or possible effects between personal and company interests.
- b. For the suppliers, customers, and other personnel related to Arcadyan's business, must keep the highest standards of business ethics, and must not accept or give any gifts that affect business relationships and judgments. Any form of bribery is prohibited.
- c. Employees shall not disclose any Arcadyan confidential business information or intellectual property to any other person, manufacturer or company without authorization during employment and resignation term.

All employees are responsible for complying with this policy and related procedures, and managers are fully committed to ensuring that employees understand, accept and comply with relevant regulations.

#### **8. Membership of Association**

To meet the expectations of the society, Arcadyan actively participated in organizations such as the Taiwan Science Park Science and Industry Association, the High-tech Industry Salary Management Association and the Hsinchu Enterprise Managers Association, and attended the meeting to express the opinions, hoping to unite the strength of the industry and promote industrial exchange.

#### **9. Supply Chain**

Arcadyan continue to support business development and market competitiveness, and effectively manage and promote suppliers' quality, price, delivery, service, environmental and social responsibility performance, to develop the appropriate procurement policy, suppliers and co-operate responsible supply chain. Arcadyan also quarterly review the supplier performance, conduct supplier risk assessments, and conduct regular visits to suppliers. Arcadyan regards supplier management as one of the key actions to implement social responsibility. In addition to continuously requiring suppliers to improve the overall performance of quality, delivery, service and price, it also inducts customers required green product directives into suppliers' material inspection procedures and audit operations, and then implement the source management and the

continuous improvement cycle.

Arcadyan continues to promote corporate social responsibility programs, and guides suppliers to participate and follow. To encourage suppliers to meet delivery requirements, improve quality, and increase competitive advantage, Arcadyan also help suppliers to improve and strengthen their management of employee care, environmental protection, public safety environmental sanitation, and work closely together to create superior and competitive products to create a win-win supply chain management. To lead suppliers to grow together, Arcadyan also develops supply chain management practices and management measures, including new supplier evaluation, supplier management, supplier audit and supplier counseling to guide suppliers to become green supply chains and reduce supply chain risk.

<b>New Supplier Evaluation</b>	<b>Supplier Management</b>
In addition to the quality delivery and price of the product, it is also required to meet the requirements of the quality, environmental and safety and health laws as a qualified supplier.	Regular meetings to review and analyze various quality issues and propose effective improvement programs.
<b>Supplier Assistance</b>	<b>Supplier Audit</b>
Besides existing quality, environmental and management counseling, provide interactive management of information transfer with customers to get the latest and correct information.	<ul style="list-style-type: none"> <li>- To assess supplier's service, quality and delivery, for the supplier who fail to meet the standards are required to submit improvement report.</li> <li>- Regular audits for key suppliers, provide the non-compliance items for supplier improvement, to improve product quality; and re-audit the suppliers that with high quality abnormal frequencies, the supplier will be disqualified if the improvement actions still cannot reach the qualify score (less than 60 points).</li> </ul>

a. New Supplier Evaluation

Arcadyan Purchasing department requires suppliers to fill out “Supplier Evaluation Form” and provide relevant ISO certification documents. The assessment content includes quality, environment, engineering technology, green aspects, and conduct Supplier Corporate Social Responsibility (CSR) survey program that requires suppliers to meet "Arcadyan Supplier Code of Conduct”. When the average score of assessment results over 60% and green manufacturer's score



over 80%, the supplier will be classified as Approved Vendor List (AVL).

Arcadyan strives to fulfill corporate social responsibility and requires suppliers to pay attention to conflict minerals issues. Since 2010, the supplier chain and agents related to electronic and mechanical materials have been investigated and must promise not to use the metals mined and sold by mining areas controlled by armed groups, and expect to have a positive impact on conflict mineral issues through the self-requirements and constraints of industrial supply chain. In 2015, Arcadyan officially formulated a conflict minerals policy, requiring suppliers to sign "EICC Conflict Minerals Announcement", or suppliers to provide their conflict minerals policy for conflict minerals investigations; and continue to track RMI (Responsible Minerals Initiative) qualified smelters list after the investigation. To promote important updates on Arcadyan procurement system to ensure mineral safety in the supply chain. Arcadyan expects that all manufacturers in the electronic supply chain will control the use of any conflict minerals to sever any inhumane and exploitative events and fulfill social responsibilities for society, environment and human rights. If the supplier's products are found to contain with conflict minerals, Arcadyan will take necessary measures and stop using the conflict minerals.

Arcadyan Conflict Minerals Policy
Operate with social and environmental responsibility considerations; advocates not buying conflict minerals from conflict zones.
Conflict minerals originating from the Democratic Republic of the Congo (DRC) and its neighboring countries are not used; formulating conflict minerals policy and conflict minerals are not required to be used indirectly or directly in the raw materials supplied by suppliers, and must follow the requirements for conflict-free minerals.
Check the source of the metal used and fill the questionnaire or sign the statement; expect the supplier to fully use the approved qualified smelter or request an existing smelter for verification.

Arcadyan also requires all new suppliers to sign "Supplier Corporate Social Responsibility Commitment" to declare that they are fulfilling social responsibility commitments, guarantee and promise to prohibit child labor, prohibit forced labor, implement occupational safety and health management, anti-bribery and anti-corruption, Corruption, fair trade, support for labor freedom of association, labor agreement rights and other matters.

b. Supplier Management

Arcadyan regularly evaluate suppliers based on supplier's delivery status, and report to

“Supplier Score Summary” for supplier management. The supplier's monthly quality rating that is evaluated as of C or D, Arcadyan will issue Warning Notice requires the supplier to provide improvement plan and requires to reach rating of B or above in next month. If the supplier still fails to meet the target, Arcadyan will assign personnel for on-site audit.

Quality				Service
70%				30%
<b>Incoming Material Quality-</b> According to supplier's incoming inspection status	<b>SCAR-</b> According to supplier SCAR report respond time and validity	<b>In-process Quality-</b> According to supplier's materials quality status in process	<b>Customer Complain-</b> Calculate the number of customer complaints on the client side based on supplier's materials	Evaluate the status of complaint handling, exchange of goods, transfer of goods, sample request, delivery status, etc.
40%	30%	20%	10%	
Grade	Score		Grade	Score
<b>A</b>	95 ≤ Score		<b>B</b>	80 ≤ Score < 95
<b>C</b>	65 ≤ Score < 80		<b>D</b>	Score < 65

**c. Supplier Audit**

To co-work with supplier to provide better products, Arcadyan plan annual audit schedule and implement on-site audit for key suppliers. The audit contents guarantee for shipment quality, handling of environmental substances, detection methods and specifications of environmentally-hazardous substance, environment internal audit plans, communication and promotion of environmental substances information, testing equipment, and ISO9001 / ISO14001 / OHSAS18001 system certification. For suppliers whose audit results are not meet the target, besides to provide clear improvement goals and timelines, Arcadyan also review and set up improvement plans with suppliers to provide appropriate assistance and education. In 2018, CNC Manufacturing Center (Kunshan) implement total 19 on-site audits and consult for suppliers.

Besides supplier annual quality audits, Arcadyan requires supplier partners to assume responsibility for environmental, labor, management systems, ethics, and safety and health practices, and requires suppliers to sign compliance with corporate social responsibility commitments to understand Arcadyan’s corporate social responsibility concept. Arcadyan also conduct on site CSR audit according to suppliers’ delivery volume and delivery amount. In 2017, launched supplier CSR audit program and different types of major suppliers were selected based

on transaction volume and transaction amount to implement CSR audit that including the labor, ethics, health and safety, environment and management systems issues. Complete totally 25 suppliers CSR audit in 2018.

2018年供应商稽核 Supplier CSR audit in 2018

NO.	Supplier	Type	Address	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	62 丰	Case	蘇州		2/2 已完成										
2	蘇州英田	Case	蘇州												12/10 已完成
3	上興	Case	蘇州							7/10 已完成					
4	國豐	Cable	無錫				4/10 已完成								
5	江蘇華神	PCB	昆山												12/12 已完成
6	台灣昆山	電感	昆山												12/14 已完成
7	多加	Case	昆山											11/30 已完成	
8	明揚	包材	蘇州									9/14 已完成			
9	聯智	被動元件	昆山					5/14 已完成							
10	華科	被動元件	蘇州								8/27 已完成				
11	艺林印刷	包材	昆山						6/29 已完成						
12	利庆	Case	蘇州										10/19 已完成		
13	全名山	被動元件	蘇州												12/17 已完成
14	吳江東立塑膠	包材	蘇州									9/17 已完成			
15	勝達包裝	包材	昆山										10/12 已完成		
16	富揚	包材	蘇州					5/4 已完成							
17	瀚宇	PCB	江陰										10/26 已完成		
18	德輝	Shielding cover	蘇州												12/21 已完成
19	裕同	包材	蘇州												12/26 已完成
20	嘉隆	電源	深圳					5/22 已完成							
21	亞榮源	電源	深圳					5/24 已完成							
22	天至	電源	深圳					5/23 已完成							
23	蕾歐	Shielding cover	吳江												12/20 已完成
24	睿坤	Case	昆山												12/27 已完成
25	聯億	天線	昆山												12/28 已完成

Code	Audit Project	Weight %
EN	Environment	25
HS	Health and Safety	25
CL	Child Labor & Juvenile Worker	5
FL	Forced Labor & Prison Labor	5
FA	Freedom of association	5
DI	Discrimination	5
AP	Appeal	5
DP	Disciplinary Practice	5
WH	Working Hours	5
WC	Wages and Compensation	5
BE	Business Ethics	5
SC	CSR Suppliers CSR	5
SU	Summary	100

d. Supplier Counseling

Arcadyan established a professional counseling platform and held supplier conference to help supplier partners solve problems and grow together.

- The platform provides the new version of green environmental protection procedures and announcement notices to prevent suppliers from following the wrong regulatory or referring the wrong specification. Arcadyan also provide procurement, engineering department to

query supplier's green file upload and updated status.

- Supplier Conference: supplier meetings are held from time to time to explain to suppliers the green product management system platform and related future cooperation issues. In addition, it also conveys the new environmental issues that are currently facing the industry and communicates with them on environmental issues.



## 10. Major Change of Supply Chain

The key components related to the products developed by Arcadyan include power supply, electronic components, electromechanical components (printed circuit boards, etc.) and machine components. The suppliers are from Taiwan and China. As the product application and related needs continue to rise, most suppliers continue to expand production capacity to other China regions. In order to reduce energy consumption and environmental pollution caused by the transportation of raw materials and products, besides to improve the packaging materials (or recyclable material) and space, also supports local procurement, reducing unnecessary transportation costs and carbon emissions. Arcadyan committee the spirit of local procurement and continues to develop new local suppliers through procurement management procedures.

## VII. Operation Risk Management

Arcadyan faces variety risks, such as laws and regulations, operational competition, natural disasters, etc. That is Arcadyan's responsibility to transform the challenges to sustain operations.

The purpose of risk management is to identify risk factors that adversely affect operations in advance, and then properly assess and treat risks, to convert, reduce, and prevent the losses. Arcadyan also responds to changes in internal and external environments, detects and warns risks in time, enabling all colleagues to implement risk management within the scope of business.

Arcadyan and CNC Manufacturing Center (Kunshan) obtained ISO 22301 Business Continuity Management System in 2012 to develop an analysis and risk assessment process, and assessed risk based on PPTISSFT (personnel, location, technology, information, stakeholder groups, suppliers, finance and transportation) of key activities every year. To assess the frequency and possibility of risk, and set recovery priorities, IMP (accident management plan), BCP (business continuity plan), and BCP (business continuity plan) to effectively manage any unexpected events that may cause the interruption of Arcadyan's operation.

Based on the importance of information security for current industry, Arcadyan strengthened related operations in 2012 in accordance with international standards to meet the requirements relevant regulations, contracts, customers and suppliers, and obtained ISO 27001 and ISO 27005 information security and risk management system. All department perform relevant operations in accordance with the "Information Security, Everyone is Responsible" security policy, management procedures, operational guidelines and specifications to perform internal and external audits. Relevant risks of various information assets, through risk assessment and in accordance with various risk characteristics, implement appropriate control measures to reduce or transfer risks, achieve risk management purposes, ensure the confidentiality of intelligence related business information, and prevent the leakage and loss of Arcadyan sensitive information and personal data. The security insurance is also being evaluated as an option for future risk management.

