# arcadyan

# ARCADYAN

# Corporate Social

# Responsibility Report

## 2019

arcadyan

create a better future

## Contents

## Arcadyan Corporate Social Responsibility Report

Ever since the publication of our first corporate social responsibility report in 2018, Arcadyan has been publishing one report per year. This report is a compilation of the Company's activities and performance in the areas of corporate governance integrity management, supply chain management, green products, environmental protection, happy workplace, social participation and so forth in the previous year. The current report discloses information relevant to 2019 and has the same reporting period as the previous publication. This report is available in Traditional Chinese and English can be found on the website at CSR reports zones for interested stakeholders to download.

## Scope of Report

In the 2019 Arcadyan Corporate Social Responsibility Report, the scope of disclosure covers the Taiwan headquarters (Hsinchu) and CNC China production center (Kunshan). Compared with the 2018 report, the new AVC Vietnam production center (Yong Phuc) was added. Arcadyan has disclosed the following subsidiaries in its annual financial report, including companies located in the United States, Germany, China, South Korea, Brazil, the United Kingdom and Australia.

## Report Publication

Current Version: June 2020
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Next Version: June 2021

## Contact Us

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## Report Drafting Principles

Arcadyan's CSR report has been prepared using the latest GRI framework introduced by the Global Reporting Initiative (GRI) in 2016. The contents updated in 2018 were used as a reference when compiling GRI 303 and GRI 403. Content contains four reporting principles: stakeholders' inclusivity, context-based sustainability, significance, and integrity and six qualities: accuracy, balance, clarity, comparability, reliability, and timeliness. The report has been inspected by an independent third party, namely AFNOR Asia, Ltd., and has been verified to meet the requirements of GRI Standards Core option and AA1000 Assurance Standard type 1, moderate level. The Assurance Statement is enclosed in the appendix for reference. Other certifications and accreditations that relate to specific contents in this report are as follows:

- Financial data: quote financial reports that have been certified by an accountant
- Product Carbon Footprint Verification (Green Mark): TÜV Rheinland Taiwan Ltd.
- Waste data verification: TÜV Rheinland Taiwan Ltd.
- Quality management (ISO 9001:2015/ TL 9000:2016): AFNOR Asia, Ltd.
- Environmental management (ISO 14001:2015): AFNOR Asia, Ltd.
- Product ecological design management (ISO 14006: 2011): AFNOR Asia, Ltd.
- Occupational Safety and Health Management (OHSAS 18001: 2007/ TOSHMS: 2011): AFNOR Asia, Ltd.
- Operation Continuity Management Procedure (ISO 22301:2012): AFNOR Asia, Ltd.
- Information security and information risk management (ISO 27001:2013/ ISO 27005:2011): AFNOR Asia, Ltd.

## Letter from Chairman

「Technological innovation, people-oriented, self-surpassing, customer-oriented」

Sustainable business commitment, giving back to the society what we have taken from it.

For the entire Netcom industry in 2019, the situation is still grim and changes are still huge, which is a year full of challenges. The Netcom industry is also facing multiple levels of risk impacts, including: the ongoing Sino-US trade war at the tariff level has triggered the rapid migration of many production bases and supply chains from China; Components at the supply chain level are also triggered by chain adjustment effects due to changes in production resources, regional shortages and price transients of key components; as well as the inter-industry price war oriented to the industrial ecology, the never-ending situation has exerted great pressure on the company's supply chain management capabilities and flexibility。For this reason, Arcadyan will continue to gradually expand the scale of the Vietnamese manufacturing center, increase production capacity, and actively build a local supply chain in 2019, diversify the risks of overseas production bases, and increase the flexibility of manufacturing in multiple locations to obtain greater economic scale. At the same time, continue to technical collaborate with the key chipset vendors and front-end suppliers to lead new technology trend and penetrate the product markets together. Judging from the overall results, in 2019, with the concerted efforts of all Arcadyan colleagues, we have achieved outstanding results that broke past records in performance.

In operating strategy, the main products of Arcadyan business include: Broadband gateway products, Wireless LAN products, Digital home multimedia application, Mobile communication networking products and Wireless video products etc. In particular, the total shipment volume of integrated access device (IAD) products ranks among the top three in the world throughout the year. In 2019, the consolidated revenue reached a record high of NT$32.89 billion, which is one of the top companies in Taiwan in Netcom industry.。In the future, in addition to cultivating our business, we will continue to explore and develop new integrated technologies such as 5G, Internet of Things (IOT), Internet of Vehicles (IOV), artificial intelligence (AI), and big data cloud analysis to achieve a strategy of extending our business and maximizing operating benefits. And fully cooperate with the technology suppliers in various markets to develop the local telecommunications market. It is expected that in 2020, with the increasingly mature integration of new technologies and business models, the revenue of Arcadyan innovative product line will reach the goal of 5-10%.

On the employee care front, Arcadyan provides employees with a safe and healthy working environment, comprehensive career plans, and competitive salaries and benefits so that they may devote themselves to work free of worries. we set up a variety of communication channels to care for employees and understand their needs. Through efforts such as health promotion events, we offer our employees' opportunities to develop their strengths and promote their quality of life. To combat low-childbirth rate, Arcadyan continues to offer its childbirth incentive subsidy of NT$ 66,000 for each child in 2019, helping to support the families for a total of 30 newborns. In 2019, we will introduce new employee assistance programs and health promotional plans for employees to step up the Company's existing efforts towards employee care.

On the Environmental sustainability front, Arcadyan has focused on mitigation and adapting to climate changes through sustained involvement in green product designs, energy saving management practices at production facilities, reduce unwanted waste during production through systematic management approaches. By ensuring

effective use and control of energy resources, Arcadyan shall create more economic value and environmental benefits to become more competitive. Arcadyan has been taking part in the Carbon Disclosure Project (CDP) for ten consecutive years (2009-2019).

On the corporate social responsibilities (CSR) front, Arcadyan will be working with its supply chain partners and jointly share the responsibilities in compliance towards regulations on environment, labor rights, management system, ethics, safety and health. This is achieved by asking our suppliers to sign and comply with CSR Commitment and Declaration to Ban/Non-Use of Conflict Minerals. In 2019, we collaborate with our customers and suppliers to jointly a supplier CSR management audit project, so that we can inspire more to join our cause as we contribute toward a sustainable future.

In the 16 years since its establishment in 2003, Arcadyan has not only been deeply cultivating the field of Netcom, seeking the greatest achievement for the industry, and continuing to create value with excellent operational performance, but also in our daily business, implementing cooperation with employees, customers, shareholders, investors, Communities, suppliers, governments, etc. establish good interactions in order to create a better future for society and the new generation. The above results show our achievements and determination to practice "technical innovation, people-oriented, self-surpassing, and customer-oriented". For this reason, in this era of ever-changing trends, we can stand on the present and move forward steadily.

Chairman of the Board

# CSR Organization and Visions

### 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 2019, Arcadyan has also introduced many related certifications such as TL 9000, ISO 9001 quality certification, ISO 14001 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 CNC China Production Center. 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:

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

- 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」 the company's corporate social responsibility policy is formulated as follows:

- 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.

## 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.

- 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 goals related to Arcadyan's operations from the 17 Sustainable Development Goals (SDGs) proposed by the United Nations as a sustainable project.

- Since 2013, Arcadyan has obtained SA8000 (Social Accountability) certification at CNC China production center to show to stakeholders Arcadyan's commitment to social responsibility. AVC Vietnam production center also continues to promote corporate social responsibility related issues and policies,

and plans to has certification in 2020. Arcadyan 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 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.

# Key Distinctions and Achievements for Arcadyan

## 2019 R&D Design Performance

- Mar. 2019　Passed certification of Wi-Fi Easy Mesh Agent
- Jul. 2019　Developed DOCSIS 3.1 cable modem home gateway
- Jul. 2019　Developed Android TV set-top box with smart speaker function
- Oct. 2019　Developed 10GPON BOSA on-board IAD
- Nov. 2019　Developed 5G indoor home gateway
- Dec. 2019　Establish Cloud Management System
- 2019　12 patent certifications

## 2019 Environmental Performance

- Continued to participate in the International Carbon Disclosure Project (CDP) climate change survey since 2009, and won B Management Level in 2019
- Promote TUV Green Mark certification, a total of two products have passed certification and are designed to be halogen-free products
- Promote TUV Green Mark certification and product labeling
- The product is 100% compliant with WEEE/ RoHS/ REACH Annex 17 (SVHC)/ POPs/ California Act No. 65
- Comply with the Swedish Taxation Law for Electrical and Electronic Products, and enjoy tax reductions
- Obtained a patented design for a friendly environment-natural diversion heat dissipation structure module

## 2019 CSR Performance

- CNC China production center won the Responsible Business Alliance (RBA) audit and silver medal in 2019
- 2019 JAC（Joint Audit Co-operation）CSR Best Practices Company
- Silver Medal Award of EcoVadis Global Corporate Social Responsibility (CSR) Rating

# Stakeholder Engagement and Identification of Material Issues

## Identification of Important Stakeholders

Arcadyan collects the opinions of all stakeholders and collects feedback suggestions to understand the issues of concern as an important basis for the sustainable development of Arcadyan. The CSR team refers to the relevant information listed by the industry, and lists the interested parties that may be contacted in the internal discussion bar, and then the team members select them according to their weight: **Shareholders, Customers, Employees, Suppliers, Government and Non-Government Organizations** six types of Arcadyan stakeholders, and maintain a smooth communication channel with stakeholders according to the "Stakeholder Communication Table" below:
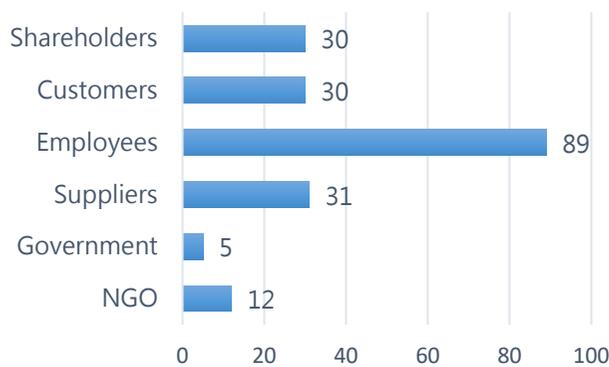
| Stakeholders | | Communication Channels | Frequency | Main Issues of Concern | Corresponding chapters | Page |
|---|---|---|---|---|---|---|
| Shareholders | Investors shareholder bank | Participation in Charity Events | Yearly | Operating performance | Corporate Governance Integrity Management | 17 |
| | | On-site Visits | | Business integrity | Code of ethics and anti-corruption | 25 |
| | | Email discussion | Irregularly | Communication with Stakeholders | Corporate Governance | 23 |
| | | Corporate visit | | | Stakeholder Engagement and Identification of Material Issues | 13 |
| Customers | Foreign and domestic customers | Regular communication | Monthly Irregularly | Customer service management | Customer Health and Safety | 30 |
| | | Discussion conference | | | Customer Privacy | 30 |
| | | Email discussion | | Technology and Research | Technology and R&D | 26 |
| | | Customer audit | | Green product | Green product | 35 |
| Employees | Employees, foreign employees, and part-time worker | Labor-management Communication | Quarterly | Labor/ Management Relations | Happy Workplace | 51 |
| | | Welfare Committee | | | Employee Rights | 57 |
| | | Performance appraisal | Bi-yearly | | Employee Benefits | 58 |
| | | Education Training | Irregularly | Career development and training | Employee Educational and Training | 59 |
| | | Internal BBS bulletin board | | Occupational Safety and Health | Occupational Safety and Health | 61 |
| | | Internet and Employee Comment Box, Complaint Hotline, Complaint mailbox | | Labor practices and human rights | Human Rights and Communication | 55 |
| Suppliers | Suppliers, contractors, outsourcers, and other partners | Email discussion | Irregularly | Supplier chain management | Supply Chain Management | 31 |
| | | supplier assessment and on-site audit | | Green product | Green product | 35 |
| Government | City Government, Fire Bureau, Environment Bureau, Police station | Correspondence | Irregularly | Energy consumption and management | Environmental Protection | 42 |
| | | Participate in regulatory seminars | | Waste Management | Disposal and Recycling | 48 |
| | | On-site Visits | | Occupational Safety and Health | Occupational Safety and Health | 61 |
| NGO | Social Welfare Group, Foundations | Email discussion | Irregularly | Local community and charity involvement | Society Care and Public Welfare | 66 |
| | | Participation in Charity Events | | | | |

## Identification of Material Issues

For the main stakeholders, apart from collecting information through various communication channels and feedback mailboxes, Arcadyan also uses questionnaires to understand the issues of concern of the stakeholders every year. The topics are mainly based on the various issues of the GRI Sustainability Reporting Standards (GRI Standards) issued by the Global Reporting Initiative, and a total of 14 issues in response to domestic and foreign trends, issues of common concern in the electronics industry, etc. The method was sent to all stakeholders to fill in, and 197 valid questionnaires were successfully received.

After the statistics are completed, the CSR team discusses the weight of each stakeholder's importance to intelligence, multiplying it by the percentage of each stakeholder's concern for each major issue, and calculating stakeholder's total concern for each issue. The degree is used as the "ordinate".

Taking the operation of Arcadyan as the starting point, each major issue's impact on the Economic, Social, and Environmental will be evaluated and the total average will be added as the "abscissa". Draw the XY scatter diagram as follows. According to the XY intersection between the high attention of the stakeholders and the high impact on the economic, social, and the environmental, the characteristics of the Arcadyan industry will be compared again. According to the highest degree of concern and highest impact, sort out **"Operating Performance"**, **"Business Integrity"**, **"Technology and Research"**, **" Customer service Management"**, **"Supply chain Management"**, **"Green Product"**, **"Labor/Management Relations"**," **Career development and training"**, **Occupational Safety and Health"** and **"Labor practices and human rights"** 10 material issues. Although the remaining topics have low priority, relevant policies and results are also presented in the report.