## **VIII. Marketing Development**

### **1. Industry Status and Development**

In 2019, ITRI (Industrial Technology Research Institute of Taiwan) put forward the concept of "5G Wait, Eco First" for ICT industry, and take 5G communication technology as the industrial center to develop various types of industrial technologies and construct industrial ecological

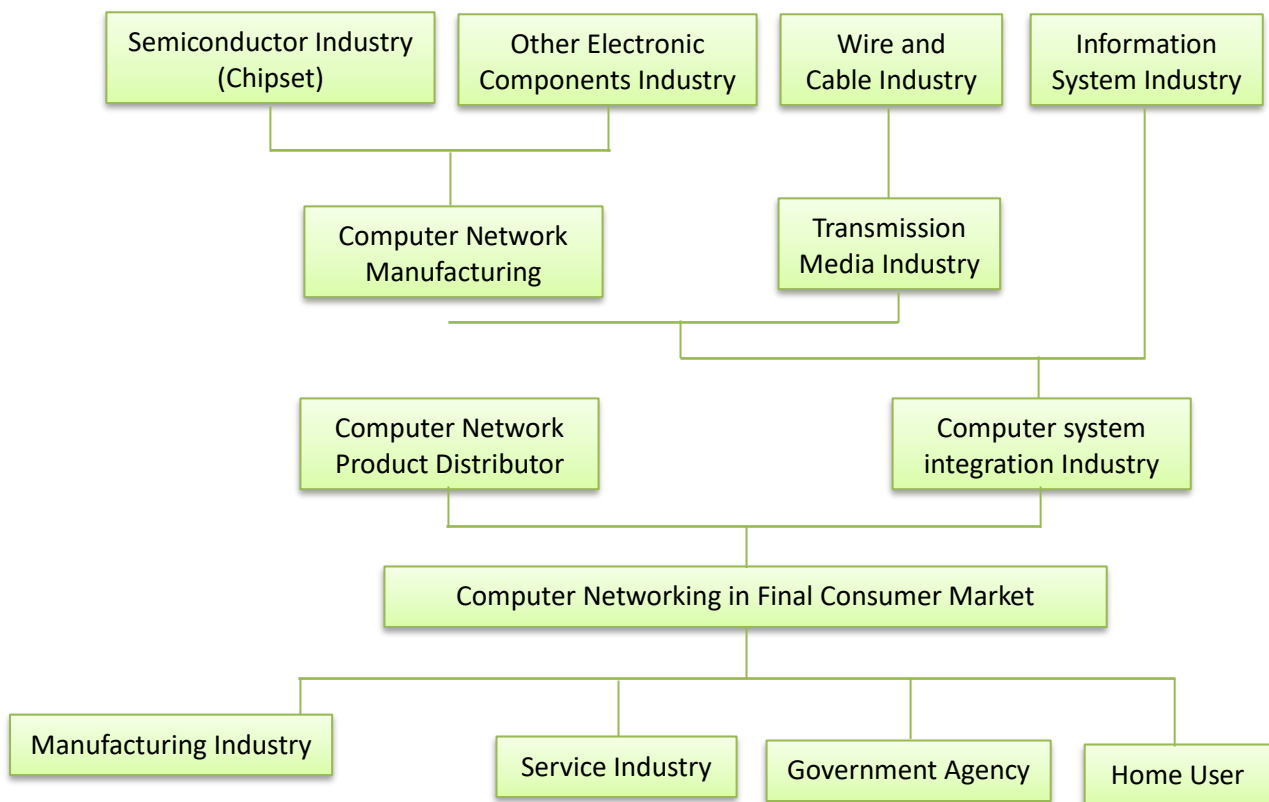
environment. In the next few years, 5G technology will continue to be the main driver of technology innovation applications. Even if the global 5G network is not yet mature, industrial technology and deployment will continue to focus on the preparation of industrial ecosystems such as terminals, components, information security, and edge computing required to support 5G "high-bandwidth, low-latency, and large-link" services.

The industrial ecology related to Arcadyan includes the high-definition video and audio services generated after the official transfer of 5G, and the increase of 4K/8K/XR audio and video applications will bring the demand for the box industry. However, before this, 4K Android Hybrid STB, 4K Android OTT STB set-top box will still be the mainstream trend in the market.

In addition, the 5G frequency band will drive the growth of the mobile phone RF front-end market. In various vertical industries such as energy, manufacturing, public safety, medical care, etc., 5G technology will generate diversified applications and related business opportunities, and cooperation between industry and industry will be more close. However, no matter what kind of vertical industry, it is related to the information and communication industry.

In the trend of the Internet of Things (IoT), network security has been an important issue. Global security and data protection has shifted from key information protection to IoT device security. The EU will also adopt a digital security law in 2019, requiring equipment to ensure security functions and pass corresponding certification. Therefore, not only the design of the communication product is to strengthen the integration of the security function, but also the remote vulnerability maintenance and management needs to be strengthened in the software part, and the device security is actively updated to establish the user trust.

In addition, Arcadyan integration the upstream (wireless dual-band multimedia gateway control chip and wireless dual-band multimedia chip and other key components) and downstream (development platform) R&D system to provide network system architecture, drive the development of communication-related industries.



## 2. Technology and R&D Overview

With the rapid growth of video streaming usage, the digital multimedia market is booming, and 4K high-definition TV and Internet TV (IPTV) have increased penetration. In the case of the set-top box products, most telecom operators still choose the Hybrid set-top box equipped with the Android operating system as the main development core.

In the home application, the set-top box is not only a device with networking function or digital signal transmission, the telecom merchants begin to integrate with the multi-intelligent home application, can download interactive games, and provide IoT intelligent far-field voice interactive control. Integrated services such as appliance management, security monitoring, smart care and home automation.

In the fixed-line network equipment, global telecom operators still focus on FTTH technology. It is estimated that by 2020, the market of high-bandwidth fiber optic connection will continue to grow rapidly. In the era of 5G deployment, the FTTH optical communication industry continued to grow. The number of 5G base stations was 2~3 times of 4G, and the required fiber-optic cables also increased in multiples. The access network has also been upgraded from EPON/GPON to a faster

10G PON. The next-generation PON technology will be based on the ability to carry 5G Small Cell base stations and will be upgraded to 50G TDM PON.

### 3. Long-term and Short-term Business Development Plans

With the diversification of Internet services and the development of multimedia applications such as video on demand, the global consumer demand for bandwidth continues to increase, and the number of global broadband users has also grown rapidly. As broadband communication becomes more and more popular, the world is committed to actively investing in 5G R&D and widespread 4G environment. It has promoted more and more Netcom equipment manufacturers and EMS manufacturers to invest in this development, manufacture, and sales of related products, thus the market and price competition is increasing rapidly. In addition, the rapid growth of China market has also driven the growth and competitive advantage of China Netcom equipment manufacturers. These manufacturers are all actively deploying low-cost, rushing into existing markets, and upgrading their R&D technology. Although the key raw materials of the products have stopped rising prices, the price trend is still full of uncertain variables, and the challenge of cooperating in the future is expected to become more and more severe. Therefore, Arcadyan will continue to improve its technical capabilities, improve its cost competitiveness, enhance the advantages of time to market, and actively develop, cultivate and maintain mutual trust and cooperation with telecom customers to continue to increase market share.

	Short-term business development plan	Long-term business development plan
Research and development strategy	<p>A. Through market integration and provision of customized products to grasp the market trends and customer needs to increase market share.</p> <p>B. Besides cost reduction, apply Arcadyan's technical knowledge to develop new product lines, introduce the market and improve product quality and visibility.</p>	<p>A. To combine market application requirements, Arcadyan provide customers with a complete product series, apply network communication design experience and integrate technical capabilities to develop product lines, and develop other high-end products to meet customer and market needs.</p> <p>B. Continuously improve R&amp;D processes and efficiencies, and build R&amp;D capabilities and core technologies.</p>
Marketing strategy	<p>Maintain existing customers and actively explore the market, expand sales bases to establish a complete marketing channel, provide professional consulting, maintenance and technical support for various products.</p>	<p>A. Cultivate professional marketing talents, deepen customer relationships, and instantly grasp the changes in the network communication market and product development trends.</p> <p>B. Actively cooperate with international manufacturers to develop or strategic alliances to expand the international market.</p>
Production	<p>A. Obtain a production base with cost</p>	<p>Maintain long-term relationships with upstream</p>



strategy	advantages and improve product competitiveness. B. Improve production efficiency and really control budget and cost.	suppliers and cooperative development to reduce costs and develop high quality and competitive products.
Operational and financial strategy	A. Actively expand business, increase-operating income to accumulate operation capital, and expand operations. B. Improve management performance, motivate employees' work potential, and strengthen internal organization.	A. In the domestic and foreign capital markets, flexible use financial market instruments to diversify financial risks. B. Adhere international business thinking and management capabilities, actively cultivate international talents, and move towards the goal of internationalized enterprises.

#### 4. Competition Basis

- a. Excellent R&D team: Due to the outstanding strength of Arcadyan R&D team and the rich experience of R&D personnel in network communication, the international chip manufacturer designated Arcadyan as one of the Early Access Partners to participate in the wafer development process. Therefore, Arcadyan leads the industry to obtain the latest information on future products, and early to product development to get the opportunity to launch new products.
- b. Customized products: Base on the experience and capabilities of R&D team, Arcadyan has mature R&D capabilities in Access Technology and can develop software on its own to provide customers with high-speed, functional and customized product designs. The benefits of customized software to customers includes:
  - Effectively assist customers' products to make market segmentation;
  - Quickly provide customers with customized products;
  - Successfully help customers to design and develop competitive products;
  - Cooperate and develop with chip manufacturers to ensure the leading technology and function of Arcadyan products;
  - User-friendly operation interface to reduce customer investment in customer service.
- c. Work hard to the industry : Product technology development is determined by user's demand for functions, such as Carrier Wi-Fi, VDSL products, PON, interactive Internet TV (IPTV), 802.11x solutions and other application technologies and specifications. Arcadyan is optimistic about the future development of the ISP market. In order to establish a direct cooperation model with ISP in the future, although market development takes a long time, Arcadyan still insists on investing in

R&D resources and accumulating product development experience to strengthen the R&D capability of product technology integration.

**5. Advantages, Disadvantages and Countermeasures for Future Development**

Development Assessment		Content
Advantages Factors	Professional R&D team	Besides its technical advantages, R&D team makes good use of the accumulated technical knowledge, so that the international chip manufacturer designated Arcadyan as one of the Early Access Partners to participate in chip development to lead the industry to invest in research and development resources, launching new products in the market at the first time.
	Develop Market	Arcadyan take niche market as the operational target, and sales strategy is mainly to provide differentiated products and services. Compared with the general network operators to supply standardized, low-priced products and win by volume, Arcadyan products still have higher profit, so there are more resources to continue to invest in product research and development, and lead a benign business cycle.
	Customized product design	In addition to the need for customized technical capabilities, the R&D team also needs to consider the flexibility of functional design in product design. In order to meet customer's timeliness requirements, the flexibility of product design is very influential. Arcadyan develops its own software TRIPOLIS, which provides customer functions including: Management, Firewall/Security, Quality of Service (QoS), High Voice quality on VoIP and Triple Play. Through a simple menu, select product features, and can complete product planning for different functions in a short period, to not only meet the needs of customer differentiation requirement, but also efficiently complete product design and production to launch products into the market immediately.
Disadvantages Factors	Internet communication technology continues to evolve and attract new competitors to join. In order to win customers and increase market share, many manufacturers simplify product functions, achieve cost reduction purposes, or adopt low-cost sales strategies for key products, resulting in price competition. Only Arcadyan is operating with customized products and providing comprehensive technical support, but the cost is relatively high and it is impossible to compete with the general manufacturers for price.	
Countermeasures	Create a single software platform	Quickly convert complex product content into simple models through a single software platform, gaining orders first and winning market opportunities.
	R&D technology integration	Integrate different technologies to grasp core technologies, reduce costs and increase market share; from early Wired routers plus wireless capabilities, ADSL, to VoIP, 802.11x, ultra-fast user digital loop (VDSL), integrated services digital networks (ISDN), Wide-band DECT, IPv6, 3G, 4G, Carrier Wi-Fi and other function. To continue to integrate and develop key components and software technologies.
	Grasp the timing of R&D	Properly analyze market trends and needs to invest in forward-looking product development.
	Create demand with customers	Developed with customers to provide better consulting and services, and build long-term partnerships, not just the role of production and foundry.

**IX. Quality Management and Customer Service**

**1. Assess the Impact of Product and Service on Health and Safety**

If the product is harmful to the health and safety of end user, it will seriously affect the image of Arcadyan and customer and may lead to huge claims from consumers. Arcadyan is committed

to avoiding the products that are harmful to the health and safety of customers. In order to provide health, safety and high quality products, Arcadyan require purchasing raw materials in accordance with “Control Standards for Arcadyan Environment Hazardous Chemical Substances” guidelines and follow international directives. For REACH, RoHS and other international directives, China CNC manufacturing center (Kunshan) introduces QC080000 hazardous substance management process, which requires all kinds of safety regulations from mass customer demand (RFQ) to design stage and mass production. The mass-produced products should 100% compliant with IEC 60950 & IEC 60065 and RoHS compliant, and Arcadyan have never violated product health and safety regulations and voluntary regulations. Arcadyan has never violated the product's health and safety regulations. Arcadyan's goal of customer health and safety not only meets customer needs, maintains customers' health and safety, but also actively develops low-halogen products and builds healthier product production capacity.

## 2. **Product Safety Specifications**

To ensure the safety of Arcadyan products under normal use and to prevent materials and parts from violating safety regulations, Arcadyan take IEC 60950 & IEC 60065 certification standards to conduct tests before design phase. After internal safety test, the verification department verify the test to ensure that 100% mass production products have passed safety certification. RMA center regularly collect product repair data, which records the product problem, root cause, the impact and the solution, as a reference for product design or following repair operation. Since the establishment of Arcadyan, Arcadyan has not violated any health and safety regulations regarding products and services.