**Statistic chart of Questionnaires Received**
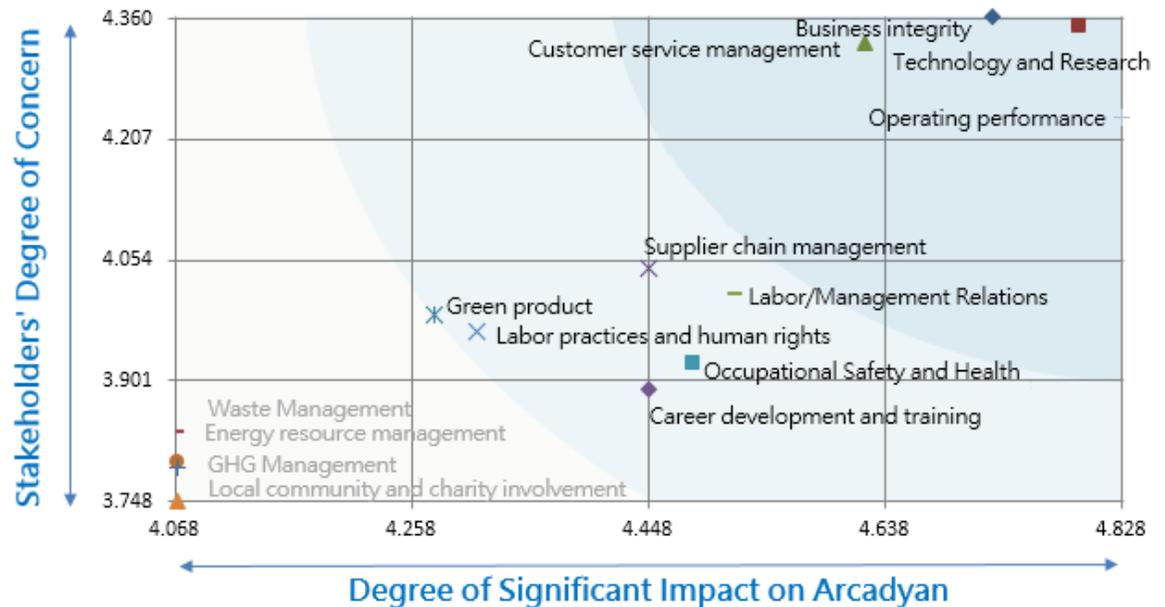
## GRI Material Issues for Arcadyan

| Material issues | | GRI | Description | Material Description | Impacted Boundary | | | | SDGs | Page |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Supplier | Production-Center | Arcadyan | Customer | | |
| Economic | Operating performance | GRI 201: Economic Performance | Financial information in revenue, expenses, economic impact by climate change, indirect economic impacts, etc | Economic performance is the most concerned topic of all stakeholders. We will disclose information on operating performance and market competitiveness in 2019 to implement sustainable business operations. | ○ | ● | ● | △ | 8 DECENT WORK AND ECONOMIC GROWTH | 21 |
| | Business integrity | GRI 206: Anti Competitive Behavior | Policy or monitor of business integrity and anti-corruption. | Arcadyan and its stakeholders all value the integrity of corporate governance, rooting in national or international laws, and regulating anti-competitive, anti-trust or monopoly behaviors. | ○ | ● | ● | △ | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS | 25 |
| | Technology and Research | | Managing research and development of technology innovation, process innovation, and environmental innovation | Excellent R&D capability is a key factor for Arcadyan to maintain its competitive advantage, which explains its competitive advantage and long-term and short-term business development plan to respond to market demand. | ○ | ● | ● | ● | | 26~27 |
| | Customer service management | GRI 416: Customer Health and Safety GRI 418: Customer Privacy | Product safety, customer satisfaction survey and customer management. | Customer satisfaction is the focus of Arcadyan's continuous operation. Only by ensuring the privacy of customer information and product security can there be a sustainable cooperation model. | | ● | ● | ● | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | 29~30 |
| | Supplier chain management | GRI 204: Procurement Practices GRI 308: Supplier Environmental Assessment | Economic impact assessments of the suppliers (include new suppliers) and actions taken, social/environment assessment of the suppliers, conflict minerals management etc. | Continuously strengthening the management of the supply key and increasing the proportion of local procurement are our key projects | ● | ● | ● | △ | 17 PARTNERSHIPS FOR THE GOALS | 31~34 |
| Environmental | Green product | GRI 301: Materials | Developing product for reducing environmental impacts, Safety of products.. | The production of environmentally friendly products is the common concern of all customers and employees, among which green products are the focus of attention of the stakeholders of Arcadyan. | ● | ● | ● | △ | 13 CLIMATE ACTION | 35~41 |
| Social | Labor/Management Relations | GRI 401: Employment | Type of employment, communication with employees, and employee well-being | Arcadyan focuses on labor and employment, employee welfare, talent cultivation, occupational health and safety, and equal treatment of all Arcadyan employees. Only healthy employees can have a booming industry. | | ● | ● | | 8 DECENT WORK AND ECONOMIC GROWTH  16 PEACE, JUSTICE AND STRONG INSTITUTIONS | 54~58 |
| | Career development and training | GRI 404: Training and Education | Employee performance management and development, career planning and development, training and education | | | ● | ● | | 4 QUALITY EDUCATION | 59~60 |
| | Occupational Safety and Health | GRI 403: Occupational Health and Safety | Maintain and train for the employees of the occupation, types of injury a, occupational diseases, lost days, and absenteeism, and number of work-related fatalities. | | | ● | ● | | 3 GOOD HEALTH AND WELL-BEING | 61~65 |
| | Labor practices and human rights | GRI 406: Non Discrimination | Human right, freedom of association, collective bargaining, non-discrimination, no child labor, etc. | Arcadyan abides by international human rights organizations and labor policies and must not discriminate against others for any reason, engage in human trafficking, or force others to work. It also follows relevant laws and regulations as a key project for selecting new suppliers and annual audits. | ○ | ● | ● | | 10 REDUCED INEQUALITIES  5 GENDER EQUALITY | 55~56 |

Type of impact:  ●:High impact  ○:Normal impact  △:Business impact

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# Corporate Governance Integrity Management

## Industry Overview and Development

2019 is the first year of 5G commercialization. Continuing the industrial trend of 2019, the popularity of 5G will persist. Up until November 2019, there are over 27 countries and more than 50 telecommunication companies around the globe building non-standalone network. Due to the quick construction, the cost was relatively lower.

However, according to the forecast of Institute for Information Industry, the 5G NR in Standalone operation shall play an important role in developing the greatest advantage of 5G. The 5G NR in Standalone operation can provide the advantages of large bandwidth, high speed and low latency, putting new intellectualized innovative services in various areas into practice and propelling the supply chain development of equipment.

For the technology of 5G, in the mid of 2020, the formation of Rel-16 Standard is expected to be completed. In addition to enhancing operating efficiency and defining matters such as 5G specific structure, it will focus on enhanced Mobile Broadband (eMBB), massive Machine Type Communications (mMTC), Ultra Reliable Low Latency Communications (uRLLC) and other development of technological standard of vertical industrial application. The subsequent R17 standard will focus on strengthening the functions of vertical application.

Meanwhile, according to the forecast of Deloitte Taiwan, corporates building private 5G network will become a new trend. There are over 100 large scale corporates around the globe which will begin testing and building highly customized, confidential and self-reliant 5G vertical network to increase competitive advantage.

Not only will 5G technology be applied in corporate private network, AI and IoT technologies which have gain much popularity in recent years will integrate with 5G technology and develop more diversified and innovative applications in various vertical industries, such as smart manufacturing, smart energy management, smart public security, smart transportation, smart medical services, high quality visual entertainment. The collaboration between different industries will be getting much closer. The integration of technological applications will help corporates realizing much higher manufacturing capacity and enterprise value. Current and future Wireless LAN and Wired networking product trends and competition

I.    **Wireless LAN equipment:**

To seek greater business opportunities in IoT, in 2019, IEEE announced that the transmission speed of Wi-Fi 6 technology could reach up to 10Gbps. The specifications of Wi-Fi 6 would be determined in mid-2020 which more mobile phones, routers and other products will adopt. Under the same wireless LAN networking framework, Wi-Fi 6 allows corporates and service providers to support multiple users and arrange for simultaneous scheduling, which is the best solution for alleviating the internet overloading and supporting new applications while retaining the use of old ones.

Further, due to new specification of Wi-Fi developing into a high speed, low latency and multi-connection trend, which corresponds to the technological development philosophy of 5G and can complement the indoor communication blind spot of 5G technology, while lowering the building cost of the telecommunication operators. It is expected to have more mutual integration with 5G technology.

II.  **Wired networking equipment:**

According to the report issued by Institute for Information Industry, the global DSL subscribers are declining. Compounded by the impact of the trade war, the growth of global broadband CPE products among broadband market has slowed down.

For the infrastructure of fiber network, fueled by the surge in IP flow and demand for application of large bandwidth, and considering the integration effect with the construction of 5G networking, many telecommunication operators from the Europe, US, Japan and Korea are building their 10G PON upgrades to fulfill the 8K streaming services, 5G backhaul network and other high speed transmission and low latency applications. Amongst the technologies are 10G EPON, XGS-PON and NG-PON2, in which each has its own market supporters. The market is still making observation as to which will become the mainstream technology.

Integrating the R&D organization of upstream (dual-band wireless multimedia gateway controlling wafer and dual-band wireless multimedia decompressing wafer and other critical components) and downstream (provision of R&D platform) industries, providing networking system structure and fueling the development of communication related industries.
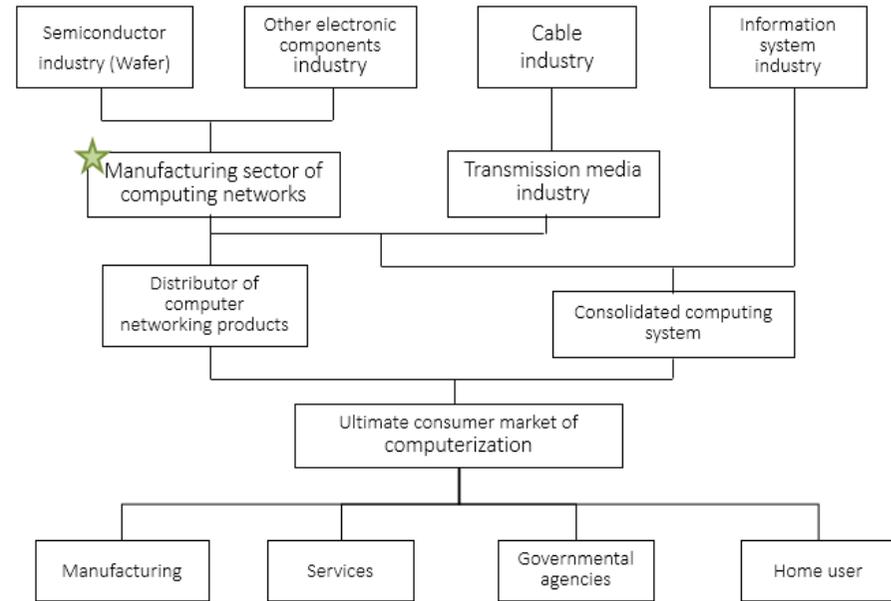


☆: The position of Arcadyan in the production chain

## Company Overview

Established in 2003, Arcadyan incorporates the best of Broadband access, Multimedia and Wireless infrastructure into its expertise. This winning combination creates an innovative approach to broadband access technology development and optimizes audio/video streaming quality.

Arcadyan develops products with the end-user in mind. We are dedicated to pursuing high quality technology development and ensuring consumers get a rich and enjoyable experience from our products. In addition, our development team engages with leading researchers and developers, both in-house and external, to develop best-in-class platforms and implementations for our latest value-added innovations.

## Market Scope

Arcadyan provide end-to-end solutions that help our customers differentiate their products in the marketplace. We supply leading-edge solutions designed to enhance the user's experience while allowing customers to achieve fast time-to-market and remain competitive. We add value to the entire product development cycle from creation to fulfillment.

Arcadyan understand our customers' needs for combination solutions, backwards compatibility and standards-based platforms on which to develop. To address these needs and delivers a full line of broadband access and digital home solutions, such as:

- DSL CPEs
- 802.11a/b/g/n client solutions
- Wi-Fi modules
- FTTx solutions
- Mobile Broadband products
- IP Set-Top Box
- Power line communication



Arcadyan provides innovative broadband/wireless/multimedia products for specialized design-in requirements as well as add-on products to enhance today's products with wireless convenience.

## Vision

- Create a better future through networking
- Become a global leader in broadband access and multimedia terminal products.
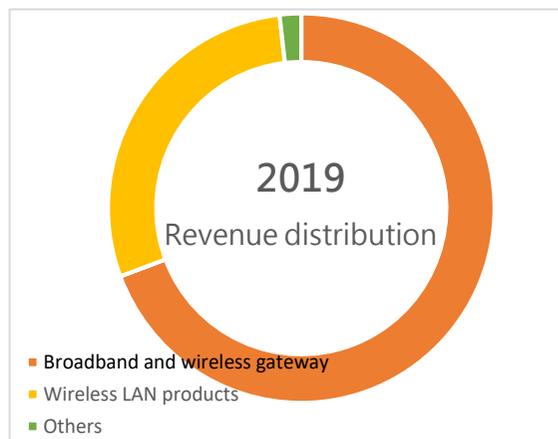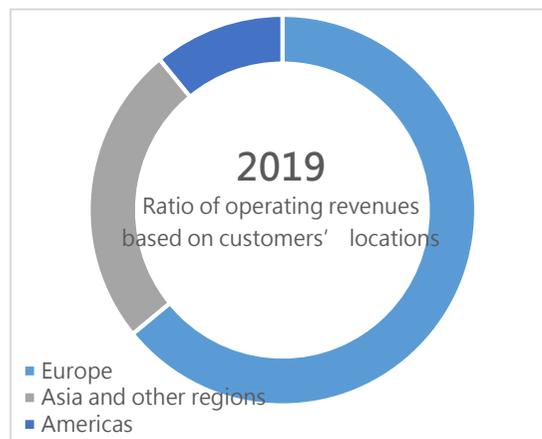
## Core Values

- **Innovation:** We must actively review our competitive advantages and continue to create new core competitiveness through trans-department integration. We encourage learning from the outside world then making improvements within the organization.
- **Harmony:** We emphasize a "people-centric approach" based on trust and respect for the individual. We all believe in honesty, commitment, coordination, teamwork and efficiency. We work together to use business resources to further our future development. In such an environment, everyone can continue to grow and contribute, leading to a culture of cooperation.
- **Surpass:** Everyone must challenge their own limits and strive to surpass themselves. We must think outside of the box and learn to reject assumptions. We believe that all waste can be reduced and there is always a better way of doing things.
- **Service:** We put customers first and strive to make customers our long-term value partner. We must use top-down engineering as well as continued improvements to meet the needs of internal customers and suppliers to drive competition reforms.

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## 2019 Business Prospects

Facing the uncertainty of market and economic trade, keep enlarging the existing telecom market share and developing new telecom customers in emerging markets; expanding the product categories of existing telecom customers, from fixed line to optical fiber products; providing the rapid customized products and services to all customers; and supporting the customers to design and develop competitive products by their needs, in order to efficiently make market segmentation for them.

And operate with local technical suppliers in each market segment and country, to penetrate the local telecom markets together. Technical collaborate with the key chipset vendors and front-end suppliers to lead new technology trend and penetrate the product markets together. And keep scaling up the capacity of Vietnam manufacturing site, and optimizing the capacity transferring between our China manufacturing site and Vietnam manufacturing site, in order to maximum reduce the business impacts of tariff war.

Arcadyan professional R&D team combines the company's internal R&D talents and industry experts to jointly develop an advanced platform and fully functional products to provide complete services to customers. Its operating proportions are:



2019
Ratio of operating revenues based on customers' locations

- Europe
- Asia and other regions
- Americas



2019
Revenue distribution

- Broadband and wireless gateway
- Wireless LAN products
- Others

## 2019 Consolidated Income Statement

Unit: NT$ thousand

| Item | 2017 | 2018 | 2019 |
|---|---|---|---|
| Ordinary shares | 1,891,190 | 1,936,190 | 2,085,350 |
| Operating revenues | 20,110,209 | 26,621,262 | 32,897,900 |
| Operating costs | 17,308,220 | 23,465,062 | 28,545,525 |
| Net income | 650,310 | 880,183 | 1,356,986 |
| Earnings per share | 3.21 | 4.61 | 6.85 |
| Total assets | 15,581,848 | 21,253,480 | 25,530,985 |
| Total liabilities | 6,657,441 | 11,779,682 | 14,190,051 |
| Total equity | 8,924,407 | 9,473,798 | 11,340,934 |
| Per-share dividend | 2.0 | 3.5 | 4.7 |
| Total Salary (Individual finance report) | 815,660 | 973,080 | 1,207,647 |
| Income tax expense | 137,018 | 237,841 | 345,838 |
| R&D investment tax credit | 47,315 | 49,896 | 63,756 |

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## Worldwide Locations

Arcadyan's products are sold worldwide and in a globalized manner, providing complete and rapid service. Arcadyan is the 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 aftersales service

Headquarters: Hsinchu, Taiwan

Production Center: CNC (Kunshan, China), AVC (Yongphuc, Vietnam)

Sales Offices: Taiwan, China, Japan, Korea, Europe, America, Australia

R&D Centers: Taipei, Hsinchu, Shanghai, Guangdong

Technical Support: Taiwan, Spain, Germany, US, Canada, Argentina

## 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 china production center 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 likelihood of risk, and set recovery priorities, IMP (accident management plan), BCP (business continuity plan), and BCP 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 27001 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 managements.