## 3. **Product Information and Labeling Requirements**

### a. Waste Electrical and Electronic Equipment Directive, WEEE

At the design stage, Arcadyan considers customer need, waste reduction, and reuse of resources to applicate environmentally friendly materials and low-pollution alternative materials, and introduction of design patterns that reduce the use of natural resources and increase

recycling. The following is a list of the design concept base on EU Waste Electrical and Electronic Equipment Directive (WEEE):

#### EU Waste Electrical and Electronic Equipment (WEEE) Directive

RoHS compliant, prohibit or reduce the use of hazardous chemicals

Try to use a single plastic material type

Active in electronic products development to introduce recycled plastics and biodegradable plastics

Product plastics need to be compatible with chemical surface materials for recycling

The product is designed for easy disassembly and recycling

Product modular design lead parts to be easily replaced and upgraded for extended product life

b. **Registration, Evaluation, and Authorization of Chemicals, REACH**

REACH (Registration, Evaluation, and Authorization of Chemicals) is a European Community Safety Regulation covering the registration, evaluation, authorization and restriction of chemicals. As of June 1, 2007, if any of the substances of higher concern (SVHC) exceeds 0.1% and the annual import of the substance exceeds 1 ton, the EU manufacturer or importer must notify European Chemicals Agency (ECHA). Arcadyan requires suppliers to disclose the information of all published 197 SVHC and encourage suppliers to reduce and eliminate the use of such chemicals at early stage. Arcadyan has included the 72 hazardous chemical substances that listed in REACH Appendix XIV of the EU Chemical Policy in “Control Standards for Arcadyan Environment Hazardous Chemical Substances”, and irregularly revised the relevant environment substances management regulations according to the requirements of international hazardous substances.

c. **Restriction of Hazardous Substances Directive, RoHS**

European Union officially issued four directives (EU) 2015/863 to include four phthalates (DEHP, BBP, DBP, DiBP) in the control project. The environmental impact of waste electrical and electronic products is increasing, and all Arcadyan products are 100% compliant with RoHS (2011/65/EU) Directive, so there are no returns due to RoHS violations. Arcadyan also asked suppliers to limit the use of plasticizers such as DEHP, BBP, DBP and DIBP, which will take effect from July 2019 and the addition of four new phthalates (common in plasticizers, dyes, pigments, paints, adhesives and lubricants). If any electronic products have the above applications, they will be included in the risk assessment of homogeneous components.

d. **Taiwan RoHS**

In response to current international attention to goods' quality and safety and the rising awareness of green environmental protection in Taiwan, Taiwan Bureau of Standards Metrology and Inspection formally put the six toxic substances in RoHS into the commodity verification registration management, and requiring that the products which to be inspected should comply with the requirements of Section 5 "Containing Labels" of CNS 15663 before the specified time, and the contents of the restricted substances shall be indicated on the body, packaging, label or instructions of the goods. Arcadyan officially passed the BSMI certification in 2018, obtained Taiwanese product safety label, and provided the "Restricted Substances Containment Status Declaration Statement" as the application for the BMSI certificate.



**限用物質含有情況標示聲明書**

Declaration of the Presence Condition of the Restricted Substances Marking

單元 Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘 Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr <sup>+6</sup> )	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
線材配件	—	○	○	○	○	○
機構外殼	○	○	○	○	○	○
電路板及 零件	—	○	○	○	○	○
電源供應 器	—	○	○	○	○	○
備考1. “超出0.1 wt %”及“超出0.01 wt %”係指限用物質之百分比含量超出百分比含量基準值。 Note 1 : “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition. 備考2. “○”係指該項限用物質之百分比含量未超出百分比含量基準值。 Note 2 : “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence. 備考3. “—”係指該項限用物質為排除項目。 Note 3 : The “—” indicates that the restricted substance corresponds to the exemption						

e. **Halogen-Free**

Halogen may be highly toxic after being burned and discarded; an EU is regulated in the RoHS Directive for brominated flame-retardants (PBB, PBDEs). For international organizations to promote "halogen-free parts and processes" and customers' environmental protection needs, Arcadyan adheres to the design of reducing environmental impact and reducing human hazards. To clearly defines the limits and control limits of chlorine and bromine content for halogen-free products in the relevant controlled substances regulations in parts and raw materials, and gradually builds the production capacity of halogen-free products. From 2010 to 2018, as all major brand customers are moving towards halogen-free environmental specifications, Arcadyan will continue to improve its material design capabilities and accelerate the replacement of halogen-containing materials with market trends. Arcadyan promotes halogen-free products as follows:

Promotion of halogen-free products	
2010~2016	First official mass production in 2010, check non-halogen products and change environmentally friendly materials
2017	Check non-halogen products and change environmentally friendly materials (Phase-in two projects)
2018	Check non-halogen products and change environmentally friendly materials (Phase-in four projects)

Halogen-Free Specification		
JPCA-ES-01-1999 JPCA-ES-01-2003	Japan Printed Circuit Association (JPCA) defines criteria and method for "Halogen Free"	Br < 0.09wt% ( 900ppm ) Cl < 0.09wt% ( 900ppm )
IEC 61249-2-21	International Electro-technical Commission ( IEC ) finalized requirements	900 ppm max Cl 900 ppm max Br 1500 ppm max total halogens
IPC - 4101B	Has adopted the IEC definition of halogen free	900 ppm max Cl 900 ppm max Br 1500 ppm max total halogens

f. **TUV Green Mark**

Energy efficiency labels are widely used in the EU market and are considered to an authoritative evidence of energy consumption levels. The green product mark indicates the overall environmental benefits of the product. The voluntary environmental labeling program's certification standards are based on product lifecycle considerations and convey verifiable and

accurate information about the product's environment. Through the certification of green product mark, to provide consumers with clear guidelines for environmentally friendly products and reducing environmental impact. Arcadyan products applied for TUV Green Mark of TÜV Rheinland in 2018, obtained the green label and carbon footprint certificate to implement energy efficiency test to meet the requirements of the regulations for low-energy products, and meets the entry regulations of European countries. Product testing and certification in compliance with relevant energy regulations not only ensures that goods enter the target market, but also enhances consumer trust.



**Product Carbon Footprint  
Verification Report**

Verification Report No.: GM-pcfv 14074072\_001

**Telekom Deutschland GmbH**  
Landgrabenweg 151, Bonn, 53227, Germany

The inventory of product life cycle greenhouse gas emissions of Router (Assessment model is **Speedport W 925V**) of Telekom Deutschland GmbH has been verified in meeting TÜV Green Mark requirements.

Based on the information we have received and evaluated, it was verified by TÜV Rheinland Greater China that:

- Product: **Router**
- Manufacturer: **Arcadyan Technology Corporation**
  - Address: No. 8, Sec. 2, Guangfu Rd., Hsinchu City 30071, Taiwan, R.O.C.
  - Production site: 520 NanBang Rd., Economic & Technical Development Zone, Kunshan, Jiangsu, China (Compal Networking (KunShan) Co., Ltd.)
- Assessment model is: **Speedport W 925V**
- System boundary of this product: **Cradle-to-Grave**.
- Product and function unit: **one set of Router (include package)**
- Model no. and carbon emissions: **Speedport W 925V / 388.6525 Kg CO<sub>2</sub>e**
- Life cycle assessment software: **SimaPro ver. 8.2 (IPCC 2013 GWP 100a V1.02)**
  - The raw data base on client's file: **Product Carbon Footprint Report W925 V0801.docx (2018-08-01)**
- This report is valid from **2018/09/13** until **2019/06/07**



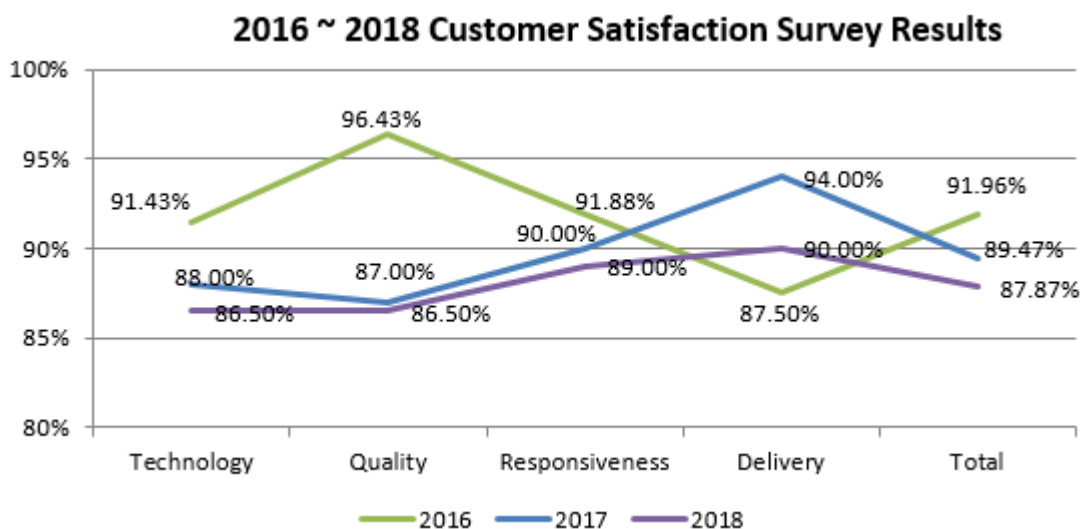
**Three advantages of green product mark certification standards**

Prevent pollution	Control pollutant emissions into air and water, use and dispose of toxic and hazardous chemicals responsibly, and prevent other identifiable pollution such as noise, odors and light pollution.
Sustainable use of resources	Responsible use of electricity, fuel, raw materials and processed materials
Mitigating climate change	Measure, report, and reduce the carbon footprint of a product using methods that are clearly defined in internationally accepted standards.

Arcadyan implement regulations verification and labeling according to the needs of customers to meet the different certification standards of different countries, so that consumers can choose and purchase qualified and suitable products. In 2018, Arcadyan did not have any complaints or voluntary violations that did not follow the information signs of products and services.

#### 4. Customer Satisfaction

Arcadyan always pays attention to commitment with customers, besides communicate with customers via email or telephone, Arcadyan continues to track customer satisfaction not only provide comprehensive product quality, also offer solutions to meet the highest standards of customers. Therefore, Arcadyan conducts customer satisfaction surveys every year, and the satisfaction survey results in the past three years are:



## X. Environmental Protection

### 1. Environmental Management Policy

Arcadyan deeply recognizes the limited of earth's resources and the importance of sustainable development, and declares and integrates environmental safety and health implementation into Arcadyan management system. In our business activities, Arcadyan understand the interrelationships between processes, products and the environment, and the risks of safety and health. To prevent accidents and establish emergency response systems, we are committed to environmental safety and health, and continue to improve and establish a safe and healthy environment to achieve the goal of sustainable development. Therefore, in order to effectively promote and manage, Arcadyan has formulated the safety, health and environmental policy as follows. Arcadyan will follow the highest standards to safely operate equipment and protect the environment, employees, customers and the community. Safety, health and environmental



protection are an inseparable part of the development of Arcadyan, we will continue to do our best to meet the expectations and strengthen our business.

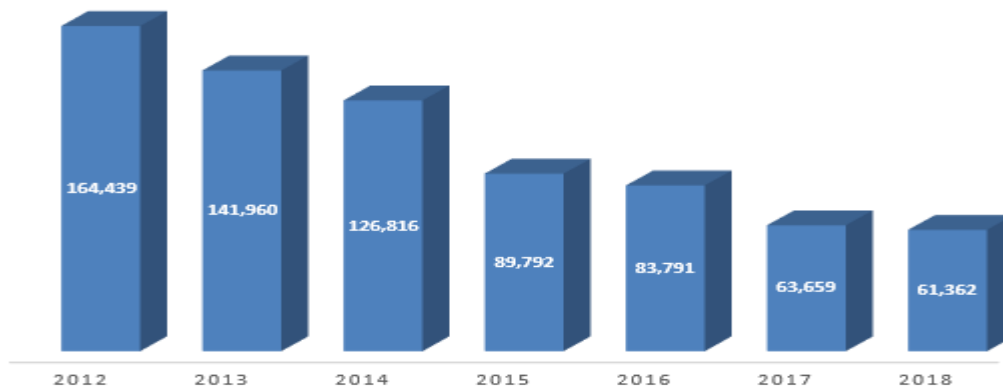
- Compliance with domestic environment, safety and health regulations, effective implementation of environment, safety and health management system;
- Full participation in Eco-design, pollution prevention to establish safety and health risk-free environment, and committed to continuous improvement of sustainability;
- Continue to promote resource recycling and industrial waste reduction, and reduce the impact of supply chain carbon emissions;
- To strengthen environment, safety and health training and education for employees and subcontractors;
- To implement self-inspections to actively prevent occupation disease and avoid unsafe environment;
- To have health control to maintain employees' health and to achieve zero accident.

## **2. The Amount of Water Discharged by Water Quality and Destination**

Water resources are the necessary resources for society and the most precious life elements on the planet. In response to climate change, Arcadyan implements comprehensive management to achieve water conservation goals in the use of water resources. In the wastewater discharge management, the treatment facilities are planned according to the type of wastewater, such as to separate grease from kitchen wastewater to reduce environmental impacts makes the wastewater discharge better than discharge standards.

- a. China CNC manufacturing center (Kunshan) is an assembly type manufacturing plant that emits only domestic water and no factory wastewater. The discharged domestic wastewater is directly discharged to the municipal sewer system, and the domestic wastewater drainage permit is obtained and passed the third-party inspection. There is no sewage and directly affects water quality and land and monitored regularly. In 2018, water emissions were 61,362 tons, with an average of 2.38 tons of water per person per month.

### Average water consumption (tons)



b. Arcadyan headquarters is a research and development office building. The use of water resources is only for general domestic water use and no process water. The sewage is included in the sewage sewer management system set up by the government. The plant area fully implements water resources management, and gradually uses water-saving facilities and employee habits to promote water conservation goals. Therefore, in the planning of saving water resources, infrastructure improvement is the main priority, such as the use of water-saving facilities and other reduction measures. The total water consumption in 2018 is 19,168 tons, with an average of 2.82 tons of water per person per month.

Category	Project	Estimated water saving (ton/year)
<b>Equipment</b>	Rainwater recovery system	200
	Planting automatic watering system	250
	Water saving stamp toilet	150
	Automatic inductive water saving faucet	50
	Automatic sensor urinal	150
<b>Behavior</b>	Adjust the amount of water from appliance	–
	Adjust the water consumption of planting according to the season	–
	Adjust the inverter motor pressure	–
	Kitchen wastewater grease separation and discharge	–
	Air conditioning condensate recovery and reuse	–
<b>Amount</b>	<b>800 (ton/year)</b>	

### 3. Waste by Category and Disposal Method

In order to prevent pollution incidents, properly manage and dispose of wastes from the source, and achieve the goal of reducing waste, Arcadyan proposed a reduction plan. Headquarter and factory staff restaurant do not use disposable tableware, develop online sign-

off system to reduce paper use, phase-in automated processes to improve accuracy, reduce the waste materials due to workmanship, and complete implementation. All employees have received professional training in environment, safety and health concept. As of 2018, no major oil, fuel leakage, waste, chemical substances and other major pollutants have affected the soil or water surface. There are also no import and export of hazardous waste and any violation of environmental regulations.

a. China CNC manufacturing center (Kunshan):

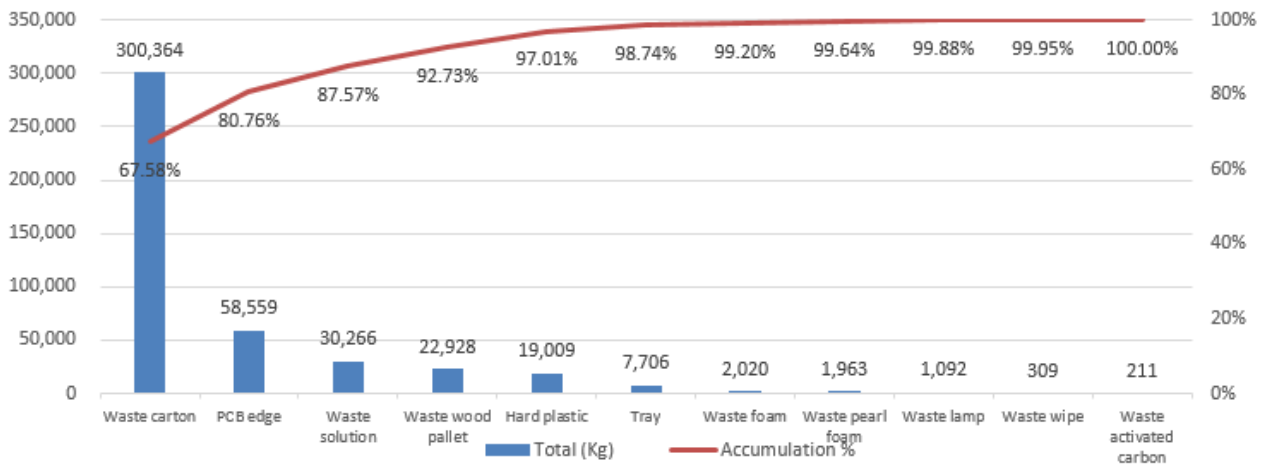
The waste generated by China CNC manufacturing center (Kunshan) is centralized and classified, and then commissioned by professional and qualified environmental protection companies for recycling or incineration. The factory only has a small amount of hazardous waste, mainly from the cleaning agent used in cleaning steel plate/reflow equipment, the waste liquid used for cleaning and the waste liquid generated by cleaning fixture equipment, waste lamp and PCB board edge, .....etc. All of them are disposed by local qualified recycling factory.

The exhaust gas emission source of the factory process is soldering process. The gas is exhausted from the exhaust pipe through the activated carbon filter. The maintenance department performs inspection and maintenance on the exhaust equipment every month to ensure that the air pollution monitoring data meets local government environmental protection requirements.

China CNC manufacturing center (Kunshan) monthly weight list of hazardous waste and general waste in 2018

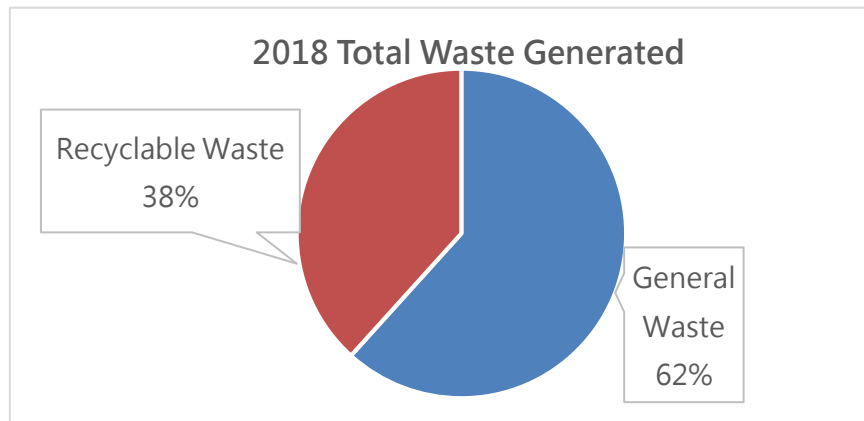
Year / Month	Waste carton	PCB edge	Waste solution	Waste wood pallet	Hard plastic	Tray	Waste foam	Waste pearl foam	Waste lamp	Waste wipe	Waste activated carbon
	(Kg)	(Kg)	(Kg)	(塊)	(Kg)	(Kg)	(Kg)	(Kg)	(Kg)	(Kg)	(Kg)
Jan 2018	18,574	3,000	0	370	1,600	374	117	155	0	0	0
Feb 2018	18,308	2,000	0	220	1,130	393	132	80	0	0	0
Mar 2018	16,678	3,100	0	430	1,225	413	124	124	0	0	0
Apr 2018	26,065	4,345	12,279	400	1,624	667	144	150	729	23	0
May 2018	24,981	7,879	2,533	380	1,319	556	95	139	40	39	56
Jun 2018	27,556	5,870	2,434	510	1,289	620	133	127	50	23	50
Jul 2018	23,618	3,299	2,567	380	1,326	615	195	180	35	37.5	25
Aug 2018	25,969	5,346	2,277	430	1,602	624	179	148	0	31.5	0
Sep 2018	30,261	5,728	1,911	630	1,794	901	174	174	38	47.0	30
Oct 2018	24,769	6,100	2,088	622	1,547	776	168	193	153	40	50
Nov 2018	31,286	8,392	2,677	600	2,019	1,029	260	236	47	42	0
Dec 2018	32,299	3,500	1,500	760	2,534	738	299	257	0	26	0
<b>Total (Kg)</b>	<b>300,364</b>	<b>58,559</b>	<b>30,266</b>	<b>22,928</b>	<b>19,009</b>	<b>7,706</b>	<b>2,020</b>	<b>1,963</b>	<b>1,092</b>	<b>309</b>	<b>211</b>
<b>%</b>	<b>67.58%</b>	<b>13.18%</b>	<b>6.81%</b>	<b>5.16%</b>	<b>4.28%</b>	<b>1.73%</b>	<b>0.45%</b>	<b>0.44%</b>	<b>0.25%</b>	<b>0.07%</b>	<b>0.05%</b>
<b>Accumulation %</b>	<b>67.58%</b>	<b>80.76%</b>	<b>87.57%</b>	<b>92.73%</b>	<b>97.01%</b>	<b>98.74%</b>	<b>99.20%</b>	<b>99.64%</b>	<b>99.88%</b>	<b>99.95%</b>	<b>100.00%</b>
<b>Amount (Kg)</b>	<b>444,427</b>										
	: Harmful business waste										

**China CNC manufacturing center (Kunshan) monthly weight list of hazardous waste and general waste in 2018**



**b. Arcadyan headquarters**

The waste generated by Arcadyan headquarters is mostly general waste, which are domestic waste and resource recycling waste. Concentrated garbage for incineration, sorting, waste reduction, recycling and reuse, etc. It also meets the requirements of the laws and regulations, and selects qualified waste removal and transportation vendor for proper handling via the legal agencies. Arcadyan also establishes independent audit management operations for wastes. In 2017, produced a total of 22.2 tons of general waste and 13.784 tons recyclable waste.



**4. Arcadyan Environmental Protection Projects and Activities**

In recent years, issues such as sea level rise, desertification, extreme climate, water resources problems, food, and ecological imbalance caused by global warming and climate change, the impact, adjustment and mitigation of climate change have become the most important environmental issues in the world. Arcadyan faces the operational challenges that may be encountered due to climate change, to manage and implement environmental management

systems such as ISO 14001, ISO 14006, and IECQ QC080000 from qualitative and quantitative, strengthens Arcadyan green strength, effectively tracks and controls various environmental performances, and actively participates in global Environmental protection programs, such as greenhouse gas inventory and reduction, product carbon footprint, carbon exposure project, non-toxic product design and non-hazardous substances, continue to promote the operation of the project to ensure sustainable business operations.

**a. Greenhouse gas management:**

Arcadyan reviews the greenhouse gas management objectives annually. China CNC manufacturing center (Kunshan) has set a greenhouse gas management target of 10% reduction of CO<sub>2</sub> emissions and 7% of electricity consumption by 2022 based on 2017. Therefore, greenhouse gas inventory operations are carried out every year, and take last year as benchmark to reduce energy use and increase energy efficiency, thereby reducing greenhouse gas emissions.

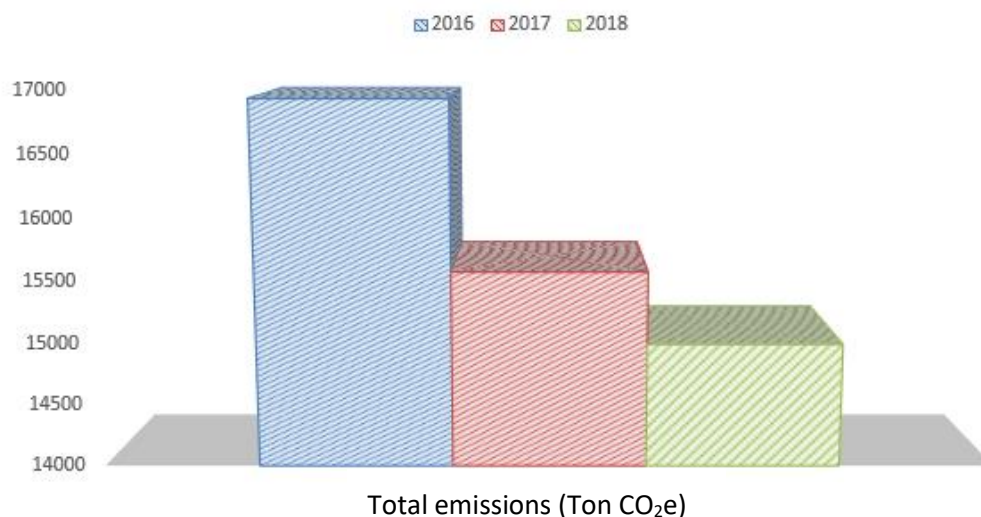
Since 2012, China CNC manufacturing center (Kunshan) has carried out organizational (Scope 1 and Scope 2) greenhouse gas and product carbon footprint inventory. In 2009, officially participate in CDP carbon footprint disclosure, the carbon reduction target to mitigate the effects of climate change, the greenhouse gas inventory process as shown in the following table:

Year	Carbon reduction work
2009	<ul style="list-style-type: none"> <li>• Arcadyan headquarter conducts organized greenhouse gas inventory and adopts carbon reduction measures.</li> <li>• Arcadyan headquarter officially participated in International Carbon Disclosure Project (CDP).</li> </ul>
2012	<ul style="list-style-type: none"> <li>• China CNC manufacturing center (Kunshan) conducts annual organizational inventory</li> </ul>
2013	<ul style="list-style-type: none"> <li>• China CNC manufacturing center (Kunshan) plan to organizational carbon reduction targets and adopt carbon reduction measures.</li> </ul>
2015~2016	<ul style="list-style-type: none"> <li>• Arcadyan headquarter conducted organizational Scope 3 - Carbon emission inventory of new buildings in Taiwan headquarters.</li> <li>• Arcadyan headquarter purchased carbon footprint Simapro software, participated in product carbon footprint green design consultation.</li> </ul>
2017	<ul style="list-style-type: none"> <li>• Arcadyan headquarter conducted product's carbon footprint inventory - Electronic Home Gateway LCA.</li> </ul>
2018	<ul style="list-style-type: none"> <li>• Arcadyan headquarter carried out product Router carbon emission inventory</li> </ul>

certification.