## Corporate Governance

Arcadyan concern operational transparency and corporate governance, and in accordance with " Regulations Governing Procedure for Board of Directors Meetings of Public Companies", 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 " Corporate Governance Best Practice Principles for TWSE/TPEx 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



## Board of Directors

| Title | Name | Academic Credentials |
|---|---|---|
| Director | Compal Electronics Inc. | Not applicable |
| Chairman | Compal Electronics Inc. Representative: Chen Jui-Tsung | Bachelor of Electrical Engineering, National Cheng Kung University Vice Chairman and CSO of Compal Electronics Inc. |
| Director | Compal Electronics Inc. Representative: Wong Chung-Pin | Master in Management Science, National Chiao Tung University Director and CEO of Compal Electronics Inc. |
| Director | Compal Electronics Inc. Representative: Peng Sheng-Hua | Master in Electrical Engineering, National Taiwan University Director and Executive Vice President of Compal Electronics Inc. |
| Director | Compal Electronics Inc. Representative: Liu Chung-Pao | EMBA, National Chiao Tung University Vice President of Arcadyan Technology Corporation |
| Director | Tseng Chao-Peng | MBA, Oklahoma State University President of Arcadyan Technology Corporation |
| Independent Director | Lee Ying-Jen | PhD in Electrical Engineering, National Taiwan University Chairman of Litemax Electronics Inc. . |
| Independent Director | Wen Ching-Jang | PhD in Electrical Engineering, National Taiwan University Chairman of New E Materials Co., Ltd. |
| Independent Director | Yang Wen-An | Master of Commerce, National Taiwan University Chairman of Der Ben Financial Consulting Co., Ltd. |
| Director | Wei Je-He | PhD in Electrical Engineering, University of Washington Honorary Professor of National Chiao Tung University |

## Board of Directors structure

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 Remuneration 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. There were seven Board meetings during 2019, average attendance rate is 84.89%.

## Audit Committee

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. There were seven Audit Committee meetings during 2019, average attendance rate is 90.67%. Its main functions are:

1. Appropriate expression of Arcadyan's financial statements.
2. Accountant selection, dismissal and performance evaluation.
3. Effective implementation of Arcadyan internal control.
4. Arcadyan follows relevant laws and regulations.
5. Control the existence or potential risks of Arcadyan.

## Remuneration Committee

The 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. There were five Remuneration Committee meetings during 2019, average attendance rate is 86.67%. Its main functions are:

1. Establish and regularly review policies, systems, standards and structures for performance evaluation.
2. Regularly evaluate and determine the remuneration of directors and managers.

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## Code of ethics and anti-corruption

Arcadyan follows the law and strictly prohibits bribery, corruption, and collusion. For customers and suppliers, apart from complying with the Code of Conduct-Responsible Business Alliance (RBA), it also actively cooperates with customers' CSR requirements, and commitments to anti-corruption ethical standards. In addition to establishing an internal control system and an internal audit division dedicated to implementation, the internal audit division is responsible for overseeing the implementation of various policies and regularly reporting to the board of directors. In accordance with the " Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies ", the "Ethical Corporate Management Best Practice Principles" and "Business Integrity Procedures and Behaviors" have been adopted by the board of directors. Improper charitable donations or sponsorships, prohibition of unreasonable gifts, entertainment or other improper interests, prohibition of infringement of intellectual property rights, prohibition of unfair competition, prevention of products or services from harming interested parties. In addition, implement guidelines for enforcement and punishment and appeal systems for violations. In addition to strengthening the promotion of new employees, and actually implementing the business operations, the content is reviewed regularly and updated.

Arcadyan disclosing the "Enforcement of Corporate Integrity Management" and "Handling of Violations of Integrity" on the company's website, the company also conducts education, training and publicity when new employees arrive. In 2019, internal and external education and training on integrity management issues (including courses related to integrity management regulations and compliance, accounting systems and internal control) will be conducted for internal control and audit dept. and executive department personnel. The number of trainees is 3 and the number of course hours a total of 15 hours.

## Employee Code of Conduct

In order for employees to fully understand the importance of integrity, it is stated in the "Employee Code of Conduct" that they should strictly abide by the company's business ethics policy when engaging in daily work and business. maintain Arcadyan's reputation, and gain the respect and trust from customers, suppliers and other industry people. The main contents are:

1.      Employees should avoid any conflicts or possible effects between personal and company interests.

2.      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.

3.      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. Arcadyan will dismiss or dismiss employees in accordance with relevant laws and regulations or in accordance with the company's personnel methods for serious violations of integrity by company personnel.

## Complaint Channel for Violation of Ethics

Arcadyan strictly prohibits employees from taking bribes. It has mailbox (ETHICS@ARCADYAN.COM) on the website to receive anonymous stakeholders' complaints about any illegal conduct. Internal audit division is responsible for supervising business activities with a high risk of dishonesty within the business scope, placing a mutual supervision and check-and-balance mechanism, assisting the board of directors and management to check and assess whether the preventive measures established by honest business are operating effectively. Regularly evaluate the compliance status of relevant business processes, and prepare reports to report to the board of directors on a regular basis.

The relevant personnel of the company handling the report shall declare in writing that the identity of the reporter and the content of the report shall be kept confidential, and shall promise to protect the reporter from improper handling due to the report. In the event of someone engaging in dishonest acts against the company, the company will notify the judiciary and prosecutorial organization if the conduct involves illegal activities; if there is a public agency or public servant involved, it will also notify the government integrity agency. Arcadyan received no penalties from the authorities for violation of business integrity or anticorruption law in 2019.

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## Technology and R&D

Exceptional R&D capacity is the key to Arcadyan's continued competitive edge.

**Software development** is Arcadyan's core strength. Using a development-based software platform allows complex products to be converted into simple models and a quick response to market demand. Our own proprietary application software supports Triple-play, firewall functions, DLNA devices, remote management, Auto Provision and IPv6. We have established a strong sales record in the telecom market.

**Hardware 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 many 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:

**Hardware**
- Broadband/WiFi/LTE/PLC/STB
- Mechanical/ID
- RF Design & Testing
- In house Antenna Design

**NTC Testing**
- Multiple OS
- Multiple Protocols
- Network Manager S/W
- Application S/W

**R&D Overall Integration**

**Software**
- DLNA/IPTV
- Open WiFi/IGMP
- Web/TR069/UPnP
- Power Mang/HTTP

**FAE/PM Support**
- On Site PM Direct Cont.
- FAE in DE/ES/LA/US

| Engineering Verification Test | Design Verification Test |
|---|---|
| ● Thermal and 4corner test | ● Regulatory test |
| ● Functional test | ● Reliability test |
| ● Power measurement | ● 3rd party certification |
| ● Signal quality test | |
| ● Conformance test | |
| ● Interoperability test | |

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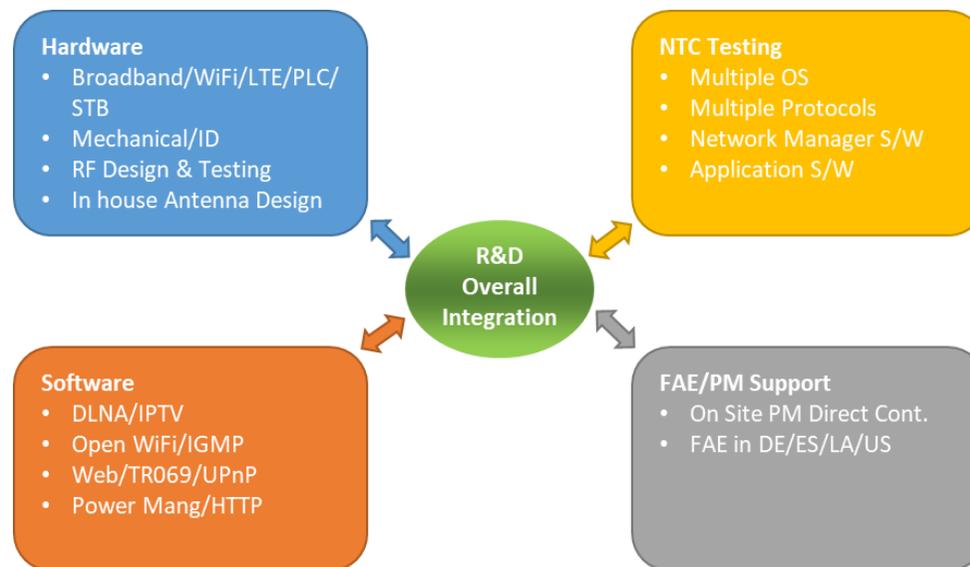
## Competitive Advantage

### Outstanding R&D team

Due to the outstanding capability of the R&D team and researchers with tremendous experience in the network communication, the Company has been designated by many international wafer makers as one of the Early Access Partners to take part in wafers development. As such, the Company is much earlier in obtaining the information of future products than its counterparts in the industry, allowing it to engage in product development sooner and thus gaining competitive advantages in launching new products.

### Product customization

With the support of the experience and capability of the R&D team, for the Access Technology, the Company has a mature R&D capability which allows it to develop software application and provide customers with high speed and strong functionality customized product design. The contribution of customized software application to customers includes:

i. Assisting customers to create market segmentation of products effectively.

ii. Providing customers with quick customized product services.

iii. Assisting customers in developing competitive products successfully.

iv. Collaborating with wafer makes in development to ensure the leading position of the Company in product technology and functions.

v. Reducing the customers' investment in customer service with user friendly interface.

### Deeply cultivation in the industry

Product technology accompanying by the growing customer demand in functionality, such as Carrier Wi-Fi, VDSL products, PON, IPTV and 802.11x solution is the focus and the Company thinks that the future of ISP market is promising and thus to build a direct collaboration business model with ISP in the future, even though the market development is time consuming, the Company insists on investing R&D resources to accumulate product development experience, so as to strengthen R&D capability in the integration of product technology.

### Fair Competition

Arcadyan pursues fairness and honesty to surpass our competitors. And seeks competitive advantage through outstanding performance rather than unethical or illegal business practices. The theft of patent information, processing of confidential information on transactions obtained without the owner's consent, or inducing current or past employees of other companies to disclose such information are prohibited. Every employee and employee endeavors to respect and treat the rights of company customers, suppliers, competitors and employees fairly. No employee or staff member may obtain unreasonable benefits from others through manipulation, concealment, abuse of privileged information, misrepresentation of material facts or other illegal transactions. In 2019, Arcadyan was not involved in anti-competitive behavior, antitrust and monopoly lawsuits, or closed legal actions.

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## Short-term and Long-term Development

With the diversification of network services and the development of multimedia applications, global consumer demand continues to increase, coupled with the active deployment of Chinese Networking device manufacturers, low-cost markets, heavy investment in research and development technology, and the decline after the sharp rise of key raw materials for products. The price trend is still full of uncertainty, and the future challenges are expected to become more severe. Therefore, Arcadyan will keep upgrading key technology, strengthening supply chain management flexibility, building cross-country manufacturing capacity, improving cost competitiveness, enhancing the advantage of time-to-market, and actively maintaining the mutual trust and mutual benefit with our telecom customers, so as to increase our market share.

| | Short-term development | Long-term development |
|---|---|---|
| Research and development strategy | • By means of technology integration and providing customization of products, grasping the market vibration and customer needs to increase market share.<br>• In addition to lowering costs, applying the technology and know-how the Company has accumulated to develop new product lines, introducing them to the market and increasing product quality and popularity. | • Combining the market demands, providing a complete product pipeline to customers, accumulating experience and technology integration capability in communication design, developing the wide range and depth of product lines, and other high-end products so as to satisfy customer and market needs.<br>• Continuing to improve the R&D process and efficiency, strengthening the R&D and core technology capabilities. |
| Marketing strategy | • Strengthening relationship with existing customers and actively developing new markets, expanding sales locations to building a complete marketing channels, providing professional consultation, maintenance and technical support for various products. | • Training professional marketing talents for the long term, developing long term relationship with customers, and grasping the market vibration and changes of network communication market and product development in a timely manner.<br>• Actively seeking development collaboration or strategic alliance with international brand name companies to expand international markets. |
| Production strategy | • Acquiring production location that will raise cost advantage and increase the competitiveness of products.<br>• Increasing production efficiency to control budgets and costs. | • Maintaining long term cooperation relationship with upstream suppliers to collaborate in development, so as to lower costs, and develop high quality and competitive products. |
| Operational and financial planning strategy | • Actively expanding business, increasing operating revenue, accumulating operating capital, and expanding the scale of operation.<br>• Increasing management efficiency, motivating the potential of Employees, strengthening internal organization. | • Using financial instruments from both domestic and foreign market to diversify financial risks.<br>• Strengthening worldwide business philosophy and management capabilities, actively training international talents and aim toward building an global enterprise. |

Currently, Arcadyan is doing well in the telecom market. Although it takes time to develop new business in the telecom market, the entry barriers for our competitors are also high. Therefore, we will keep focusing on the new business development in the telecom market, developing our self-own software codebases, and establishing a reliable Triple Play Enable software platform. In addition, Android TV OTT and IP STB have become our key product lines to develop. From the view of the business side, we will continue to explore new markets and new customers; from the view of technology side, enhance the integration between software, hardware, and whole system. Moreover, with the advent of the 5G era, Arcadyan has been following the latest 3GPP standards and actively developing 5G Small Cells, integrating fixed and mobile networks, and building our self-own technology for the 5G cross-domain ecosystem. This will make us to respond to the latest market demands immediately and cut in new customers quickly. In the future, we will dig out the market demands deeply, stay with the development trend of Triple Play closely, and integrate above technology into the applications of smart handheld devices. We are also targeting at the fields of Smart Home, IOT, IOV, AI analysis and cloud computing, and further invest in the developments of 5G/4G, IAD, IP STB/Android TV OTT, GPON and V2V (Vehicle to Vehicle) applications to provide the total solutions to all customers.

## Customer Satisfaction

Arcadyan attaches great importance to the interaction with customers. In addition to intensive communication with customers via email or telephone, Arcadyan conducts customer satisfaction surveys every year to review the performance of the four major aspects of "Service", "Quality", "Response" and "Delivery" with customers. Customer satisfaction is an important basis for Arcadyan to continuously improve its products and services. Based on customer evaluation records and audit scores, improvement plans are drawn up through the quality management system, and customer evaluation scores are set as the performance indicators of relevant units for continuous tracking customer satisfaction is committed to providing perfect product quality. In the past three years, the satisfaction survey results have reached 80% or more. Arcadyan will uphold the spirit of continuous improvement, and correctly and quickly propose response methods and overall solutions in response to customer problems and feedback.

In 2019, it won the Quality Supplier Award from British Telecom and Japanese Buffalo Telecom manufacturer. Arcadyan will continue to provide customers with high-standard and innovative quality and services to become the best partner of customers.

### Customer Satisfaction Survey Results in 2017 ~ 2019
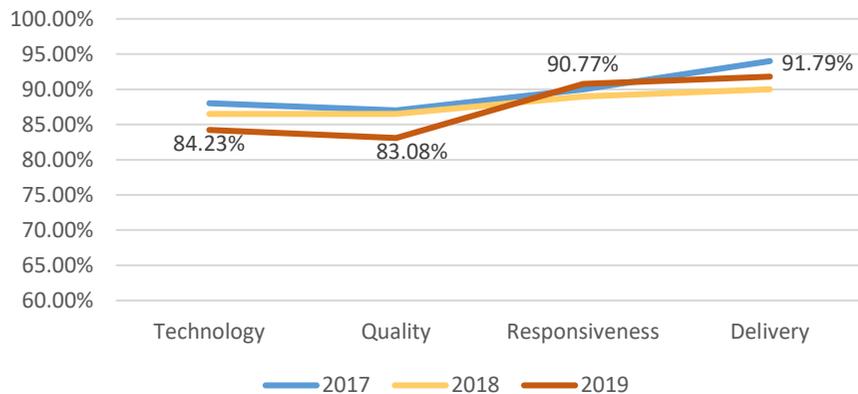
## Customer Health and Safety

For consumers, product safety is the most important, 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, CNC China production center import QC080000 hazardous substance management process, which requires all kinds of safety regulations from customer demand (RFQ) to design stage and mass production. The mass-produced products should 100% compliant with IEC 62368 and RoHS compliant, and Arcadyan have never violated product health and safety regulations and voluntary 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.

To ensure the safety of Arcadyan products under normal use and to prevent materials and parts from violating safety regulations, Arcadyan take IEC 62368 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, we have not violated any health and safety regulations regarding products and services.

## Customer Privacy

Arcadyan uses the ISO 27001 information security management system to monitor operating documents not to be leaked, to protect the integrity of customer documents and data, and to help units manage and reduce various threats and risks faced by information. And also established a "visitor appointment application system" in August 2019 to systematically monitor to improve visitor management efficiency and maintain information security. Arcadyan is committed to protecting customers' information in every step along the way and is operated based on the policy and plans of Arcadyan's "Information Security Committee." In 2019, Arcadyan received no complaints whatsoever concerning violations or leakage of customers' privacy.

## Membership of Associations

- Broadband Forum
- DECT Forum
- Digital Content Protection LLC
- Digital Transmission Licensing Administrator, LLC (DTLA)
- HDMI Licensing Administrator, Inc.
- Open Connectivity Foundation (OCF)
- Purple Foundation
- SD Association
- The Bluetooth Special Interest Group (SIG)
- Wi-Fi Alliance
- Z-Wave Alliance
- O-RAN Alliance
- RDK Management LLC
- Taiwan ITRI New Venture Association
- 5G Industry Innovation Development Alliance-Taiwan Electrical and Electronic Manufacturer's Association
- High-tech Industry Remuneration Management Association

# Supply Chain Management

## Supplier Management

Arcadyan continues to support the company's business development and enhance the company's market competitiveness, manage supplier quality, price, delivery, service, and environmental and social responsibilities, and jointly improve with them, develop the most appropriate procurement policy, and jointly operate responsible supply with suppliers' chain. At the same time, in order to ensure a healthy supplier's system, we regularly review supplier performance on a quarterly basis, conduct annual supplier risk assessments, and conduct inspections on suppliers from time to time. Arcadyan regards supplier management as one of the key actions to implement social responsibility. In addition to continuously requiring suppliers to improve their comprehensive performance, such as quality, delivery, service and price, it also directly incorporates the green product instructions required by customers into the supplier's progress. During material inspection procedures and supplier audit, source management is promoted and a continuous improvement cycle is implemented. In 2019, a total of 908 critical suppliers were collected. Green parts list and material test reports were collected, and supplier environmental performance evaluation was conducted. The receive rate reached 100%.

Arcadyan continues to promote CSR programs, and also participates in customers' supplier sustainable development program, and assisting suppliers to participate in and follow the sustainable development goals (Sustainable Development Platform, SDP). 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.

## New Supplier Assessment

The procurement department of Arcadyan requires suppliers to fill in the "Supplier Evaluation Form" and provide relevant ISO certification documents; the evaluation content includes quality, environment, engineering technology, and green products, etc. In 2019, there are 56 new supplier evaluations were completed, and the percentage of compliance with the standards reached 100%. At the same time, candidate suppliers are required to sign a CSR (Corporation Social Responsibility, CSR) declaration, and comply with the "Arcadyan Supplier Code of Conduct". If the audit results meet the evaluation score standards, they can be listed as Qualified Vendor List (QVL).

**Supplier Assessment Flow Chart**
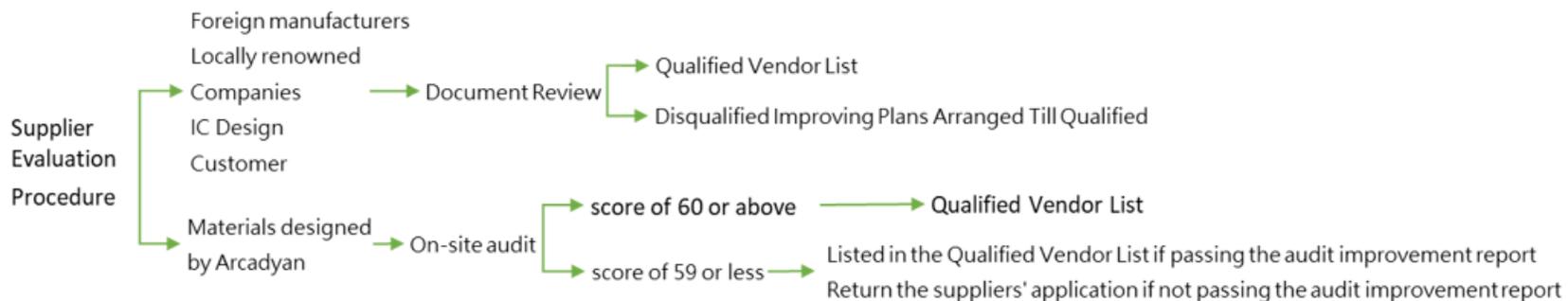
## Supplier Audits

To assist 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 ISO 9001 / ISO 14001 / OHSAS 18001 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 2019, CNC China production center implement total 14 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 CSR concept. Arcadyan also conduct CSR on-site 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. The production center follows "Environmental Management", "Health and Safety", "Child Labor & Juvenile Worker", "Forced Labor & Prison Labor", "Freedom of Association", "Discrimination", "Appeal & Complaint", "Disciplinary Practice", "Working Hours", "Wages and Compensation", "Business Ethics" and "CSR of Suppliers", etc., and plus the "Not Use Conflict Minerals Declaration". In 2019, 27 suppliers were completed CSR audited by document reviews and on-site audits.

Proportion of supplier CSR audit review items



33
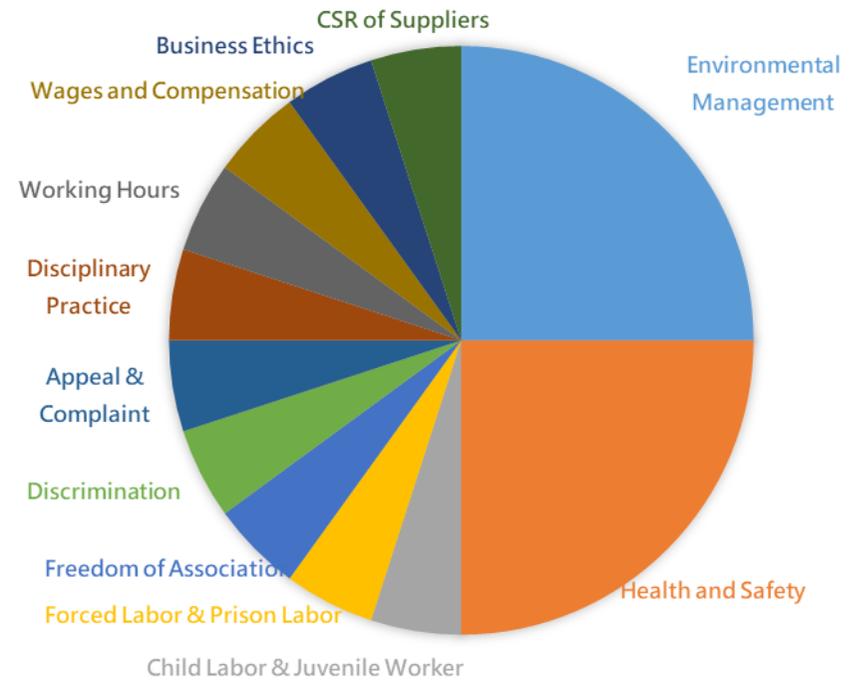
## Supplier Consultation

Arcadyan established a counseling platform to assist supplier partners to solve problems and grow together with them. This platform provides a new version of the green environmental protection procedures and announcements, and provides suppliers with correct and up-to-date regulatory content. At the same time, it also provides suppliers to query the status of green file upload and update.

Arcadyan will also host supplier seminars irregularly to promote the use of the green product management system platform and related cooperation matters in the future with suppliers. In addition, it will also convey new environmental issues in the current industry and communicate with them on environmental issues. In 2019, a total of 27 suppliers were counseling in the CNC china production center to complete the improvement of CSR related issues. The main improvement items are "Health and Safety", " Environmental Management ", " Working Hours ".

Arcadyan joined the Joint Audit Co-operation(JAC) supplier counseling program in 2016. During the process, it followed the customer's target and requirements for sustainable development and assisted suppliers in the audit, improvement of sustainable development issues and get supplier sustainable development excellence award.

**Supplier Sustainable Development Excellence Award**



## Local Procurement

Our HQ in Taiwan and production facilities in China function as key operating locations for the Company. In order to achieve better production and delivery efficacy and promote local economy, Arcadyan has been actively engaged in local procurement. There are hundreds of important components, including power supplies, electronic components, mechanical components, electromechanical components (printed circuit boards), etc. The suppliers are from Taiwan and China. As product applications and demand continue to rise, most suppliers continue to expand their production capacity and expand their factories in other regions of China. In order to reduce the energy consumption and environmental pollution caused by the transportation of raw materials and products, Arcadyan improves the effective use of packaging materials and space, adopts recyclable packaging materials. Guided by our philosophy for local procurement to reduce unnecessary transportation costs and carbon emissions. Arcadyan upholds the spirit of local procurement and continues to develop new local suppliers through procurement management procedures. In 2019, the proportion of local purchases from CNC china production center reached 85.93%. AVC Vietnam production center began trial mass production in the second half of 2019. The early-stage supply chain establishment has not yet been completed, and the proportion of local purchases is 12.76%.
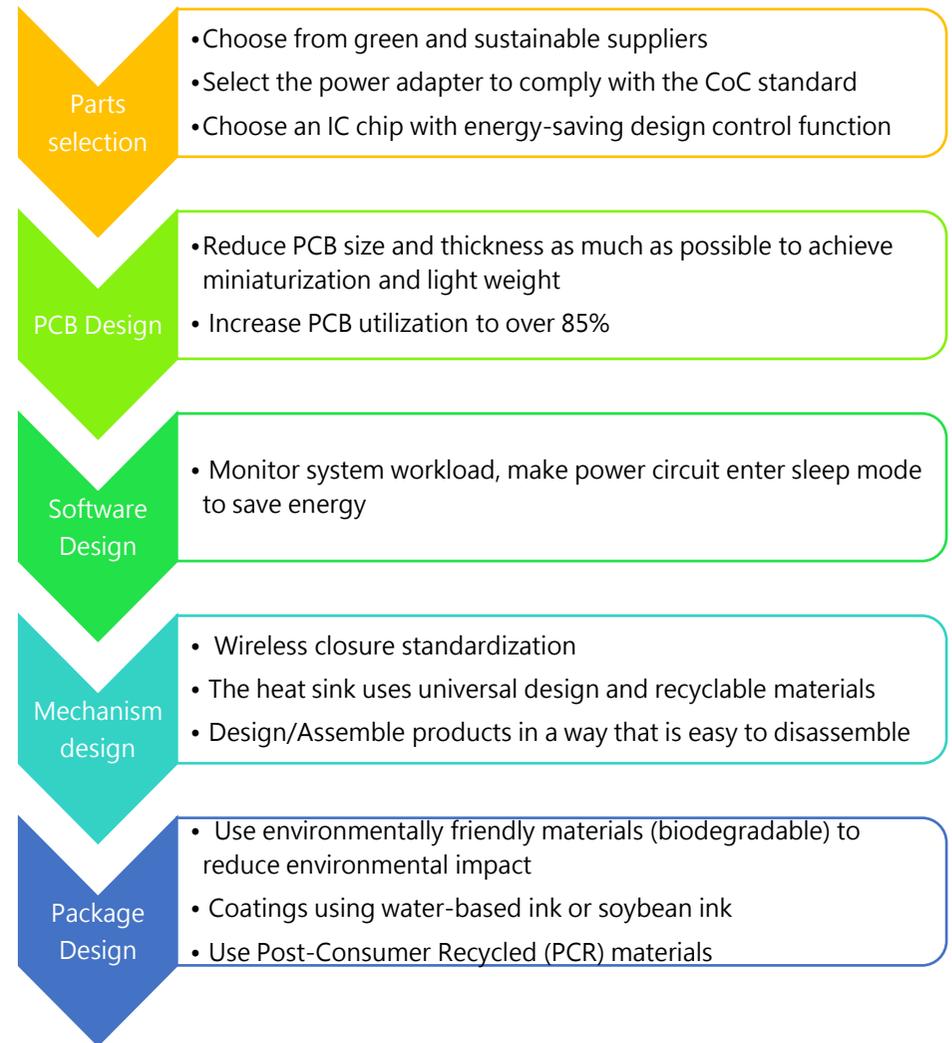
| | 2019 Local Procurement Rate(%) | Range of data |
|---|---|---|
| CNC<br>China production center | 85.93% | 2019 annual |
| AVC<br>Vietnam production center | 12.76% | 2019 Q3 、 Q4 |

# Green Products

## Green Products

The green design thinking of Arcadyan products is based on the "Product Life Cycle (PLC)", which considers the environmental impacts of various life cycle stages such as raw material procurement, manufacturing, transportation and distribution, consumer use to disposal and recycling. Therefore, at the beginning of product design, not only focus on customer needs and functionality, but also energy-saving and low-carbon design to comply with national sales and regional regulations, such as the EU's Eco-Design Requirements for Energy-relative Products. The core direction of the product design of the green concept is "selection of low-toxic materials", "energy-saving design" and "easy disassembly, recycling and less packaging". At the same time, in accordance with international trends and the needs of stakeholders and customers, environmentally friendly design is carried out to achieve the best Eco-effectiveness.

Since 2015, Arcadyan has planned a life cycle assessment (LCA) and product carbon footprint software operation training plan for the carbon inventory and ISO 14006 product ecological design system. In 2018, we had ISO 14006 product ecological design certification. CNC China Production Center implemented product life cycle data collection training in 2017 and completed internal audits. The assessment content includes four parts: purpose and scope definition, life cycle investigation and analysis, life cycle impact assessment and life cycle interpretation. In addition to a complete understanding of the implementation of product environmental impact assessment, the environmental information disclosure report is used as a necessary reference document for external verification. In 2019, following the ISO 14006 product ecological design specification, the results of the research and development and design of Speedport Smart 3 products were introduced. Compared with the previous generation series products, the carbon emissions were reduced by 19.344 KgCO2e, accounting for 5% of the total, and successfully obtained the TUV green label and carbon footprint certification.

**Parts selection**
- Choose from green and sustainable suppliers
- Select the power adapter to comply with the CoC standard
- Choose an IC chip with energy-saving design control function

**PCB Design**
- Reduce PCB size and thickness as much as possible to achieve miniaturization and light weight
- Increase PCB utilization to over 85%

**Software Design**
- Monitor system workload, make power circuit enter sleep mode to save energy

**Mechanism design**
- Wireless closure standardization
- The heat sink uses universal design and recyclable materials
- Design/Assemble products in a way that is easy to disassemble

**Package Design**
- Use environmentally friendly materials (biodegradable) to reduce environmental impact
- Coatings using water-based ink or soybean ink
- Use Post-Consumer Recycled (PCR) materials

### PCR Post-Consumer Recycled Content

Eco-design policy is the core of Arcadyan's initiative, avoiding the use of materials that have an impact on the environment, and using plastics with high recycling potential is our continuous improvement and optimization direction. Since 2015, Arcadyan has introduced 100% recycled plastics into Post-Consumer Recycled (PCR) plastic parts. Use of recycled plastics needs to evaluate the impact on the structural strength, so we try to use clip-on design in the design process, or use fewer screws to avoid the difficulty of recycling in the final stage of the product. Design of PCR materials needs to consider the characteristics of the plastic type, such as ABS or ABS + PC. Arcadyan uses 65% to 100% recycled materials in the new organization and is expected to save about 100 tons of new plastics every year.