### Greenhouse gas inventory results (Ton CO<sub>2</sub>e)

Year		2016	2017	2018
Taiwan Arcadyan Headquarter	Design center	1,399	1,409	1,466
China CNC manufacturing center (Kunshan)	Manufacturing center	16,079.75	14,596.71	14,102.71
Total emissions (Ton CO <sub>2</sub> e)		17,478.75	16,005.71	15,568.71



#### b. Greenhouse gas reduction:

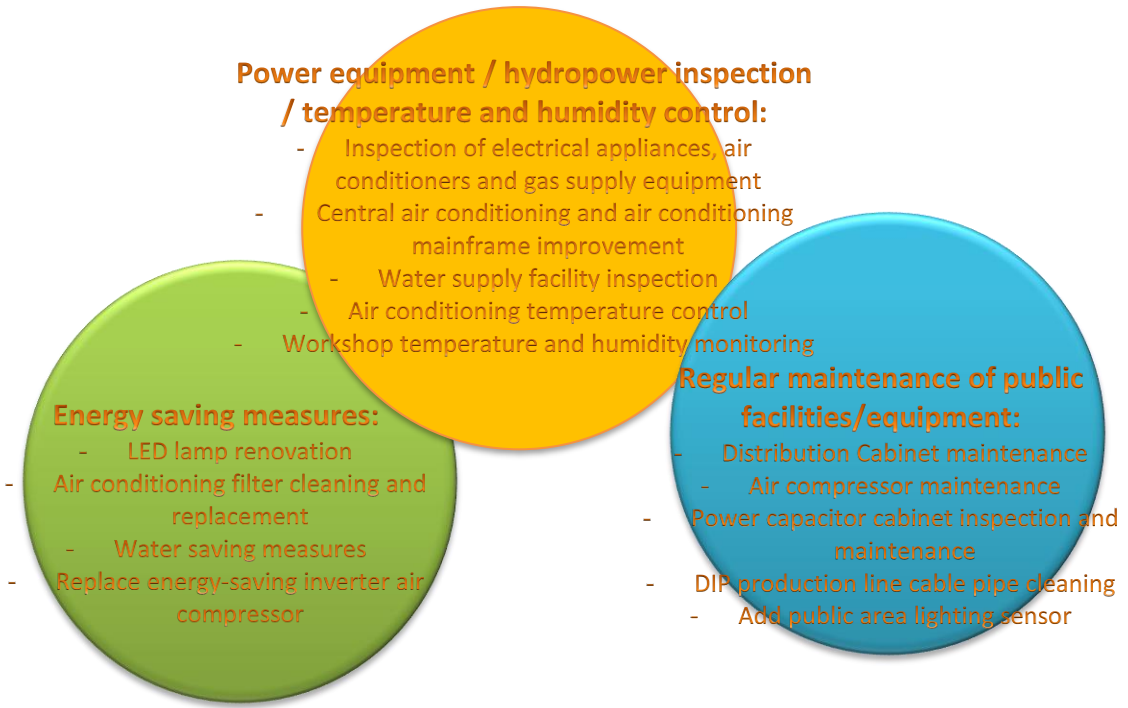
Arcadyan is committed to reducing greenhouse gas emissions, and actively promotes energy-saving projects in the plant area. In terms of energy conservation, the planning includes two major energy-saving spindles, such as equipment improvement and process transformation. The responsible personnel implement and estimate energy savings, and introduce daily energy-saving behavior measures. The energy consumption of direct energy emissions in 2018 is as follows:

Statistics of direct greenhouse gas mobile combustion source emissions in 2018

Activities/ Facilities	Emission source	Amount (L)	Converted to Kg	Possible types of greenhouse gases						Data Sources
				CO <sub>2</sub>		CH <sub>4</sub>		N <sub>2</sub> O		
				Unit	Emissions (KG)	Emissions (KG)	CO <sub>2</sub> Emissions equivalent (KG)	Emissions (KG)	CO <sub>2</sub> Emissions equivalent (KG)	
Business car	Gasoline	15,193	11,015	kgCO <sub>2</sub> /kg	32824.7	11.9	297.5	3.8	1132.4	China Petrochemical website
Truck	Diesel	21,002	17,642		55748.7	2.9	72.5	2.9	864.2	

Statistics of direct greenhouse gas emission source in 2018

Human category	Total amount of organic matter(BOD)	CH <sub>4</sub> Emissions (BOD*EF, KG)	CO <sub>2</sub> Emissions Equivalent (KG)	CO <sub>2</sub> Emissions Equivalent (Ton)
Employees living in the dormitory	5942.2	1782.7	44567.5	44.6
Direct employee of commuting	10092.8	3027.9	75696.3	75.7
indirect employee of commuting	973.3	292	7300	7.3



### Electrical equipment inspection

**Air conditioning equipment inspection**

**Gas supply equipment inspection**

**Power equipment / hydropower inspection / temperature and humidity control**

**Workshop temperature and humidity monitoring**

**Water supply facility inspection**

2015 ~ 2018 Energy Saving Renovation Program	
Implementation project	Improvement Program
A8 PT manual production line	Added 10 automated assembly lines
Upgrade old air conditioning	Replace the original 2F, 3F high-energy mainframe with a new low-energy module
Lighting renovation	Replace 28W lamp tube with 12WLED energy-saving lamp
Upgrade Old air conditioning	Replace the high-energy with a new low-energy module
Upgrade air compressor	Replace the high-energy-consuming air compressor*5 to compression frequency conversion energy-saving units*2
Upgrade humidifier	Replace high-energy energy electrode humidifier to low-energy energy-saving humidifier
Announcement	Mail the announcement and post energy-saving slogan
illumination	<ol style="list-style-type: none"> <li>1. Replace energy-saving lamps such as LEDs</li> <li>2. Installation time and sensing controller</li> <li>3. Post a power saving reminder nearby the switch facility</li> </ol>
Air conditioning electricity	Temperature setting is not lower than 26 °C in summer and not higher than 22 °C in winter
Frequency conversion system	Replace old equipment to change equipment with high efficiency
Elevator	Adopt smart automatic dispatching car, announce more walking stairs and take less elevator

**c. Carbon Disclosure Project, CDP:**

Arcadyan always cares about global environmental changes, including related agreements actively promoted by various countries, such as Kyoto Protocol, UNFCCC, Paris Agreement, and UN Treaty. Since 2009, Arcadyan has actively participated in Carbon Disclosure Project (CDP), which emphasizes the management and response of climate change, and strengthens the ability of enterprises to respond to climate change policy tools, including carbon emission inventory, carbon reduction effectiveness, and identification of regulations and physical risks, such as resource exhaustion, resource shortages, climate change, sea level rise, etc. To reduce the operational risks and costs of enterprises, and further convert various risks into green circular economy business opportunities, to improve the sustainability of business operations.

**d. Energy management:**

The power consumption is the main source of greenhouse gas emissions for Arcadyan. China CNC manufacturing center (Kunshan) conducts monthly KPI (Key Performance Index) management



to track and review the situation monthly, and proposes improvement measures and plans. The total energy consumption of direct / indirect greenhouse gases in 2018 are as follows:

**Total energy consumption of indirect greenhouse gases - average annual electricity consumption in manufacturing center**

Year	Total electricity consumption (KWH) <sup>(Note)</sup>	Electricity consumption reduction	Reduction %	Remark
2012	21,763,740	-	-	-
2015	19,908,022	1,855,718	8.50%	Compared with 2012 base year
2016	19,497,683	2,266,057	10.40%	
2017	18,302,719	3,461,021	15.90%	
2018	17,686,985	4,076,755	19.00%	Compared with Y2017
		615,734	3.36%	

Note: For the calculation of carbon reduction, the electricity emission factors in Taiwan is 0.529 kgCO<sub>2e</sub>/kwh, the factory power factor in Kunshan, China is 0.785 kgCO<sub>2e</sub>/kwh.

**Total energy consumption of direct greenhouse gases**

Source category <sup>(Note)</sup>	Emission source	Greenhouse gas CO <sub>2</sub> emission equivalent (ton/year)			
		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total
Moving combustion source	Gasoline	32.8	0.3	1.1	34.2
	Diesel	55.7	0.07	0.86	56.63
Emission source	Septic tank		127.6		127.6
Total CO <sub>2</sub> emission equivalent (ton/year)					218.43

Note: Source category

Mobile combustion source: refers to the fuel burning of transportation equipment, such as cars, trucks, trains, airplanes and ships.

Emissions sources: intentional and unintentional emissions, such as joints, seals, and wastewater treatment plants, septic tanks, etc.

**e. Circular economy:**

With the rapid development of technology, the life cycle of consumer electronic products is getting shorter and shorter, and the increasing waste electronic products are gradually becoming the impact of the environment. In order to reduce the threat to the earth's resources, avoid the spread of harmful substances to the environment, and reduce the pressure on huge electronic waste, How to assist pollution prevention, recovery and reduction, and practice the spirit of circular economy has become an important issue in the design and development of Arcadyan. Arcadyan is committed to reducing its life cycle products from the cradle to the grave and harming the environment, and focus on improving energy efficiency, reducing waste of natural resources, reducing emissions of waste water, waste gas and waste, making the environment sustainable and

endless.

Arcadyan implement product life cycle environmental impact assessment through ISO 14006 eco-design management system. The results and practices are one of the important management tools for Arcadyan's internal product development strategy; for customers, it can clearly disclose product environmental information. Moreover, Arcadyan set medium and long-term target based on this result. By improving environmental and economic performance and continuous monitoring, we can effectively achieve business philosophy of business opportunity and ecological environmental protection.

Arcadyan take LCA and SimaPro tools to develop strategies for product eco-design goals and key performance indicators, considering cooperate with suppliers for sustainable design and integration with circular economy. Recycling economy life cycle is promoting eco-design with practical and innovative ideas, integrate material to reduce waste, and the sustainability management is:

Product design strategy and plan	Recycling and reuse planning
The product development process includes sustainability requirements and assessing economic value	Internal operations - reuse of products, module, components and raw materials
Identify and use sustainable materials for product development	Cooperate with supply chains to reuse products, components and raw materials
Replace materials that are dangerous or not suitable for existing products	Cooperate with customers to collect and reuse products at the end of the product lifecycle
Material reduction, simplification, easy disassembly, recycling, and zero waste	Save carbon emissions and waste of resources, use carbon analysis product design tools for life cycle analysis
Product energy / resource consumption	
Product packaging minimization / recycling considerations	
Set key performance indicators, goals and performance	
Use key tools and technologies in the product design process to deliver sustainable product design °	
Product design and development optimization, such as sustainability throughout the product lifecycle – including purchasing, manufacturing, packaging and scrapping.	

Arcadyan plans the practical actions for future circular economy and introduces them into existing product design concepts:

**2018~2019 Circular economy import practice**

Soybean plant material ink is introduced into packaging design
25% post-consumer environmentally friendly recycled plastic materials for reuse
Use forest protection FSC (Forest Stewardship Council) packaging materials
Water-based painting mechanism design
Strengthen thermal cycle design to extend life cycle
Arrange the solder joint area to improve heat dissipation
Design routers to support multiple functions, for example, when router mode is in the phase-out phase, users can configure the router to repeater mode to extend the service life.
Optimize panel design to minimize PCB size and thickness to increase PCB utilization to 85%
Optimize packaging design, reduce space and reduce waste of transportation space
Reduce packaging materials
Assist customers in collecting and recycling products after the product life cycle
Lean design to reduce material energy waste

**f. Green Product Information platform:**

In terms of green products and components, in order to systematically integrate with suppliers and effectively track, communicate and manage Arcadyan’s quality requirements, each suppliers can understand the latest regulations and regulations through “Green vendor audit document system” and “Green Product Renew System”, and to ensure that the raw materials provided by the supply chain do not contain the substances harmful to the environment. The international regulatory information will be announced on the GP cooperation platform from time to time.

From 2016, Arcadyan launched supplier greenhouse gas management program to investigate suppliers' states of raw materials. Arcadyan regards suppliers as important partners and hopes to establish supply chain material management through cooperation opportunities. In addition to supplier evaluation, suppliers are also required to commit to environmental protection. Arcadyan invites suppliers to use the Green Parts Master Table as a carbon footprint assessment tool to investigate supplier's response and implementation in greenhouse gas, water and climate warming strategies, to achieve raw material management and carbon reduction, and to continue tracking to strengthen green communication and sharing with various supplier partner. Moreover, suppliers and internal staff promote mutual learning and communication, thus forming a sustainable green supply chain. Promote sustainable development of green supply chains through mutual learning and communication between suppliers and Arcadyan.