**Product Circularity**

**Recycling**
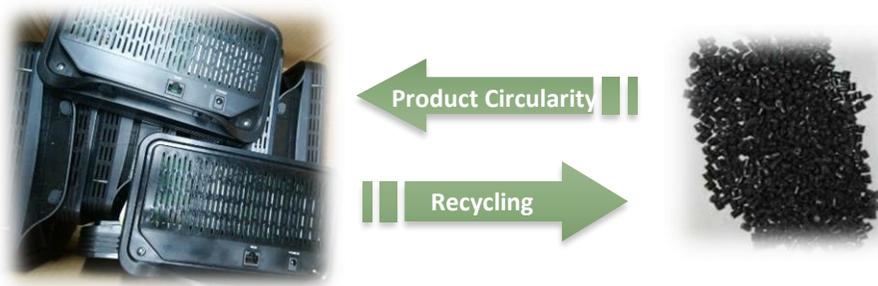
### Clip-In Design

The clip-on design simplifies the operation of tools used in the process, and saves the relevant sandwich structure in the process, saving Cycle Time by about 5 seconds. In the rework station or maintenance stage, compare the qualified rate of the box opening structure. Use of snap-in type opening and locking will reduce the scrap of the shell by about 5-10%. It is estimated that the annual carbon savings from activities will be about 15 tons of $CO_2e$.

### Environmentally Friendly Heat Dissipation Design

In natural convection environment, the air duct of the heat dissipation structure module gradually shrinks with the evolution of the miniaturization of electronic equipment, so the heat dissipation performance becomes more critical. Arcadyan improves the heat convection structure to promote the heat exchange between cold and heat convection, thereby reducing the product temperature.
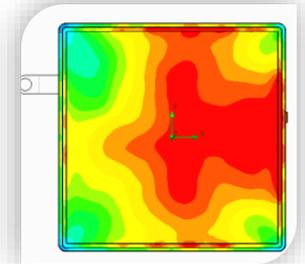


By optimizing the design of the broadband gateway products, energy consumption is reduced by about 6% compared with the previous generation series products. Not only can the heat dissipation performance be improved, but also the service life of the product can be prolonged.

### Environmentally Friendly Packaging Design

It is Arcadyan's goal to continuously reduce packaging materials. During the research and development process, we optimize the design of packaging methods for each model, and changes the stacking method to increase the percentage of cubes used, thereby achieving the objective of reducing carbon footprint. At the same time, on the inner board of the fixed product, Arcadyan uses recycled paper or packaging made of Forest Stewardship Council (FSC) cardboard, and printed with vegetable ink to reduce the burden on the environment; the inner structure uses bio Degradable materials, such as paper foam whose ingredients are industrial starch, plant fiber and water. The low-carbon production method can be directly recycled or used as a compost material, with low pollution and no harmful residues. For the products shipped by Arcadyan in 2019, the average proportion of a product using recycled paper is about 50%

## Raw material management

In an effort to deliver environmentally friendly products, Arcadyan systematically manages and controls the GP Data Application Form from the R&D stage to ensure that all products are compliant to pertinent international regulations, directives and customer demands, and use Arcadyan Green Parts Material Substance Declaration Checking List conducts part composition survey. In light of updates to our customers' environmental protection standards, global environmental protection laws and regulations, and requirements for green product management systems, the QC 080000 hazardous substance management process was introduced in the CNC China production center; to meet customer needs, maintain customer health and safety, and actively develop halogen-free products, and promise to use non-conflict mineral source parts. For each management please refer to the following descriptions:

## Waste Electrical and Electronic Equipment Directive, WEEE

At the design stage, Arcadyan considers customer demands, 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):

| Waste Electrical and Electronic Equipment Directive (WEEE) |
| --- |
| 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 |

## 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.
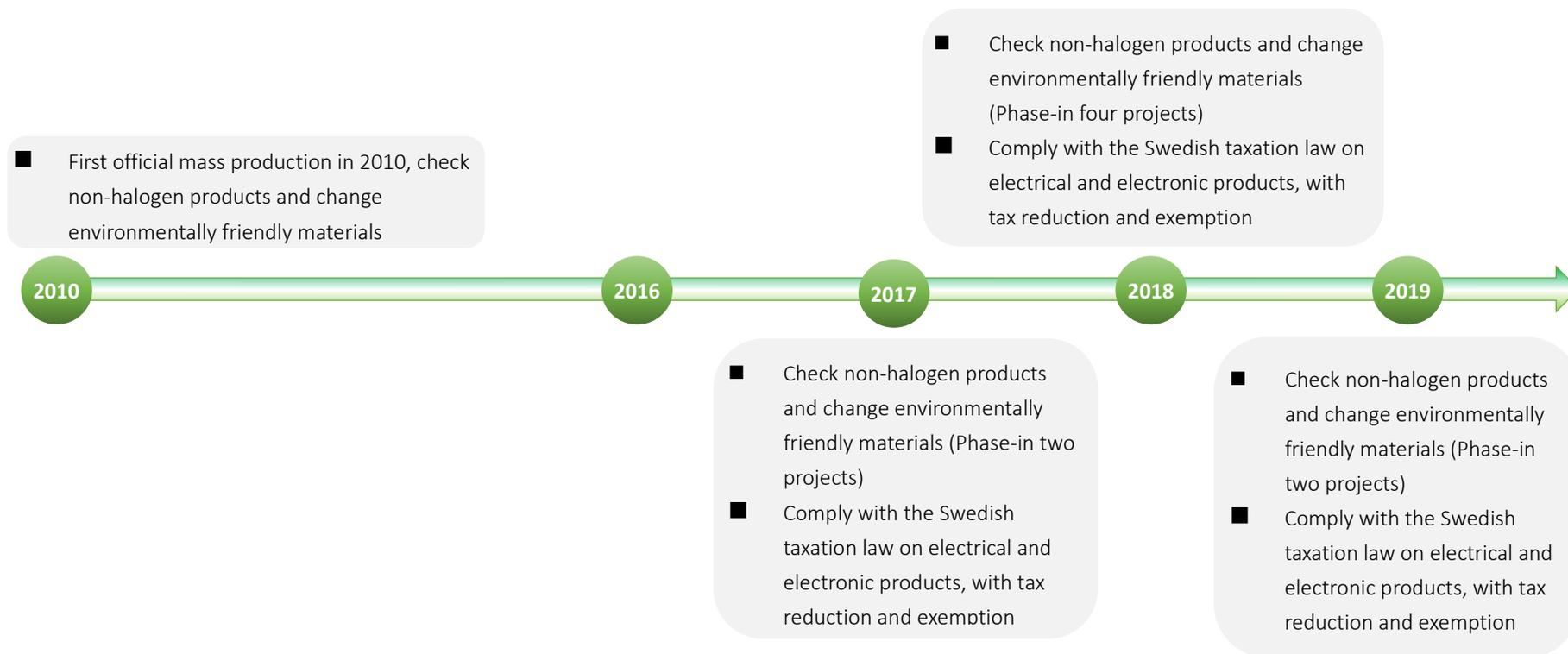
## Taiwan RoHS

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 (BSMI) 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.

## 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:

- Check non-halogen products and change environmentally friendly materials (Phase-in four projects)
- Comply with the Swedish taxation law on electrical and electronic products, with tax reduction and exemption

- First official mass production in 2010, check non-halogen products and change environmentally friendly materials

**2010**     **2016**     **2017**     **2018**     **2019**

- Check non-halogen products and change environmentally friendly materials (Phase-in two projects)
- Comply with the Swedish taxation law on electrical and electronic products, with tax reduction and exemption

- Check non-halogen products and change environmentally friendly materials (Phase-in two projects)
- Comply with the Swedish taxation law on electrical and electronic products, with tax reduction and exemption

## 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 sells Deutsche Telekom 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.



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### Product Carbon Footprint Verification Report

Verification Report No.: GM-pcfv ▮ ▮ ▮

▮ ▮ ▮ ▮ ▮
▮ ▮ ▮ ▮ ▮

The inventory of product life cycle greenhouse gas emissions of **Router** (Assessment model is ▮▮▮▮▮▮▮▮ 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: ▮▮▮▮
- System boundary of this product: **Cradle-to-Grave.**
- Product and function unit: **one set** of Router (include package)
- Model no. and carbon emissions: ▮▮▮▮ / **388.6525 Kg CO$_2$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** ▮▮ **V0801.docx (2018-08-01)**.
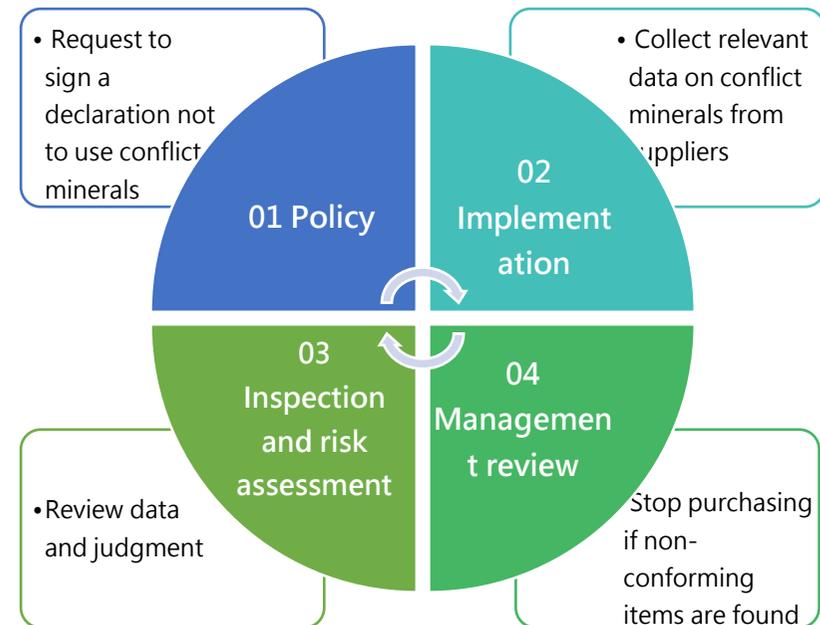- This report is valid from **2018/09/13** until **2019/06/07**

## Conflict Minerals Management

In accordance with the Conflict Minerals Reporting Template (CMRT), Arcadyan has started to manage non-conflict minerals parts since 2010, and issued to hundreds of suppliers of electronic and mechanical materials related to the electronics industry worldwide. Statement policy. The supplier conducts an information survey of conflict minerals on the materials sent, and makes a commitment to the materials. In 2019, the completion rate of non-conflict mineral surveys reached 99%, ensuring that the materials meet the requirements of conflict-free metals in the Democratic Republic of Congo.

| Mineral Category | Content |
|---|---|
| Au | Gold-containing metals (including derived metals), minerals, ores and concentrates |
| Sn | Stannum metals (including derived metals), minerals, ores and concentrates containing tin (cassiterite and other tin ore) |
| W | Tungsten metals (including derived metals), minerals, ores and concentrates containing tungsten (tungsten and other tungsten ore) |
| Ta | Tantalum metals (including derivative metals), minerals, ores and concentrates containing niobium or tantalum (coltanite, coltanite, tantalite, columbite, pyrochlore and other tantalum-niobium) |

If the result of the investigation is that the material uses conflict minerals in Congo (DRC) and its surroundings, the supplier shall be required to provide signature declaration, immediately stop purchasing and using conflict minerals in Congo (DRC) and its surroundings, and formulate corresponding improvements, Preventive measures to meet the requirements of the conflict-free mineral policy. On top of that, we have also included cobalt in our Non-Use of Conflict Minerals control list and

commenced our due diligence on the use of cobalt in 2019 in the hopes that our suppliers will work together with us and push for collaborating refiners to curb mining operations involving inhuman treatment.



• Request to sign a declaration not to use conflict minerals

**01 Policy**

**02 Implementation**
• Collect relevant data on conflict minerals from suppliers

**03 Inspection and risk assessment**
• Review data and judgment

**04 Management review**
Stop purchasing if non-conforming items are found

# Environmental Protection

## Environmental Protection 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 promises to prudently implement environmental safety and health work, and continue to improve, to establish a safe, hygienic and safe environment to achieve the objective of sustainable development. Therefore, in order to effectively promote and manage, Arcadyan has formulated the safety, health and environmental policy as follows, and 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.

## Energy Management

Energy consumption is the main source of greenhouse gas emissions of Arcadyan. The plant uses Key Performance Index (KPI) to track and review the achievement status of energy management on a monthly basis, and then proposes improvement measures and plans. Compared with 2012, the total energy consumption of direct and indirect greenhouse gases in 2019 has been reduced by 18.56%. The downward trend over the years is as follows:

### 2012~2019 Energy Consumption in CNC China Production Center
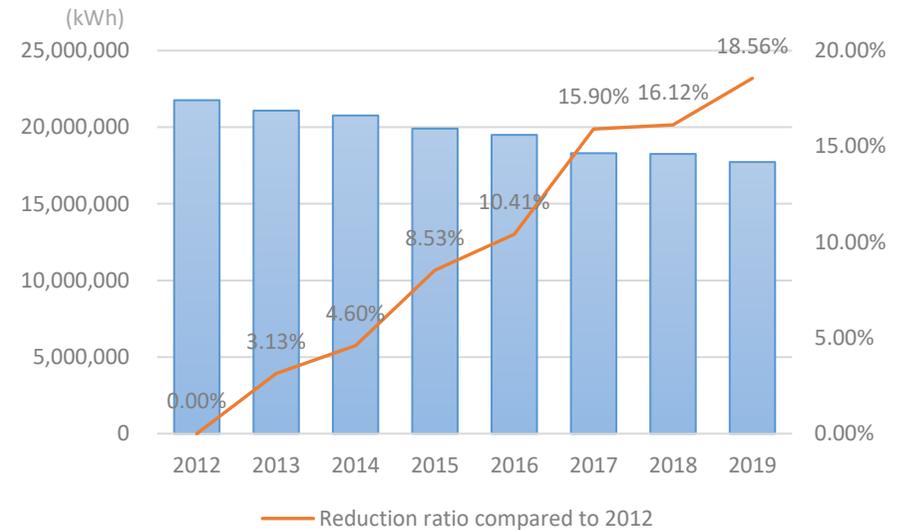
## Energy Saving

Promoting green offices to reduce carbon emissions is an important environmental mission of Arcadyan. The main green measures include the use of LED light-emitting diode lighting and the installation of water-cooled air conditioning systems to save energy. Effectively manage indirect emissions by improving the efficiency and reliability of equipment. Arcadyan introduces various environmental protection and energy-saving measures in its daily operations, such as regularly arranging to clean air-conditioning ventilation pipe filters, installing high-efficiency filters in the air-conditioning exchange system, and regularly monitoring energy consumption emissions:

| Type | Energy saving method |
|---|---|
| Lighting energy saving | After the employee leaves the office, all electronic lighting equipment is automatically turned off |
| | Install sensors in public places such as stairs (such as stairs) to reduce lighting energy consumption |
| | The parking lot is equipped with a light sensor to turn off the lighting when the daylight is sufficient |
| Air conditioning energy saving | Use curtains to reduce direct sunlight and the impact on indoor air temperature |
| | Install an Intelligent Building Energy Management System (iBEMS) central control and monitoring system to monitor and improve the performance coefficient of the entire system |
| | 95% of office buildings use high-efficiency LED light-emitting diode lights to reduce electricity consumption and carbon emissions |

The energy-saving improvement plan of the plant has been implemented since 2015. In addition to the regulation of lighting and air-conditioning equipment, the old equipment is also replaced with a frequency conversion system, and energy-saving slogans are posted to enhance the environmental protection awareness of colleagues.