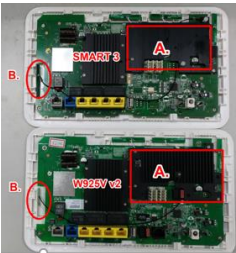
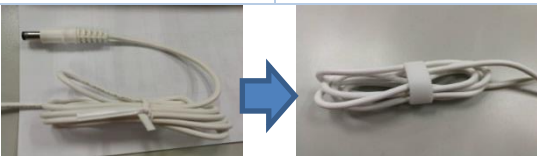
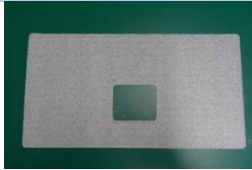
Supplier Greenhouse Gas Management Program - Analyze Carbon Footprint
Material Safety Data Sheet (MSDS) or Material Composition Table (MCS)
Supplier must list the hazardous chemical substances of the main chemical components and substances.
Assess whether or not to add hazardous substances
Study the impact of the supply chain on the loading (conflict minerals or mining industry)
Sorting the bill of materials list, including the chemical composition of the components
Provide the weight or a percentage component of material
Study toxic substances and the risk components that are intentionally added to the environment
Evaluation of raw material carbon footprint

**g. Eco-design:**

The green design thinking of Arcadyan’s products is based on the “Product Life Cycle, PLC”, which considers the environmental impacts of raw material procurement, manufacturing, transportation and distribution, consumer use and disposal. Therefore, at the beginning of product design, besides focus on customer needs, functionality, energy-saving and low-carbon design to comply with national sales regional regulations, such as the European Eco-Design Requirements for Energy-related Products. Arcadyan strengthens the green product design direction is "material selection for low toxicity", "energy saving design" and "easy to disassemble and recycle less packaging". At the same time, comply with international trends, stakeholder and customer needs to implement environmentally friendly design to achieve the best Eco-effectiveness.

In 2015, Arcadyan planned the Life Cycle Assessment (LCA) and SimaPro training programs for carbon inventory and ISO 14006 systems. Arcadyan headquarters completed LCA training at the end of 2016, and implemented internal audit in October 2017, then conducted a third-party audit in the first quarter of 2018 and obtained ISO 14006 certification. China CNC manufacturing center (Kunshan) implemented product life cycle data collection training in February 2017 and completed internal audits. The target product is DT W925 V & Smart3 projects environmental impact quantification and announcement, the main content includes the purpose and scope definition of the operation, life cycle inventory analysis, life cycle impact assessment and life cycle interpretation. In addition to a complete understanding of the implementation of product environmental impact

assessment, environmental information disclosure report can be used as a necessary reference for external verification. In 2018, according to ISO 14006 specification, the R&D results of "DT W925 V & Smart3" project design are as follows:

Program	Green design focus	Total carbon emission reduction <sup>(Note)</sup>	Design diagram
PCBA Design	<p>1-1. Reduce the number of parts to 68 types</p> <p>1-2. Weight reduction of parts and HEATSINK: The weight of W925V HEATSINK is 76.6g. Next revision, the weight of Smart 3 HEATSINK is 46g, a total weight reduction of 30.6g. Parts and HEATSINK reduced carbon emissions by 5.82 (kgCO<sub>2</sub>e)</p> <p>1-3. Antenna size reduction: Due to the reduction of direct materials and weight, each unit of product can reduce carbon emissions by 0.574 KgCO<sub>2</sub>e.</p> <p><b>The life cycle of the above parts is reduced by about 6.4KgCO<sub>2</sub>e (calculated based on SimaPro 8.2)</b></p>	4437.4 (tones)	
PSU cable	The original DC cable is disposable material. After the revision, change the original cable to the devil material, which can be used repeatedly.		
GP-hazardous substances reduction	International does not have mandatory regulations for halogens. Since 2017, Arcadyan required project-packaging materials, PCBs, external components or key components to meet halogen-free requirements and reduce the use of halogen flame-retardants to reduce the destruction of the ozone layer, make products more environmentally friendly and reduce environmental impact. Compatible with lead-free and halogen-free green materials to enhance environmental friendliness. The halogen-free material of this project has a bromine concentration of not more than 900 ppm, a chlorine concentration of not more than 900 ppm, and a total concentration of bromine and chlorine of not more than 1500 ppm.		
Packaging material design	Remove EPE PROTECT PAPER packaging materials, reduces the weight of each product by 2.2g and reduces the amount of 0.004991674 kg CO <sub>2</sub> .	3464.85 (Kg)	
Energy consumption design	For ErP part, perform SW control power consumption, such as CPU down-conversion DFS, RF power saving mode & Disable xDSL, to reduce the power consumption of ErP standby mode. Power consumption is up to ErP tier -2018 standard <8W, the reduction rate for original test power consumption is more than 6%.		
Other green design results	Friendly environment patent design description: Natural diversion heat dissipation structure module - air guiding tube As electronic devices tend to be smaller, the heat dissipation performance becomes more important. The thermal convection principle utilizes a structure to promote heat exchange between hot and cold air convection to reduce component temperature.		

Note: Calculated by 694,126 units of the project's total shipments in 2018

**h. Green products:**

In design phase, Arcadyan consider the reduction of waste, the reuse of resources, the application of environmentally friendly materials and low-pollution materials, and introduce a

design pattern that reduces the use of natural resources and increases recycling. The following is the design guidelines for environmental protection, sustainability, and recycling concepts when designing TUV Green Mark green products:

<b>Green Product Policy for TUV Green Mark</b>	
Review brand owners, manufacturers and production sites in accordance with SA8000 / RBA / GRI's Corporate Responsibility Code.	Review brand owners, manufacturers and production sites in accordance with SA8000 / RBA / GRI's Corporate Responsibility Code.
CE Compliance: CE Declaration and document inspection of the attached test report	CE Compliance: CE Declaration and document inspection of the attached test report
According to RED directives for electrical safety, electronics, radio and health.	According to RED directives for electrical safety, electronics, radio and health.
Verification of hazardous chemicals/hazardous substances (halogen-free testing, documentation of REACH, RoHS compliance declarations and corresponding test reports) according to the ERP Directive	Verification of hazardous chemicals/hazardous substances (halogen-free testing, documentation of REACH, RoHS compliance declarations and corresponding test reports) according to the ERP Directive
Energy efficiency according to DIN EN 62209-2 review and test report	Energy efficiency according to DIN EN 62209-2 review and test report
According to the "Broadband Equipment Specification" test report, to onsite review the power consumption management requirement	According to the "Broadband Equipment Specification" test report, to onsite review the power consumption management requirement
Recycling design based on the WEEE assessment report, reviewing the statement of post-consumer recycled materials	Recycling design based on the WEEE assessment report, reviewing the statement of post-consumer recycled materials
Confirm the contents of the plastic parts based on the recycling strategy review information; test the product, disassemble the product, the plastic recycling mark and the type of coating	Confirm the contents of the plastic parts based on the recycling strategy review information; test the product, disassemble the product, the plastic recycling mark and the type of coating
Marking tests on plastic parts, reviewing reports on product recalls	Marking tests on plastic parts, reviewing reports on product recalls
Assess product climate resilience, review product carbon footprint report, repair, and reuse	Assess product climate resilience, review product carbon footprint report, repair, and reuse
Review appropriate warranty statements, software updates, repair and spare parts availability, and hardware replaceability	Review appropriate warranty statements, software updates, repair and spare parts availability, and hardware replaceability
Product life assessment report	Product life assessment report

**XI. Arcadyan’s Employees**

**1. Agreement**

Through a diversified and smooth negotiation mechanism, Arcadyan creates a positive employment relationship to adopt employee's suggestions and actively treatment. Besides complying with the regulations and various policies, Arcadyan also considers employees' rights and interests. Arcadyan employees can maintain good labor relations through multiple channels negotiation mechanism as below:

Labor conference	Provide opinions and communication channels between labor and management
BBS electronic bulletin board	As a platform for internal announcements, employees can also express their opinions through internal BBS
HR mailbox	Provide external contacts and employee questions and comments

## 2. Corporate Governance and Employee Diversity

Arcadyan has a dedicated staff responsible for corporate governance related matters, including providing directors and independent directors with the information required to conduct business, handling matters related to the board of directors and shareholders' meetings, handling company registration, and producing board and shareholder meetings. Arcadyan regularly or irregularly collects company information to disclose in public information observatory and Arcadyan website ([www.arcadyan.com](http://www.arcadyan.com)). Arcadyan Chinese and English websites also have an investor relations zone, which fully exposes the financial business and corporate governance related information for shareholders and the public.

Expose project	Expose content
<b>Employee rights</b>	In addition to setting up employee welfare committees, planning employee insurance, arranging regular health examination, and implementing pension system, Arcadyan also provides multi-disciplinary approach, attach importance to the relationship between labor and management, and create equal employment opportunities.
<b>Employee care</b>	Through the stability of the employee's living welfare system, good education and training system, Arcadyan establish good and trust relationship with employees. Such as: subsidizing employee association activities, providing entertainment activities, etc.
<b>Employee code of conduct or the code of ethics</b>	In order to implement Arcadyan integrity management concept, make all Arcadyan employees follow the rules, comply with legal and ethical principles, maintain the assets, rights and image of Arcadyan and stakeholders, and set the business ethics policy as follows: <ul style="list-style-type: none"> <li>- Compliance with government relevant laws and regulations</li> <li>- Protect the rights of employees, customers, shareholders, suppliers, communities and the environment</li> <li>- Adhere to business ethics, fair trade, clean management, open information, emphasis on intellectual property and protection of personal safety and trade secrets</li> </ul>
<b>Investor relations</b>	Arcadyan has a dedicated investor relations department as a communication bridge between Arcadyan and its investors. In addition to regular and irregular meetings, Arcadyan also set up an investor area on Arcadyan website to enable investors fully understand the business results and long-term business strategy of Arcadyan.
<b>Supplier relationship</b>	Arcadyan signed a contract with suppliers to protect the rights and interests of both parties and maintain good relations.
<b>Stakeholder rights</b>	Interested parties communicate and make suggestions with Arcadyan to maintain legal rights and interests.

## 3. Information about Arcadyan's Employees

Arcadyan Taiwan headquarters and China CNC manufacturing center (Kunshan) decide whether to hire or not the employees according to personal traits and ability to the position. There

should not any different treatments depending on race, national or social origin, social class, descent, religion, physical disability, gender, sexual orientation, family responsibilities, marital status, political opinion, age or other discrimination.

Arcadyan Taiwan headquarters and China CNC manufacturing center (Kunshan) protects employees from any retaliation or threat during working or as a solvency work. Employees have the right to freely choose to leave, and can leave the company after completing all the separation procedures which following local laws and regulations. Any threat, abuse, exploitation or compulsive behavior in the workplace, employees can report anonymously through the complaint mailbox. If any sexually harassed, including posture, language, and physical contact, Arcadyan set up a sexual harassment complaint mailbox and a dedicated line on the internal website for employees to appeal and ensure proper handling of all appeals.

#### **4. New and Leaved Employees**

Arcadyan is the first professional and intelligent network terminal equipment company in China to integrate broadband, multimedia, wireless and internet communication protocols. The excellent research and development capability is the key factor for Arcadyan to maintain its competitive advantage. To ensure that Arcadyan maintains a competitive advantage in the rapid changes environment for technology and specifications, Arcadyan will formulate a business policy and development strategy for the coming year at the end of each year, and formulate an annual employment plan based on its strategy. HR department publicly publishes job information through the recruitment platform for recruiting. The recruitment process follows local government regulations and select the suitable employee by a fair and equitable way. By the end of 2018, the total number of Arcadyan Taiwan headquarter employees, Taipei Office and overseas employees was 587 employees. Arcadyan's R&D employees is more than 50% of total employees, and employees' male-female ratio is 71.72% for men and 28.28% for women; Management positions accounted for 78.85% of men and 21.15% of women. The main reason for the proportion disparity is due to job type and departmental background factors, and is not due to gender influence on employment or promotion opportunities. As long as they are due to job type and



departmental background factors, the proportion difference is not due to gender influence on employment or promotion opportunities. The total number of China CNC manufacturing center (Kunshan) is 2,150 employees, and the appointment ratio is 58.79% for men and 41.21% for women.

Overall number of employees (ARC)

Male	Female	Total
421	166	587
71.72%	28.28%	100.00%

Overall number of employees(CNC)

Male	Female	Total
1264	886	2150
58.79%	41.21%	100.00%

The number of male and female by job type (ARC)

Age	Under 30 years old		31~50 years old		Over 51 years old		Total
	Male	Female	Male	Female	Male	Female	
Management	0	0	53	17	29	5	104
	0%	0%	9.03%	2.90%	4.94%	0.85%	17.72%
RD	63	10	197	31	12	2	315
	10.73%	1.70%	33.56%	5.28%	2.04%	0.34%	53.66%
Non-RD	8	9	51	86	8	6	168
	1.36%	1.53%	8.69%	14.65%	1.36%	1.02%	28.62%
Total	71	19	301	134	49	13	587
	12.10%	3.24%	51.28%	22.83%	8.35%	2.21%	100.00%

Newcomers / Gender and Age (ARC)

	Male	Female	Total
Under 30 years old	23	7	30
	34.85%	10.61%	45.45%
31~50 years old	30	4	34
	45.45%	6.06%	51.52%
Over 51 years old	2	0	2
	3.03%	0.00%	3.03%
Total	55	11	66
	83.33%	16.67%	100.00%

Leave staff / gender and age (ARC)

	Male	Female	Total
Under 30 years old	19	10	29
	34.55%	18.18%	52.73%
31~50 years old	13	6	19
	23.64%	10.91%	34.55%
Over 51 years old	7	0	7
	12.73%	0.00%	12.73%
Total	39	16	55
	70.91%	29.09%	100.00%

## XII. Happy Workplace

### 1. Basic Salary for Personnel to Local Minimum Wage

Arcadyan establishes reasonable salary compensation and related management systems to ensure that Arcadyan's salary remuneration complies with relevant regulations and maintains market standards. Besides fixed monthly salary, Arcadyan also set various bonuses, such as year-end bonuses, patent bonuses, project bonuses, etc., and annual salary adjustment plan based on company operation profit and individual employee performance. The salary of all grassroots personnel in China CNC manufacturing center (Kunshan) is higher than the minimum wage required by local regulations.