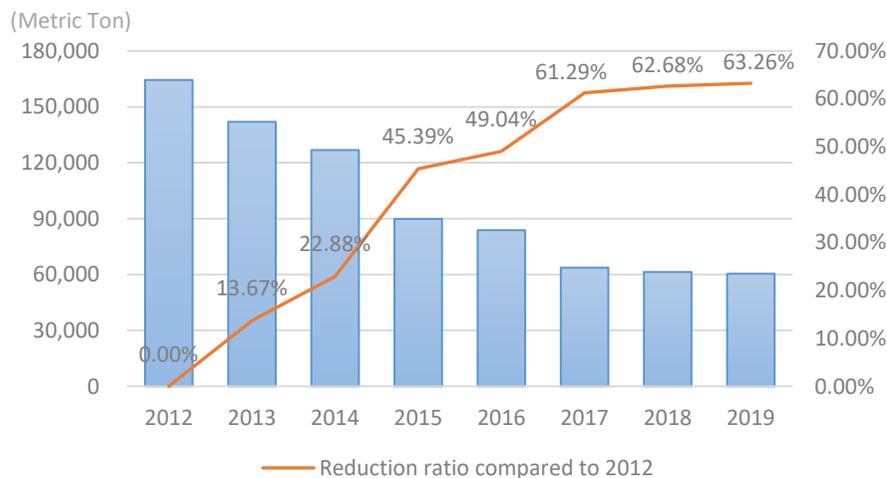| Implementation | Program |
|---|---|
| Energy saving in production line | New automated production line |
| Air conditioner replacement | ■ Replace the original high-energy consumption main engine with a new low-energy consumption (level 1) unit<br>■ Temperature setting is not lower than 26℃ in summer; not higher than 22℃ in winter |
| Lighting replacement | ■ Replace 28W energy-saving lamps with 12W LED lamps<br>■ Installation time control and sensing controller<br>■ Power saving reminders posted on switch facilities |
| Air compressor replacement | Replace the original high-energy-consuming equipment with a two-stage compression frequency conversion energy-saving unit |
| Humidifier replacement | Replace the original high-energy-consuming electrode humidifier with a low-energy-saving humidifier |
| Frequency conversion system | Replace old equipment with high efficiency equipment |
| Elevator equipment | Adopt intelligent automatic assignment to promote the use of more stairs and less elevators |

## Water Saving Management

Water resources are a necessary resource in modern society and the most precious element of life on the earth. In response to climate change, Arcadyan uses tap water sources for water in all plants and implements comprehensive water resources management to achieve the objective of water conservation. Wastewater discharge management is to plan treatment facilities based on the type of wastewater, such as kitchen wastewater grease separation, to reduce the impact on the environment and make wastewater discharge better than local discharge standards.

The production center is an assembly factory, and only domestic water is discharged during the process, and no factory wastewater. The discharged domestic wastewater is directly discharged to the local sewer system, and the destination of the discharge is the sewer management system, and the domestic wastewater discharge permit has been obtained and the third party has passed the test. No sewage will directly affect the water quality and land, and regular monitoring. The CNC China production center consumed 60,418 tons in 2019, and the average person uses about 2.03 tons of water per month.

The office building of Arcadyan headquarters is mainly used for research and development. Water resources are only used for general domestic water. There is no process water, and the generated sewage is included in the sewage sewer management system established by the government. The plant area fully implements water resources management, gradually uses water-saving facilities and promotes the living habits of employees, hoping to achieve the objective of water conservation. Most of the planning for saving water focuses on infrastructure improvement, such as the use of water-saving equipment, rainwater recycling systems, and automatic irrigation systems for plants.

**Average Monthly Water Consumption per Person in each Plant (person/metric ton)**



### 2012~2019 Water Consumption in CNC China Production Center



Reduction ratio compared to 2012

45
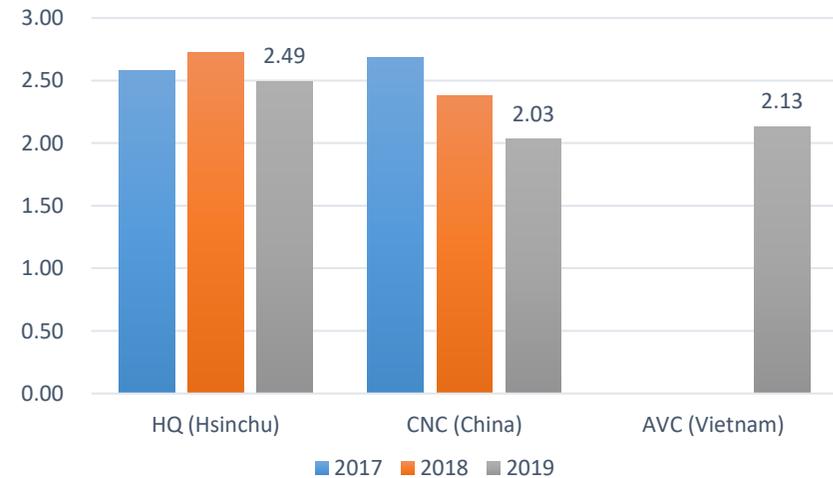
## Greenhouse Gas Management

Arcadyan always cares about global environmental changes, including related agreements actively promoted by various countries, such as Kyoto Protocol, United Nations Framework Convention on Climate Change (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 further convert various risks into green circular economy business opportunities, to improve the sustainability of business operations. The related process is shown in the following table:



Timeline:

**2009**
- Arcadyan HQ conducts organized greenhouse gas survey and adopts carbon reduction measures.
- Arcadyan HQ officially participated in International CDP*

**2012**
- CNC China production center conducts annual organizational survey

**2013**
- CNC (China) plan to organizational carbon reduction targets and adopt carbon reduction measures.

**2015**
- Arcadyan headquarter(HQ) conducted organizational Scope 3- Carbon emission inventory of new buildings in Taiwan headquarters.
- • Arcadyan HQ purchased carbon footprint software, participated in product carbon footprint green design consultation.

**2016**

**2017**
- Arcadyan HQ conducted product's carbon footprint survey- Electronic Home Gateway LCA

**2018**
- Arcadyan HQ carried out product Router carbon emission survey certification

**2019**
- AVC Vietnam production center conducts greenhouse gas survey

*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.

## Greenhouse Gas (GHG) Inventory

Arcadyan reviews the greenhouse gas management objectives annually. CNC China production center has set a greenhouse gas management target of 10% reduction of $CO_2$ emissions and 7% of electricity consumption by 2022 based on 2017. The annual greenhouse gas inventory is planned based on the previous year, with the goal of reducing energy use and improving energy efficiency, thereby reducing greenhouse gas emissions. CNC China production center uses the inventory of carbon release to evaluate the effectiveness of the organizational (Scope 1 and Scope 2) greenhouse gases and carbon footprint of products since 2012. In 2019, the inspection results of the AVC Vietnam Production Center were added, and the total greenhouse gas emissions from the global plant area was 18642.31 (Ton $CO_2$e).

| Region | Scope1 | Scope2 |
|---|---|---|
| Headquarters (Hsinchu) | 83.77 | 1428.48 |
| CNC China Production Center | 218.01 | 13882.73 |
| AVC Vietnam Production Center | 18.10 | 3011.22 |
| Subtotal（Ton CO₂e/ Scope） | 319.88 | 18322.43 |
| Total（Ton CO₂e） | | 18642.31 |

**GHG Inventory per Year**（Ton CO₂e）



CNC China production center



GHG Emissions at all plants worldwide

47
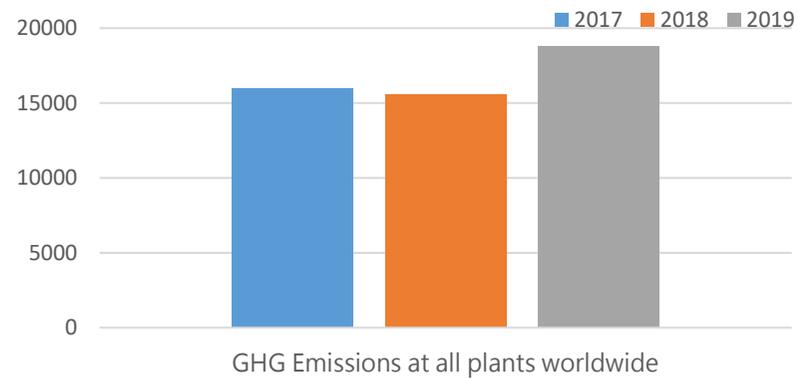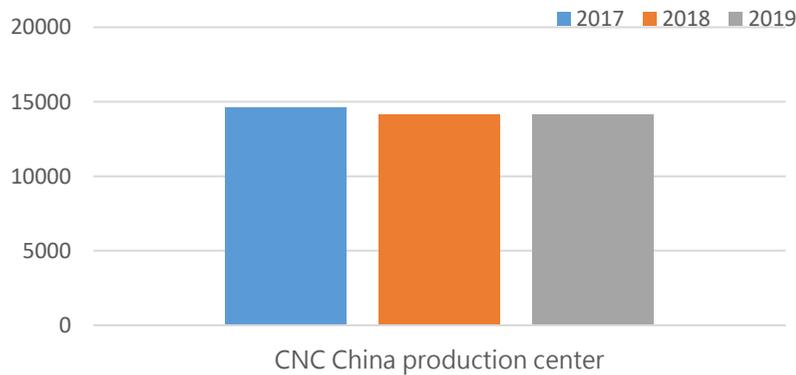
## Waste Management

In order to prevent pollution incidents, manage and process waste from the source, and then achieve the goal of waste reduction, the annual waste recovery rate reaches achieve 75.79% in 2019. The employees in the company have received professional environmental safety training. The following explains Hsinchu Implementation status of the headquarters and production centers:

**Arcadyan headquarters'** garbage includes general waste, recyclable waste and hazardous industrial waste; general waste is general combustible domestic waste, and resource recycling waste includes paper, general plastic, institutional plastic shell, metal, glass, etc. About waste removal and treatment, we set up a waste storage area that meets the regulations to conduct centralized classification, waste reduction, recycling, reuse, and incineration. The process is entrusted to legal institutions for treatment in accordance with regulations. In addition to the establishment of internal waste audit management procedure, it is also inspected by third-party TÜV Rheinland Taiwan Ltd. (TUV) audit.

(tons)

| Site | General Waste | Recyclable Waste | Hazardous Industrial waste | Recovery Rate |
|---|---|---|---|---|
| HQ (Hsinchu) | 27.7 | 4.93 | 1.122 | 14.61% |

**In China and Vietnam Production centers**, the waste centralized and classified, and then commissioned by qualified environmental protection manufacturers for recycling or incineration. The factory has only a small part of hazardous industrial waste, mainly from the cleaning agent used for cleaning steel plates/reflow furnaces, waste alcohol used for wiping cleaning, and waste liquid generated from cleaning fixtures, waste lamps and PCB board edges, etc. All are handed over to the local qualified recycling and disposal manufacturer in the factory for legal disposal.

The exhaust gas emission source is the soldering process, that discharged from the exhaust pipe through the adsorption of activated carbon filters. Air pollutants are monitored twice a year. The maintenance department conducts monthly inspections and maintenance of the exhaust equipment, ensure that the air pollution monitoring data meet the environmental requirements of the local government. As of 2019, there have been no major pollutants such as oil pollution, fuel leaks, chemical leakage,

etc., that have affected the soil or water surface. There is also no import or export of hazardous waste and any violation of environmental protection regulations.

(tons)

| Overseas Sites | Industrial Waste | Recyclable Waste | Hazardous Industrial waste | Recovery Rate |
|---|---|---|---|---|
| CNC (China) | 17.168 | 321.253 | 89.859 | 75.01% |
| AVC (Vietnam)* | 15.659 | 166.827 | 5.977 | 88.52% |

*Note: AVC (Vietnam) started production in the 2019 Q3, Q3~Q4 data disclosed in this report.

### Percentage of Various Types of Waste in Overseas Production Centers
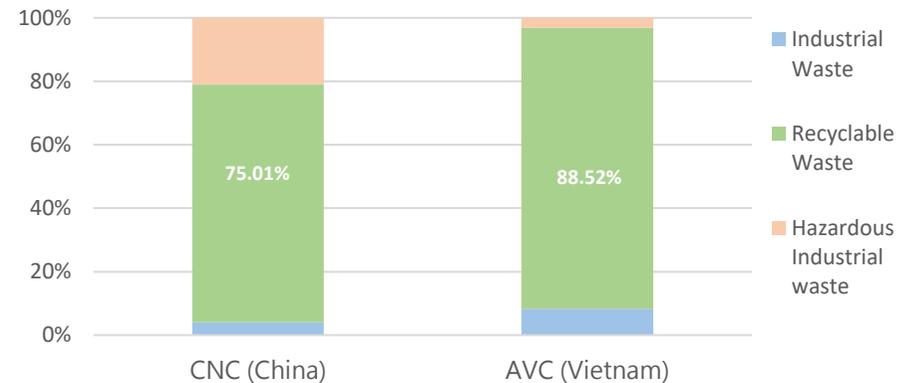
## Waste Reduction

Arcadyan understands the importance of waste separation and recycling use, we set up recycling bins inside to encourage separation and recycling, and proposes reduction plans. The number of garbage recycling bins in the factory area has been increased from 8 points to 18 points, increasing the employees' willingness to environment protect and centralized recycling. Continue to implement waste classification and recycling, reduce resource consumption, energy conservation and environmental protection, and regularly conduct environmental protection, energy conservation and other employee training to strengthen employees' awareness of environmental protection.

1. Do not use disposable tableware
2. Develop an online sign-off system to reduce paper usage
3. Import automated processes to improve accuracy
4. The improvement plan to reduce the waste materials reported due to manual negligence, and fully implement it

### Employee Environmental Training



**TUV Rheinland Taiwan Waste Discharge Inspection Report**



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**Waste Discharge Verification Report**

The inventory of waste discharge of Arcadyan Technology Corporation in year 2019, include:
- Headquarter Address: No.8, Sec.2, Guangfu Rd., Hsinchu City 30071, Taiwan, R.O.C.

Following activities were conducted during verification:
- Document review, interview, site visit and recalculation

Based on the information we have received and evaluated (Order No.: 238487871), it was verified by TÜV Rheinland Taiwan that:
- Data and information are from historical in nature
- The total weight of waste in year 2019 is 33.752 tons, where as the:
  - General waste is 27.700 tons (82.07%)
  - Recyclable waste is 4.930 tons (14.61%)
  - Hazardous industrial waste is 1.122 tons (3.32%)

Date of Issue 2020/07/17
TÜV Rheinland Taiwan Ltd.
11F, No. 758, Sec. 4, Bade Rd.,
Taipei 105, Taiwan, R.O.C.

Vito C. C. Lin
Lead Verifier
2020/07/17

## Disposal and Recycling

With the progress of the times, the life cycle of consumer electronic products is getting shorter. While innovations are stimulating consumption, the increasing number of waste electronic products has gradually become a burden on the environment. In order to promote the use of waste plastics and effectively implement Post-Consumer Recycled (PCR). Arcadyan recycles the discarded institutional plastic housings into 5-6 tons of ABS and ABS+PC for reuse, about 28 tons of carbon dioxide emissions per year.
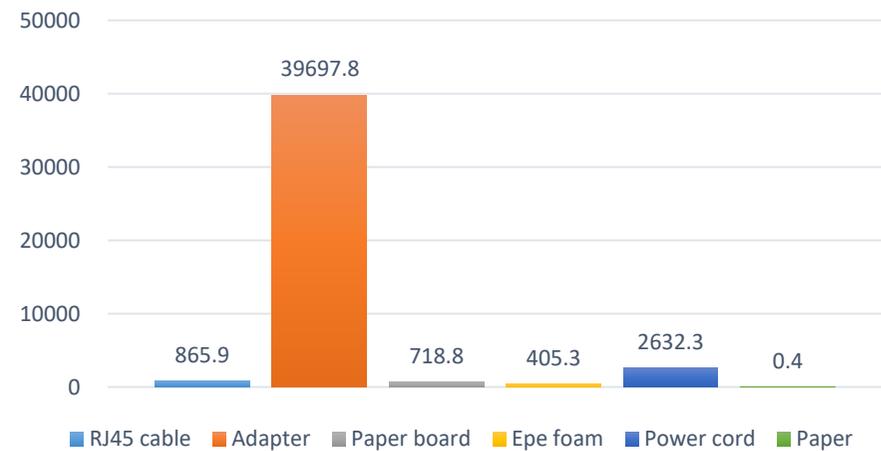
Based on the design experience and the data with the recycling industry, Arcadyan calculates the product recyclability, and uses the following 5 aspects to evaluate the recycling reuse amount until the end of the product life. It can be repeated from 2018 to 2019 the total recovered carbon savings used is 4321.179 kgCO2e:

1. Material type
2. Product design assembly/disassembly method
3. Recycling process in accordance with the WEEE directive
4. Disassembly method according to WEEE directive
5. Is the assembly of parts easy to separate

## Refurbished to use RMA Accessories

In the process of return merchandise authorization(RMA), Arcadyan implements the reuse of packaging materials and accessories, and refurbishes used products to new condition by reassembly or repair, which will extend the life cycle of product and accessories.

### 2018~2019 RMA total Recycled Materials Statistics（KgCO$_2$e）

Bar chart showing values:
- RJ45 cable: 865.9
- Adapter: 39697.8
- Paper board: 718.8
- Epe foam: 405.3
- Power cord: 2632.3
- Paper: 0.4

Contents

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Green Products

Environmental Protection

Happy Workplace

Society Care

# Happy Workplace

## Employee Profile

As of the end of December 2019, the total number of employees in our R&D HQ in Taiwan (including expatriates), plants in China and Vietnam came to 2,909 (650 in Taiwan, 1,190 in China and 1,069 in Vietnam. Male employees make up 51.14% of Arcadyan's total employees around the world, with the remaining 48.86% being female employees.

There are a total of 650 employees in Arcadyan Hsinchu headquarters, Taipei office and overseas staff. R&D personnel accounted for more than 50% of the company's employees. Male and female of Arcadyan employees accounted for 72.02% and 27.98%; management positions males accounted for 79.05%, and females accounted for 20.95%. The discrepancy is attributed to job nature rather than gender discrimination.

The total number of employees in CNC China production center is 1,190, of which 55.55% are males and 44.45% are females.

The total number of employees in the AVC Vietnam production center is 1,069, of which 33.12% are males and 66.88% are females.
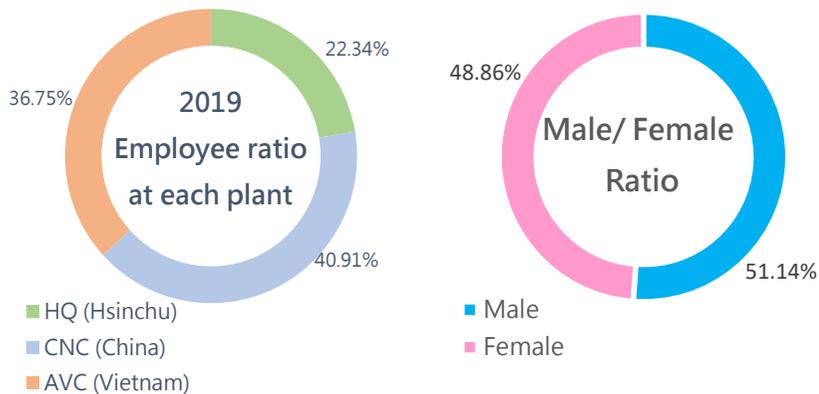
## Hiring of Local Managers

Not only do we station Taiwanese managers at our plants in China and Vietnam to share and impart their management experience, we have also dedicated ourselves to the nurturing of local talents as we strive to exert a positive influence on the local community. More than 80% of our managers in China are hired locally; and as high as 64.71% of managers in Vietnam have been hired locally.

| | Managers | Local Managers* | Percent |
|---|---|---|---|
| Headquarters (Hsinchu) | 148 | 127 | 85.81% |
| CNC China production center | 78 | 65 | 83.33% |
| AVC Vietnam production center | 17 | 11 | 64.71% |

*Note: Local managers refer to local personnel with positions above section chief



**2019 Employee ratio at each plant**

- HQ (Hsinchu) 22.34%
- CNC (China) 40.91%
- AVC (Vietnam) 36.75%

**Male/ Female Ratio**

- Male 51.14%
- Female 48.86%

## Ratio by Age

| | Male | | | | | | Female | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Under 30 years old (inclusive) | | 31-50 years old | | above 51 years old (inclusive) | | Under 30 years old (inclusive) | | 31-50 years old | | above 51 years old (inclusive) | |
| Headquarters (Hsinchu) | 84 | 2.89% | 335 | 11.52% | 62 | 2.13% | 26 | 0.89% | 126 | 4.33% | 17 | 0.58% |
| CNC China production center | 349 | 12.00% | 306 | 10.52% | 6 | 0.21% | 210 | 7.22% | 305 | 10.48% | 14 | 0.48% |
| AVC Vietnam production center | 269 | 9.25% | 85 | 2.92% | 0 | 0.00% | 416 | 14.30% | 299 | 10.28% | 0 | 0.00% |

## Structure and Distribution

| | Male | | | | | | Female | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Direct employees | Indirect Employees | | Temporary | Total for the gender | Gender ratio of local employees | Direct employees | Indirect Employees | | Temporary | Total for the gender | Gender ratio of local employees |
| | | Manager* | Staff | | | | | Manager* | Staff | | | |
| Headquarters (Hsinchu) | _ | 117 | 364 | 3 | 484 | 72.02% | _ | 31 | 138 | 19 | 188 | 27.98% |
| CNC China production center | 384 | 43 | 234 | 0 | 661 | 55.55% | 408 | 22 | 99 | 0 | 529 | 44.45% |
| AVC Vietnam production center | 261 | 5 | 88 | 0 | 354 | 33.12% | 656 | 6 | 53 | 0 | 715 | 66.88% |
| Total | 645 | 165 | 686 | 3 | 1499 | 51.14% | 1,064 | 59 | 290 | 19 | 1432 | 48.86% |

*Note：Managers refer to personnel with positions above section chief

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## Recruitment and Turnover

Arcadyan is the first professional and intelligent network terminal equipment company to integrate broadband, multimedia, wireless and internet communication protocols. The excellent research and development capability is a competitive advantage. To ensure that we can maintain our competitive advantage in the environment of rapid technological and specification changes, we formulate the business policy and development strategy for the next year at the end of each year, and formulates the annual employment plan based on our strategy. HR department publicly releases job vacancy information, and the recruitment process follows local government regulations and select the suitable employee by a fair and equitable way.

### New Recruitment Rate

| | Male | | | | | | Female | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Under 30 years old (inclusive) | | 31-50 years old | | above 51 years old (inclusive) | | Under 30 years old (inclusive) | | 31-50 years old | | above 51 years old (inclusive) | |
| Headquarters (Hsinchu) | 41 | 6.31% | 53 | 8.15% | 2 | 0.31% | 15 | 2.31% | 9 | 1.38% | 0 | 0.00% |
| CNC China production center | 491 | 41.26% | 112 | 9.41% | 0 | 0.00% | 297 | 24.96% | 156 | 13.11% | 0 | 0.00% |
| AVC Vietnam production center | 360 | 33.68% | 64 | 5.99% | 0 | 0.00% | 753 | 70.44% | 316 | 29.56% | 0 | 0.00% |

### Employee Turnover Rate

| | Male | | | | | | Female | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Under 30 years old (inclusive) | | 31-50 years old | | above 51 years old (inclusive) | | Under 30 years old (inclusive) | | 31-50 years old | | above 51 years old (inclusive) | |
| Headquarters (Hsinchu) | 11 | 1.69% | 23 | 3.54% | 1 | 0.15% | 4 | 0.62% | 17 | 2.62% | 1 | 0.15% |
| CNC China production center | 378 | 31.76% | 82 | 6.89% | 0 | 0.00% | 208 | 17.48% | 100 | 8.40% | 0 | 0.00% |
| AVC Vietnam production center | 251 | 23.48% | 28 | 2.62% | 0 | 0.00% | 681 | 63.70% | 192 | 17.96% | 0 | 0.00% |

## Human Rights and Communications

Arcadyan headquarters and overseas production centers recruit employees solely based on personal character, ability, and match with the duties assigned. Under no circumstances would the company allow different treatment for race, ethnicity, social status, lineage, religion, disability, gender, sexual preference, family attachment, marital status, political association, age or any other forms of discrimination.

Overseas production centers have established procedures such as 『Use Child Labor and Minors Labor Control Procedure』, 『Freedom of association and collective bargain rights control procedure』, 『Prohibition of discrimination and punitive measures management procedure』, 『Banned Forced Labor control Procedure』, etc. Ensure that employees do not work or serve under any retaliation or threat, or as debt-paying work or services. Employees have the right to freely choose to resign, and they can resign in accordance with local laws and regulations to notify the company and complete all resignation procedures. Employees who are threatened, abused, exploited, or compulsive in the workplace can anonymously complain about any illegality through the complaint mailbox. If employees are subjected to sexual harassment behavior, including posture, language, and physical contact, Arcadyan sets up a sexual harassment complaint mailbox and special line on the internal website for complaints, and ensures that employee complaints are properly handled.

Arcadyan has a diversified and smooth negotiation channel, which creates a positive labor-employment relationship, accepts employees' suggestions and actively handles them. Regarding the protection of employees' rights, Arcadyan not only follows the various policies that established by laws and regulations, but also takes into consideration the rights of employees. In 2019, there were no violations of child labor or minors labor at the headquarters and overseas production centers, and there were no cases related to penalties under the Labor Law. The following describes various negotiation channels to maintain a good labor-employment relationship:

| | |
|---|---|
| Labor-management meeting | Provide channels for the expression of opinions and communication between employers and employees |
| BBS Intranet Bulletin | Through our intranet bulletin system, we are able to post relevant information such as announcements, activities, promotions, merits/disciplinary actions and so forth in real-time so that employees can stay informed, take part in relevant events and provide their feedback. |
| HR mailbox | Provide external contacts and employee questions and exchange of opinions |

## Discrimination Incidents and Improvement Actions

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. In 2019, there were no complaints of discrimination or harassment in Arcadyan.

## Employment of People with Disabilities

In response to the government's policy of promoting employment of people with disabilities, Arcadyan has hired 5 people with disabilities at the Hsinchu headquarters in 2019, including 2 mild, 2 moderate and 1 severe. In addition to hiring the disabled, it also cooperates with the competent authority to match the disabled to provide employment opportunities for visually impaired masseurs, in compliance with the regulations that the number of people who should be employed by private institutions.

## Labor-management negotiation meeting

Arcadyan takes care of employees and attaches great importance to employee welfare. We have labor-management committee, the ratio of labor-management representatives meets the requirements of local laws and regulations. The employee representatives are elected by employees for a term of four years. Labor-management meetings are held regularly to collect opinions from employees, communicate and improve both parties' problem. In addition, the exchange of opinions between labor and management can also be conducted through channels such as Bulletin Board System and e-mails to maintain a good relationship. Arcadyan's labor-management relationship has always been harmonious, and there has been no loss due to labor disputes.





| Month | Plant | Description of Issue | No. of labor representatives | No. of management representatives |
|---|---|---|---|---|
| 3, 6, 9, 12 | HQ (Hsinchu) | Business trips, parking facilities improvement, access control, clubs and event spaces, labor-management conference re-election | 5 | 5 |
| 11 | CNC (China) | Policy discussions on staff discussions, overtime, leave, working hours, fire drills, entertainment activities, etc. | 15 | 5 |

## Employee Rights

### Wages and Bonuses

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 CNC China Production center 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.

Arcadyan maintains healthy and smooth labor-management communication channel and harmonious labor-management relationship, through labor-management meetings to review resignation, retirement and organizational change system processes to avoid labor disputes, and promises to inform colleagues at least four weeks in advance of major changes in operations.

### Retirement System

Arcadyan's pension system has been established in accordance with relevant regulations and the Company's policies, employee service years are calculated in accordance with the provisions of the Labor Standards Law, and the maximum is limited to 45 units; the calculation and payment of employee pensions are handled in accordance with relevant regulations. The Labor Pension Regulations came into effect on July 1, 2005, and employees are free to choose between the old and new systems. The company will withdraw 6% of employees' monthly wages to the individual pension account of the Labor Insurance Bureau on a monthly basis in accordance with relevant regulations.

### Childbirth Incentive and Unpaid Parental Leave

In response to the government's birth incentive policy and to drive up birth rate in Taiwan, Arcadyan has been offering a subsidy of NT$66,000 for every child that employees of the Hsinchu Headquarters have given birth to since 2011. This policy has been in place from 2011 to 2019. Arcadyan has paid out NT$16 million in subsidies for a total of 240 newborn babies between 2011 and 2018. In addition, we have signed a contract with relevant nursery/daycare centers to provide discounted prices to lighten the burden on employees.

### Unpaid parental leave

The childbirth plan for our employees in Taiwan has been created by the "Act of Gender Equality in Employment" and the "Measures for Implementing Unpaid Parental Leave for Raising Children." Employees who complete six months of service are entitled to apply for unpaid parental leave for every child under the age of three. The maximum duration of unpaid parental leave cannot exceed 2 years. At the end of the parental leave, we will reinstate the employee back to their original unit or related units and provide the said employees with courses on the required skills to re-acclimatize and prepare them for the job. Although no relevant regulations on unpaid parental leave exist at our overseas plants, our employees may still apply for parental leave.

| 2018 Employees on unpaid parental leave-HQ (Hsinchu) | Male | Female |
|---|---|---|
| No. of employees qualified to apply for unpaid parental leave in 2019 | 48 | 15 |
| No. of employees who actually applied for unpaid parental leave in 2019 | 2 | 6 |
| No. of employees expected to be reinstated in 2019 (A) | 0 | 2 |
| No. of employees actually reinstated in 2019 (B) | 0 | 2 |
| No. of employees having worked for 1 year after their reinstatement in 2018 (C) | 1 | 1 |
| No. of employees actually reinstated after their unpaid parental leave in 2018 (D) | 1 | 1 |
| Reinstatement rate for 2019 (E) = (B)/(A)*100% | - | 100% |
| Retention rate for 2019 (F) = (C)/(D)*100% | 100% | 100% |

## Employee Welfare

Arcadyan established the Employee Welfare Committee in accordance with the Labor Standards Act and government decree. In addition to providing various subsidies for employees' marriage, funeral, illness and childbirth, it also regularly organizes various clubs and tourism activities, birthdays, evening parties, etc. to promote the physical and mental health of employees adjust and improve employee interaction. The above welfare measures have been well received by employees over the years.