Arcadyan strictly prohibits forced labor, protects employees' personal freedom and respects

employees' freedom of rights, including freedom of employment, freedom of separation, freedom of overtime and freedom of movement. It is forbidden to use any form of forced labor, including contract labor and bonded labor, and to protect employees from any work under reprisals or threats, or as a solvent job; employees have the right to freely choose to leave after completing the resignation procedures in accordance with the requirements of law.

## **2. Employee Benefits**

Arcadyan employs employees based on their personal traits, abilities and positions, and will not be different treatment because of race, ethnicity, social origin / class, descent, religion, gender, sexual orientation, marital status, political orientation, age or physical disability. Besides to hiring disabled people, Arcadyan also cooperate with government agencies to provide employment opportunities for visually impaired masseurs to meet the total number of employees in company is 67 or more, the number of employee with physical and mental disabilities is required to be no less than one percent of the total number of employees. (Current employment with physical and mental disabilities, employees: three moderate physical and mental disorder; visually impaired masseur: One severe physical and mental disorder and one moderate physical and mental disorder).

For Arcadyan employee welfare measures, besides to compliance with the labor law and government regulations, and establish the employee welfare committee, not only for employees' marriage, funeral, sickness and childcare allowance, but also regularly handle various clubs and tourism activities, birthday celebrations, evening parties, etc., to relax employees and interact with employees. All the above welfare measures have been well feedback by employees.

Arcadyan established "Employee Welfare Committee" to provide welfare benefits according to law, regularly hold welfare committee meetings and handle employee welfare activities to support the diversified development of community activities. The welfare plan includes birthday vouchers, annual vouchers, and employee health promotion and leisure activities, family day, domestic and foreign tourism, marriage and funeral subsidies, employee and family hospitalizations, end-of-life evening lottery, health check, etc. In addition to insuring labor

insurance for employees, welfare committee also plans to provide employee group insurance (including life insurance, accident insurance, cancer insurance, medical insurance) to provide perfect personal protection.

Arcadyan Club Activities	
<b>Ball sports</b>	Billiard club, badminton club, basketball club, softball club
<b>Fitness class</b>	Yoga club, dance club, qigong club
<b>Art and literature</b>	Painting club, hand football club, patchwork club

Arcadyan also provides the following welfare activities:

- a. Employees have special leave in accordance with the Law of Labor, and superior to the Law of Labor to have 5 days sick leave with paid each year.
- b. Set up staff restaurant and coffee bar to take care employees' dietary needs.
- c. Provide free parking spaces for employee.
- d. Set up a dedicated space for female employees to breast-feeding.
- e. Set up comfortable activity center and equipment for employees to relax and exercise.
- f. Create a comfortable public space as rest environment for employees to relax during breaks.
- g. Cooperate with public welfare groups to hold regular massage activities.
- h. Order variety of discount coupons
- i. Hosting a year-end party with employees and family members.
- j. Organize domestic and foreign tourism activities, and provide tourism subsidies to encourage employees to participate.
- k. Giving company uniforms (summer: Polo shirt, winter: coat).
- l. In order to support government's encouragement of childbirth and respond Compal group's policy, Arcadyan issue a bonus to the employee fertility. So far, it has issued the donation more than NT 14 millions.

### 3. **Minimum Notice Period for Operational Changes**

Arcadyan maintains a smooth communication channel and harmonious labor relations. To reviews the process of resignation, retirement and organizational change through the labor

conference and promises to inform employees at least four weeks before major changes in operations.

**4. Welfare Program and other Retirement Plans**

Arcadyan handles retirement matters in accordance with relevant laws and regulations and Arcadyan set up a special account of the Pension Supervisory Committee to ensure that the old pension is fully paid. Employees who were on board since July 1<sup>st</sup>, 2005 are all retired under the “Labor Pensions Ordinance”. Prior to June 30<sup>th</sup> , 2005 (inclusive), the incumbent had chosen to follow the new or old retirement system.

**5. Parental Leave**

Regardless of the gender of employee who are compliance with Gender equality law, can apply for parental leave, and after the expiration, will arrange for reinstatement in the original unit (or related unit). During the period of 2018, the reinstatement rate of Arcadyan employees that applying for baby staying was 60%.

Since 2011, in response to government and Compal group's encouragement of birth policy, employees have child allowance of NT 66,000 per child. By 2018, Arcadyan has given birth to more than 200 newborn babies, and issued a total of more than NT 14 million in birth bonus.

Gender	Number of qualification for parental leave	Number of applicants for parental leave	Application rate	Reinstatement	Reinstatement	During parental leave
Female	13	3	23.08%	2	66.67%	1
Male	20	2	10.00%	1	50.00%	0
<b>Total</b>	33	5	15.15%	3	60.00%	1

Note: The reinstatement rate cannot be calculated because the application for staying in this year is still in the period of staying.

China CNC manufacturing center (Kunshan) applied for 27 parental leave in 2018 and reinstatement 25 employees. The number of employees still in service is 21 (77.78%).

**6. Employee Education Training and Promotion of Employee Professional Ability Program**

Arcadyan focus on employee development and talent cultivation. Arcadyan actively encourages employees to participate in various training courses and self-learning. In addition to setting the annual training budget, Arcadyan also cooperate with train institutions to handles professional courses according to company's operational strategy, functional structure and

training needs. The annual course focus on technology and knowledge, and innovative thinking to help the team to keep technology ahead.

Course category	Course content
<b>Professional technical courses</b>	Cooperate with schools and professional institutions to handle professional courses, continue to study R&D knowledge, innovate thinking, and help R&D teams to maintain technological leadership. Invite expert speakers to enhance the ability to develop, apply new technologies and solve problems.
<b>Leadership management course</b>	Conduct leadership management courses, develop leadership and expand vision. Introduce new and old generation exchange sharing courses to take care of new employees.
<b>Co-communication course</b>	Through project management or team communication courses to help R&D and project managers to communicate and cooperate with each other, and enhance daily project operations and improve problem-solving effectiveness.

- a. Training Course: Based on the concept of talent cultivation, follow Arcadyan's core values of “innovation, harmony, transcendence, service” to conduct various courses, encourage employees to actively participate, continue to research and develop knowledge, innovative thinking, and assist Arcadyan to maintain technological leadership. In the past three years, more than 179 professional-type courses have been held and more than 250 courses in all courses. Arcadyan is committed to the continuous cultivation of all kinds of talents and their competitiveness. In addition to R&D professional category, the professional courses also include information skills, engineering majors, regulatory patents, and financial accounting. The total number of courses for each type is as follows:

Year	Professional	Management	Common	Total
<b>2016</b>	45	8	22	75
<b>2017</b>	48	2	17	67
<b>2018</b>	86	4	28	118
<b>Total</b>	179	14	67	260

- b. Training Hours: In 2018, more than 1,492 participants in the course. Through internal training and external training, the total number of training sessions has exceeded 4,798 hours. Moreover, through the introduction of IT new technology and the sharing of professional experience of internal lecturers, Arcadyan successfully built the knowledge-sharing platform “Arcadyan Content Sharing System (CSS)”. Employees can view teaching materials, course audio and video files in the Arcadyan's domain, and share departmental professional information. By using CSS to integrate the Arcadyan's resources, employees cannot only get the information they need quickly, but also encourage the department to establish a knowledge management mechanism and encourage employees to learn.

a. Number of hours of training in the past three years

Year	Total hours	Average hours	Male		Female	
			Number of participants	Average hours	Number of participants	Average hours
2016	2,663	4.8	445	3.06	177	1.22
2017	2,033	5.15	309	4.03	86	1.12
2018	4,798	3.22	1,277	3.17	215	3.46

b. Average number of participation hours of supervisor in the past three years

Year	Non-supervisor		Supervisor	
	Number of participants	Average hours	Number of participants	Average hours
2016	431	2.97	191	1.31
2017	211	2.75	184	2.4
2018	1068	2.89	424	4.06

c. Number of hours of participation in all ages in the past three years

Year	Under 30 years old		31-50 years old		Over 51 years old	
	Number of participants	Average hours	Number of participants	Average hours	Number of participants	Average hours
2016	559	0.9	1880	3.02	224	0.36
2017	576	1.46	1230	3.12	227	0.58
2018	327	2.85	1037	3.24	128	3.98

7. **Employees Regularly Performance and Career Development Assessment**

Arcadyan provides electronic performance appraisal system for supervisor to evaluate the past half-year work distribution and effectiveness of the colleagues, and to set work or project goals for the next half year to ensure the goals of individuals, departments and companies are consistent. The proportion of participation in regular performance appraisal is over 90% in 2018 (Except the supervisor at or above vice president and the newcomer who has on board for less than 3 months on the date of assessment). In view of the promotion and development of high-performance employees in the performance appraisal results, according to the functions (jobs) needs to provide leadership management courses, develop cross-team communication and cooperation; improve problem-solving performance and other capabilities for the preparation for job promotion or professional development.

Evaluation period	Gender	Job category	Number of employee to be assessed	Number of people not involved in the assessment	Actual number of people involved in the assessment	Participation ratio
First half year in 2018	Female	R&D engineering	50	5	45	90.0%
		Technical engineering	25	0	25	100.0%
		Administration	52	0	52	100.0%

		Marketing	47	2	45	95.7%
	Male	R&D engineering	315	20	295	93.7%
		Technical engineering	50	1	49	98.0%
		Administration	12	4	8	66.7%
		Marketing	31	6	25	80.6%
			582	38	544	93.5%

Evaluation period	Gender	Job category	Number of employee to be assessed	Number of people not involved in the assessment	Actual number of people involved in the assessment	Participation ratio
Second half in 2017	Female	R&D engineering	48	2	46	95.8%
		Technical engineering	26	1	25	96.2%
		Administration	49	0	49	100.0%
		Marketing	45	2	43	95.6%
	Male	R&D engineering	325	13	312	96.0%
		Technical engineering	49	0	49	100.0%
		Administration	14	3	11	78.6%
		Marketing	34	3	31	91.2%
			590	24	566	95.9%

## 8. Discrimination Incidents and Improvement Actions Taken

Arcadyan prohibits all forms of discrimination and adopts the principles of fairness and equality in matters such as recruitment, remuneration, welfare, training, promotion, dismissal or retirement. Moreover, do not discriminate on the differences of employees' race, social class, nationality, religion, disability, or gender. It also prohibits any form of sexual harassment, including posture, language and physical contact, and establishes a complaint mechanism. If any discriminatory behavior, it can directly appeal to human resources department, and will arrange for personnel without conflict of interest to find out the facts and take corrective actions.

## 9. Representatives of Worker in Safety and Health Committee

Arcadyan always pays attention to the welfare and care of employees, and establish labor-management committee. The staff will elect five employee representatives for a term of four years, and hold a labor conference every three months to collect employee opinions to communicate and improve the problems of both employers and employees. In addition, employers and employees can also maintain good relationships through system platforms and e-

mail communication. Arcadyan's labor relations have always been harmonious, and there are no losses due to labor disputes. The labor representatives of Arcadyan labor committee accounted for 50% according to regulations.

#### 10. Injury, Occupational Disease, Number of Days Lost, and the Number of Work-related Deaths

A healthy mind and body is the most important asset, Arcadyan hopes that employees can work in a safe environment. Arcadyan complies with environmental, safety and health regulations and management systems, and implements in all workplaces. To establish a security system, regularly conducts disaster prevention and fire drills, advocates environmental safety training, and provides comfortable facilities for employees to relax work to improve employees' satisfaction, reduce accidents such as work-related accidents and absenteeism.

Disability injury statistics	Male	Female	Total	Remark
Disabling Frequency Rate (FR) <sup>1</sup>	0	0.190	0	1. FR (Disabling Frequency Rate) = Number of work injuries *1,000,000/ Total working hours 2. SR (Disabling Severity Rate) = Total days of work injury *1,000,000/ Total working hours 3. FSI (Frequency-Severity Indicator) = Disabling Frequency Rate * Disabling Severity Rate /1,000 4. ODR (Occupational Disease Rate)= (Number of occupational diseases / Total working hours)*200,000 5. LDR (Lost Day Rate)= (Working injury loss days / Total working hours)*200,000 6. AR (Absentee Rate)= (Work injury leave + sick leave + physiological leave + leave)/ Total working days *100% 7. The number of work-related injuries and the day of work-related injuries did not include traffic accident on the way to and from work.
Disabling Severity Rate (SR) <sup>2</sup>	0	0.379	0	
Frequency-Severity Indicator (FSI) <sup>3</sup>	0	0.000072	0	
Occupational Disease Rate (ODR) <sup>4</sup>	0	0	0	
Lost Day Rate (LDR) <sup>5</sup>	0	0.075861	0	
Absentee Rate (AR) <sup>6</sup>	0.97%	1.29%	1.07%	
Total deaths due to work-related injuries	0	0	0	

#### 11. Occupation-related Diseases with High Incidence and High Risk of Workers

Taiwan headquarters (Hsinchu) is R&D-based office operations; China CNC manufacturing center (Kunshan) is an assembly plant for network communication products, so there is no high-incidence and high-risk work related to occupation.

#### 12. Health and Safety Related Issues in Labor Agreements

Healthy employees can improve the work quality and efficiency; promote the company's sustainable development. It is the Arcadyan's responsibility to provide a healthy environment, create a healthy workplace and promote health management. We hope to create a healthy



workplace and prevent potential occupational injuries and risks through the attitudes and actions of employees' self-management, and show company care and the concept of employee health.

At the beginning of the design of all software and hardware facilities in Arcadyan office environment, the protection of employee safety is the first consideration to ensure that employees can get the maximum protection at work. Each entrance and exit has an access control system. The toilet is equipped with an emergency pressure buckle. Each floor has an AED (Automatic External Defibrillator). The main entrance and exit also have security personnel to be guarded 24 hours a day to protect the personal safety of the employees. And all electrical and mechanical or fire-fighting equipment (such as fire alarms or fire extinguishers) are regularly maintained or repaired according to their specified time to ensure that they are in the best available state.

Employees are the most valuable assets of Arcadyan. The health of employees is the key to success and sustainable development. It is Arcadyan’s goal to provide a healthy and comfortable working environment for all employees. Arcadyan also sets up health center and employs professional nursing staff and doctors. Specifically, Arcadyan will work hard in the three major directions of "health education", "health promotion" and "health management" to ensure the health of each employee.

**a. Arcadyan health Center Planning**

Category		Activities	
Health education	<ul style="list-style-type: none"> <li>✓ New recruit health education training</li> </ul>	<ul style="list-style-type: none"> <li>✓ First aid training</li> </ul>	<ul style="list-style-type: none"> <li>✓ Health and epidemic prevention</li> </ul>
Health promotion	<ul style="list-style-type: none"> <li>✓ Comfortable nursing room</li> <li>✓ Pap smear</li> <li>✓ Special health lecture</li> </ul>	<ul style="list-style-type: none"> <li>✓ Visually impaired massage</li> <li>✓ Breast ultrasound examination</li> </ul>	<ul style="list-style-type: none"> <li>✓ Colorectal cancer screening</li> <li>✓ Weight loss activity</li> <li>✓ Aerobic exercise</li> </ul>
Health management	<ul style="list-style-type: none"> <li>✓ New personnel health examination</li> <li>✓ Health examination abnormality management / tracking</li> </ul>	<ul style="list-style-type: none"> <li>✓ On job employee health examination</li> </ul>	<ul style="list-style-type: none"> <li>✓ Serving meal staff health examination</li> </ul>

**b. Health examination**

Arcadyan holds on-site health examination every year, and health check items and frequency are better than regulatory requirements. According to health examination result and “Health Grading Management” to select the employees who need to follow up. Class A: no abnormality, regular participation in health examination every year. Class B: health examination results are

obviously abnormal, it is necessary to complete the re-examination tracking within 6 months, and the doctor or the nurse will evaluate the recommendations to reduce the risk of disease. Class C: health examination results are severely abnormal, need to go to hospital for re-examination tracking. Arcadyan will arrange one-on-one health consultation for Class C employees to have the best health. The participation rate of health examination in 2018 was 97.5%.

Area	Gender	Number of people who should take health examination	Number of people who did not take health examination	Actual number of people who taking health examination	Participation Rate
Hsinchu	Male	334	6	328	98.2%
	Female	165	5	160	97.0%
Taipei	Male	54	3	51	94.4%
	Female	5	0	5	100%
		558	14	544	97.5%



**c. Maternity protection**

Arcadyan set up dedicated nursing room and provide related equipment and consumables, such as bottle sterilizer, refrigerator, locker and comfortable breastfeeding chair, so that has a safe and comfortable nursing environment.



**d. First aid training**

Since 2015, Arcadyan has set up AEDs (six units) on each floors. In order to promote AED and first aid skills, Arcadyan holds first aid training courses every two years. To invite professional lecturers and divided the courses into written teaching and practical operation to makes the staff more skilled.



#### e. Weight loss activity

In 2018, the Health Center held an employee weight loss activity with a total of 78 participants. The total weight loss was 306.4 kg and the average weight loss was 3.9 kg/person.

##### Activity- Latin aerobics



##### Activity- Light food DIY



**Lecture- Easy to lose weight**



**f. Health promotion**

The health promotion promoted by Arcadyan Health Center in 2018 is as follows:

**Activity- Pap smear**



**Activity- Yoga**



**Activity- Quit smoking**



**Activity- Vision examination**



## Lecture- Eating habits and health examination report - ten major abnormalities



### XIII. Social Participation

Arcadyan established the "Corporate Social Responsibility Committee" to cooperate with Compal group or social welfare groups to promote various social welfare activities. The committee develops relevant plans every year, organizes various lectures, experience activities, and assists colleagues in implementing corporate social responsibility in daily life. In the community, Arcadyan actively responds to social contribution, social services, social welfare, consumer rights, human rights and other public welfare activities every year. Arcadyan plans and implements through the Corporate Social Responsibility Committee and does its best to fulfill corporate social responsibility by giving and rewarding social activities.

Activity project	Activity details	
<p><b>Long-term concern</b></p>	<p>Through long-term attention and input, Arcadyan hopes to provide stable support to public welfare organizations and to exert greater effects on the promotion of social welfare. Since 2010, Arcadyan has been a long-term donation of social welfare organizations including Huashan Social Welfare Foundation, Taiwan Fund for Children and Families, Ai-Heng Training Center for Mental Retardation, Eden Social Welfare Foundation, Spinal Cord Injury Foundation, World Peace Council, Huaguang Intelligent Development Center and other groups.</p>	
<p><b>A loving, double charity</b></p>	<p>In order to make Arcadyan and employees' donations make greater benefits, Arcadyan promotes a loving, dual charity that both public welfare groups can get help.</p>	<ul style="list-style-type: none"> <li>- Purchase the Children Are Us Foundation cake gift box and transfer it to the disadvantaged children in the hometown.</li> <li>- Sponsored World Peace Council drama public performance, and transfer tickets to vulnerable children.</li> <li>- Donate charity clubs to flea market activities, and transfer income to charity groups.</li> <li>- Purchase rice from remote tribes and transfer it to Huaguang Intelligent Development Center.</li> </ul>

<p><b>Move your fingers to do charity</b></p>	<p>E-commerce is not only a business act, but also the spirit and effect of public welfare. Arcadyan often achieves the goal of social care and public welfare through group purchases of employees.</p>	<ul style="list-style-type: none"> <li>- 137 people subscribed to Children Are Us Foundation Festival cake to send love to the hometown °</li> <li>- 40 people subscribed to World Peace Moon cake to send love to the hometown.</li> <li>- Participate in online donation of charity group Christmas gift (129 persons)</li> </ul>
<p><b>From zero to charity</b></p>	<p>Since the promotion of the "from zero to charity" public welfare donation program in 2015, colleagues can easily do public welfare by keeping a small amount of money to increase the willingness to participate in charitable donations.</p>	<ul style="list-style-type: none"> <li>- From zero to one, the accumulation of less becomes more, and integration projects: it is easier for colleagues to participate in charitable donations.</li> <li>- At the beginning of the year, Arcadyan conducted a donation survey on employees, established a database for charity donations, and select charity or activities to implement donations during the middle and end of the year.</li> <li>✚ 37 people participated in the 9<sup>th</sup> Dream Flying Plan of Xu Chaoying Foundation.</li> <li>✚ 52 people participated in Xu Chaoying Foundation's "Love at the end of the year, free donation"</li> <li>✚ 78 people participated in the World Peace Council to sponsor the activities of children's meals for the winter vacation.</li> <li>✚ 87 people participated in the charity association sponsored by the Andrew Charity Association.</li> </ul>

1. Annual results

- Arcadyan donation amount was NT. 821,553; employee donation was NT. 763,847, totaling NT. 1,585,400 in 2018.
- 553 persons participated in public welfare activities
- 1,696 persons receive the donation or help

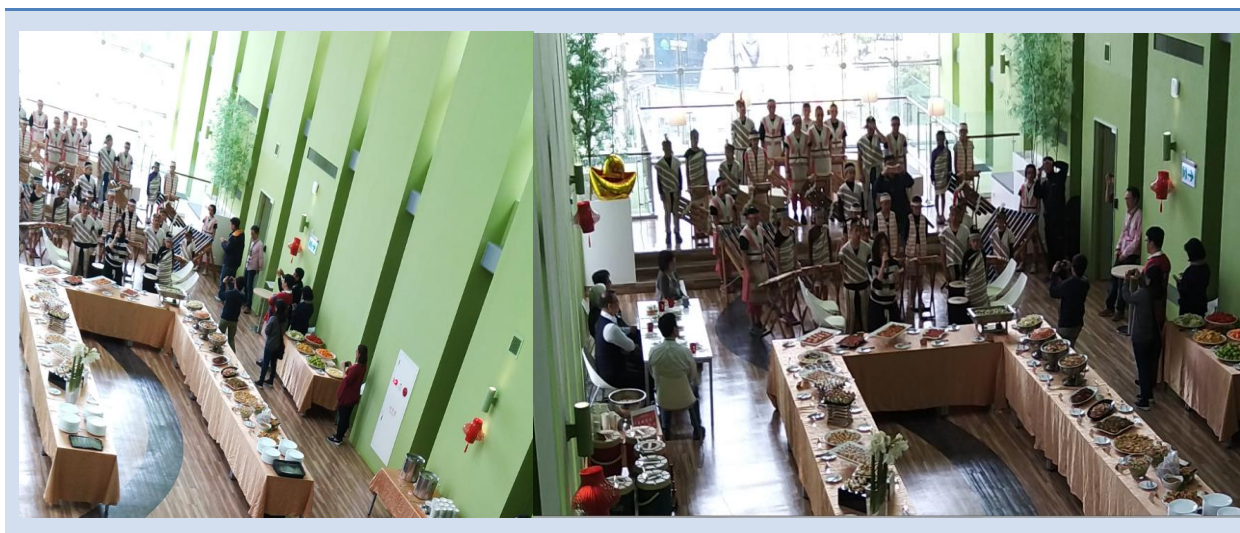
2. Other donations

Donation of charity groups	Charity activities, donations and sponsorships
Taiping Elementary School	Subsidy fee includes: after-school care plan, dream project, new year's stolen goods and graduation stolen goods
Huashan Social Welfare Foundation	Huashan Social Welfare Foundation
Visually impaired institution	Hold a visually impaired massage
Children Are Us Foundation	<ul style="list-style-type: none"> <li>- Subscribed Mother's Day and Mid-Autumn Festival cakes and transferred to vulnerable children.</li> <li>- Family care service plan for the elderly with mental retardation and multiple workplace observation plan for mentally handicapped</li> </ul>
World Peace Council	Purchase tickets for charity dramas and transfer to vulnerable children, sponsor charity drama performances, breakfast expenses for poor children, meals for vulnerable children during winter vacation, subscribed Moon cake

				to send love to the hometown.
Hsinchu Association	Life	Education	Care	Sponsored summer camps, year-end thanksgiving concert funds; assisted the network construction for new office.
Eden Social Welfare Foundation				Vulnerable Children's Fund and Childhood pre-treatment fundraising plan
World Vision Foundation				Donate "Investing in abundance of life" and helping students
Xu Chaoying Foundation				Participate in the Dream Flying Plan; "Love at the end of the year, free donation" activity
Taiwan Association	People's	Food	Bank	Food donation
Ai-Heng Training Center for Mental Retardation				Public welfare second-hand market
Hsinchu Fund for Children and Families				Sponsored the garden tour and the disadvantaged children's talent course funding, donated summer camp activities; hired the college students from Hsinchu Fund for Children and Families working in summer vocation.
Spinal Cord Injury Foundation				Medical interviewer training program
Republic of China Interconnection Association	Resource			Sponsoring Mother's Day, family activities; donating English tutoring courses for Aboriginal and new immigrant children
Hsinchu Blue Sky Home				Sponsoring the youth for reunion dinner
Hsinchu Charity Group				Sponsoring public welfare second-hand market and donate money to Genesis Social Welfare Foundation.
Accton Foundation	Cultural &	Educational		Sponsoring social welfare activities
Huaguang Intelligent Development Center				Purchase rice from remote tribes and transfer it to Huaguang Intelligent Development Center
Kuen Tai Cultural and Educational Foundation				Provide pads to the remote primary school as a graduation gift
Andrew Charity Association				Donate to vulnerable children's food bank plan and winter holiday children's meal

### 3. Photo for Social Participation Activities

#### Remote school elementary school children perform bamboo piano



Remote elementary school children show Taiko



Food donation to Taiwan People's Food Bank Association





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