## Arcadyan Club Activities

| Balls | Billiard club, badminton club, basketball club, softball club |
|---|---|
| Fitness | Yoga club, dance club, Qigong club |
| Arts | Painting Club, Hand Football Club, Patchwork Club |

## Arcadyan Welfare Committee

Arcadyan established the "Employee Welfare Committee" to allocate welfare funds in accordance with the law, regularly organize welfare committee meetings and handle employee welfare activities to support the diversified development of club activities. Relevant benefits include birthday gifts, annual gifts, employee health promotion and leisure activities, family days, domestic and foreign travel, wedding and funeral subsidies, hospitalization allowances for employees and family members, year-end banquet and lucky draw event, health check, etc., in addition to insurance for employees In addition to the insurance stipulated by labor laws, an employee group insurance (including life insurance, accident insurance, cancer insurance, and medical insurance) is also planned to provide complete personal protection.

## Diversified Welfare Measures

Employees are Arcadyan's greatest asset. We are committed to providing comprehensive employee welfare measures and building a friendly workplace to promote the best balance between employees' lives and work:

| |
|---|
| Employees have Annual Leave under the Labor Standards Act, and 5 days of paid sick leave are provided to employees each year superior to the Labor Standards Act. |
| Organize domestic and foreign employee tours, provide travel subsidies, and enhance emotional exchanges between colleagues and parent-child harmony |
| Held the year-end banquet to appreciate employee |
| Free company uniform (summer/Polo shirt, winter/coat) |
| Childbirth gift of NT$66,000 per child |
| Provide employees with free parking spaces for cars and scooter to meet their parking needs |
| Set up staff restaurants and coffee bars to cater for colleagues' dietary needs |
| Set up a comfortable activity center and various equipment for employees to stretch their muscles and bones and exercise |
| Set up a nursing room for female employees to breastfeed |
| Attach importance to the resting environment and create elegant public spaces to allow employees to relax during breaks |
| Cooperate with non-profit organizations to held regular visually impaired massage activities |
| Book various gift voucher |

## Talent Cultivation and Development

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 |
|---|---|
| **Professional technical courses** | 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. |
| **Leadership management course** | Conduct leadership management courses, develop leadership and expand vision. Introduce new and old generation exchange sharing courses to take care of new employees. |
| **Co-communication course** | 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. |

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 250 professional-type courses have been held and more than 320 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:



59
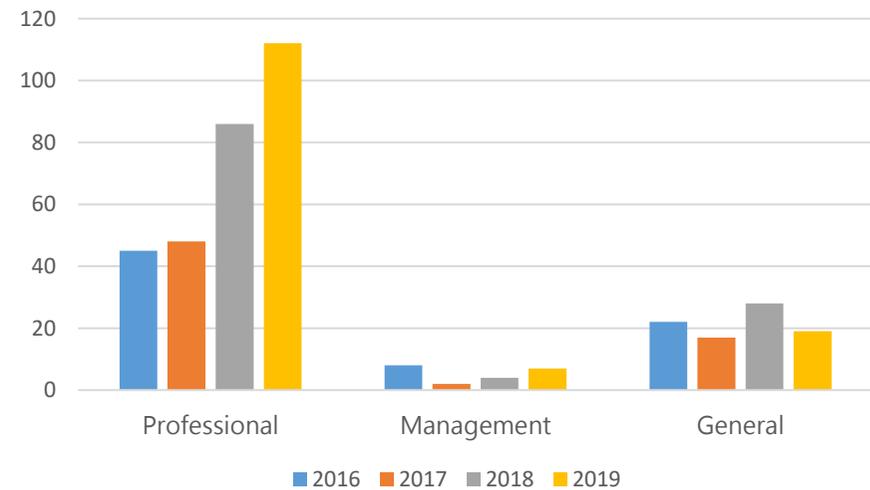
## Arcadyan Content Sharing System

In 2019, a total of 1,865 people participated in the courses at the Hsinchu headquarters. The courses were organized through internal and external training courses. The total training hours exceeded 5,400 hours. At the same time, through the introduction of new IT technology and the professional experience sharing of many internal lecturers, the company has successfully established a knowledge sharing platform (Arcadyan Content Sharing System, CSS), where employees can view teaching materials, course audio and video files within the company's domain, and share departmental professional information. Using CSS to unify the company's resources not only makes it easy for employees to search for the information they need, but also encourages the department to establish knowledge management and encourage employees to learn at any time.

### 2019 Education and Training

| | | Hsinchu Headquarters | | | CNC China Production Center | | | AVC Vietnam production center | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Persons | Hours of Training | Average Training Hours | Persons | Hours of Training | Average Training Hours | Persons | Hours of Training | Average Training Hours |
| Direct employees | Male | - | - | - | 384 | 7,908 | 20.59 | 261 | 1,856 | 7.11 |
| | Female | - | - | - | 408 | 7,656 | 18.76 | 656 | 5,928 | 9.04 |
| Manager | Male | 117 | 1,701.33 | 14.54 | 43 | 60 | 1.40 | 5 | 40 | 8.00 |
| | Female | 31 | 469.33 | 15.14 | 22 | 60 | 2.73 | 6 | 48 | 8.00 |
| Staff | Male | 364 | 2,322.67 | 6.38 | 234 | 1,056 | 4.51 | 88 | 640 | 7.27 |
| | Female | 138 | 936.33 | 6.79 | 99 | 528 | 5.33 | 53 | 456 | 8.60 |

## Performance Appraisal System

Arcadyan provides electronic performance appraisal system for employee and supervisor to evaluate the past half-year work assignment results and effectiveness, and assist in setting work and project targets for the next half year, ensure that personal work goals are consistent with those of the department and company. The proportion of participation in regular performance appraisal is over 90% in 2019 (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). Overseas production centers also perform performance evaluations at least twice a year. 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.

### Performance Evaluation Statistics in Hsinchu Headquarters

| | Direct employees | | Indirect employees | | | |
|---|---|---|---|---|---|---|
| | | | Manager | | Staff | |
| | Male | Female | Male | Female | Male | Female |
| **Persons of Appraisal** | - | - | 234 | 62 | 694 | 278 |
| **Persons of Performance Evaluation** | - | - | 222 | 60 | 638 | 265 |
| **Proportion (%)** | - | - | 94.87% | 96.77% | 91.93% | 95.32% |

## Occupational Health and Safety

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.

To protect the occupational safety of employees at work, we have not only established the Environmental Safety and Health Policy base on OHSAS 18001, but also established relevant procedures and documents of the "Occupational Safety and Health Management" at each plant site in order to rigorously control details of each workplace. At the beginning of design all facilities in Arcadyan office environment, the protection of employee safety is the first consideration to ensure that employees can get the complete 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 to be guarded 24 hours a day to maintain a safe office environment. In addition, various fire-fighting equipment (such as fire alarms or fire extinguishers, etc.) are regularly maintained according to its prescribed time and kept in the best state.

### Occupational Hazard Identification and Risk Assessment

Arcadyan emphasizes the employees' working environment safety and health. The hazard identification and risk assessment scope include all health and safety hazards expected to affect the plant's internal and external environments, including routine and non-routine activities, all personnel (including contractors and visitors) entering the plant site and outsourced contractors at the workplace. In addition, the managerial representative is responsible for review the assessment task force and supervise the hazard identification, risk assessment operation approval, and after verification, the promotion taskforce and the supervisor then perform works for details of the risk identification.

About the risk assessment, the promotion taskforce conducts hazard identification annually or when it is considered necessary according to the "Safety and Health Hazard Identification Form", in order to be used as a basis for establishing policies and hazards handling. The management review meeting is convened periodically, and the promotion taskforce conducts discussion, revision and approval on the newly identified risks. For risks already identified and content requiring revision, revision is

further made. The risk level standard and control are revised according to corporate needs annually. For other overseas plant sites, environmental safety risk assessment and various management procedures are implemented according to the local laws and various requirements including OHSAS18001 certification. Through the above risk assessment process, relevant risks are listed, and high-risk factors are rigorously controlled, such that we have achieved the vision and goal of zero occupational disasters for corporate.

### Environment Inspection

To provide a safe workplace and community for our staff and residents, each plant is staffed with a unit responsible for routine inspection and maintenance, as well as identifying the hazardous factors in the work environment. For example, traffic and electricity safety measures, security measures, drinking water tests, emergency lighting, smoke detectors, fire hydrant equipment, lightning protection inspection. Arcadyan headquarters conducts lighting operation environment and carbon dioxide (CO2) operation environment measurement twice a year. The results of implementation in 2019 are in compliance with regulatory standards.

### Occupational Safety Committee

Arcadyan's plants are established with the Occupational Safety Committee, and meetings are convened according to the occupational safety and health management system (OHSAS 18001) to discuss occupational safety-related matters, in order to facilitate the communications and consultations among internal departments and all levels of the company as well as among external related units and groups, as well as to ensure the working environmental safety of employees. We explicitly specify the responsibilities of the managerial representatives and participating members according to the management of the "Quality, Environment Health/ Safety and Eco Design Manual", and through the procedures of "Consultation and Communication Management Procedures". Employee representatives shall participate in the development and review of safety and health policies and relevant procedures. The 2019 Occupational Safety Committee convened 4 quarterly meetings to track various safety and health implementation goals and plans and conduct effectiveness reviews.

## First Aider Training

Since 2015, promote first aid skills and training courses, through training to apply relevant first aid methods to daily life, and improve the use of CPR and Automated External Defibrillator (AED) by colleagues, thereby achieving self-help. A total of 6 AEDs have been set up on each floor of the headquarters building of Arcadyan. In order to promote the use of AED and first aid skills, it is held every three years. The first aid training course is divided into two parts: classroom teaching and practical operation. Through the teaching of professional lecturers, employees benefit a lot from training courses.





## Occupational Safety Educational Training

Arcadyan implements employee safety educational training courses to allow employees to understand the safety of the plant site and possible hazardous risks. And according to the" Emergency Preparedness and Response Procedures" assist employees to understand the disaster level and response measures. We further cooperate with the instructions of the regional fire squad to implement fire prevention training, and periodic fire prevention knowledge promotion for employees are executed annually. The content of the training courses includes rich and correct handling response methods for fire, wind disaster, flood, earthquake, etc. To help employees build up awareness towards preventing disasters as part of daily life,

The Hsinchu headquarters held a total of four training courses for new recruits in 2019, which included introduction to environmental safety and health, analysis and handling of public injury accidents, emergency response notification, static protection training courses, fire education training and drills... etc. The completion rate of the training was 100%. In addition, the company complies with legal requirements, with more than 50 workers, and at least one first-aid person per shift. The company sets up 13 first-aid personnel according to the ratio and arranges three-hour on-the-job education and training courses every three years.

Fire drills in overseas production centers are held in accordance with the frequency and hours specified by local regulations. The CNC Production Center carried out a total of 64 sessions of personnel for safety and health education and training in 2019, and conducted escape drills every quarter.





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## Health Care

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, on-site doctor and contracted medical institution. Arcadyan will work hard in the three major directions of "health education", "health promotion" and "health management" to ensure the health of each employee.

| | |
|---|---|
| **Health education** | ● New recruit health training<br>● First aid training<br>● Health and epidemic prevention |
| **Health promotion** | ● Comfortable nursing room.  ●Pap smear<br>● Special health lecture.  ●Visually impaired massage<br>● Colorectal cancer screening.  ●Weight loss activity<br>● Breast ultrasound examination  ●Aerobic exercise |
| **Health management** | ● New recruit health examination<br>● Health examination abnormality management / tracking<br>● On job employee health examination<br>● Serving meal staff health examination |

## 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.



## 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", on-site doctor selects the employees who need care and tracking. for the. And arranged for D and E-level employees in annual health checkup list, so that employees have the best Healthy body. In addition to taking care of employees with more serious health classifications, Arcadyan also based on the "Prevention of Health Disorders Resulting from Abnormal Workload ", "Maternal Health Protection Plan", "Human Harm Prevention Plan" and " Prevention of Illegal Infringement when Performing Duties". The four major guidelines for labor health protection, including the prevention of violations, set relevant management standards to create a friendly workplace and reduce the risk of occupational hazards.

The CNC China Production Center conducts regular health checks for employees with special duties (PCB side cutting, soldering operations, chemical management, etc.) to avoid the risk of occupational injuries in the working environment.

## Health Management Classification

| | |
|---|---|
| A | No abnormalities, regular health check and follow-up every year. |
| B | Minor abnormalities, independent health management by colleagues, regular follow-up physical examination every year. |
| C | If the result of the health check is abnormal, the follow-up of the re-examination must be completed within 6 months, and the doctor or nurse practitioner will evaluate and suggest to reduce the risk of disease. |
| D | The result of the health check is obviously abnormal, and it needs to be rechecked in the relevant department within one month and listed as a personal management for continuous tracking. |
| E | The results of the health examination are severely abnormal, and are listed as individual management objects, and need to go to the medical institution for reexamination and follow-up treatment. |

## Arcadyan Health Promotion Activities

**Annual Health Check-up**



**Visually Impaired Massage Activities**



**Eating Lightly**



**Pap Smear Test**

## Occupational Disaster Work Injury

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.

## Occupational Disaster Work Injury Data

| | Hsinchu Headquarters | | CNC China Production Center | | AVC Vietnam production center | |
|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female |
| Disabling Injury Frequency Rate（FR）[1] | 0.0000 | 0.0000 | 0.3022 | 0.3398 | 0.0000 | 0.0000 |
| Disabling Injury Severity Rate（SR）[2] | 0.0000 | 0.0000 | 3.0220 | 0.6795 | 0.0000 | 0.0000 |
| Disabling injury Index [3] | 0.0000 | 0.0000 | 0.0009 | 0.0002 | 0.0000 | 0.0000 |
| Occupational Disease Rate（ODR）[4] | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Loss day Rate（LDR）[5] | 0.0000 | 0.0000 | 0.6044 | 0.1359 | 0.0000 | 0.0000 |
| Absence Rate（AR）[6] | 0.70% | 0.30% | 3.54% | 3.72% | 3.35% | 3.51% |
| Death due to official duties* | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Calculation Equation:

1. Disabling Injury Frequency Rate = Number of employees with disability injuries *1,000,000/ Total number of working hours

2. Disabling Injury Severity Rate = Days of employees with disability injuries *1,000,000/ Total number of working hours

3. Disabling injury Index = Disabling Injury Frequency Rate * Disabling Injury Severity Rate /1,000

4. Occupational Disease Rate =（Total number of employees with occupational diseases / Total number of working hours）*200,000

5. Loss Day Rate =（Number of loss days due to disability injuries/ Total number of working hours）*200,000

6. Absentee Rate = Number of absent days of employees / Total number of calendar working days*100%

7. On number of deaths due to official duties: Excluding commute traffic accidents

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Appendix ✉
Society Care

# Society Care and Public Welfare

## 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.

### 2019 Lunar New Year Greetings

- Food donation to Taiwan People's Food Bank Association





### 2019 Annual results

- Total Arcadyan company donations **NT$1,029,166**

- Total employee donations **NT$668,078**

- **578 people** participated in charitable event

- **2,293 persons** receive the donation

### 2019 New Year Market Activities in Cooperation with Public Interest Groups

2019 Charity Activities Project

| Name | | Activity Detail |
|---|---|---|
| **Long-term concern** | 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. | |
| **A loving, double charity** | In order to make Arcadyan and employees' donations make greater benefits, Arcadyan promotes a loving, dual charity that both Public Interest Groups can get help. | ■ Purchase the *Children Are Us Foundation* cake gift box and transfer it to the disadvantaged children in the hometown.<br>■ Sponsored World Peace Council drama public performance, and transfer tickets to vulnerable children.<br>■ Donate charity clubs to flea market activities, and transfer income to charity groups.<br>■ Purchase rice from remote tribes and transfer it to *Huaguang Intelligent Development Center*.<br>■ Purchase tickets for World Peace Society children's drama performances, and transfer them to poverty-stricken children.<br>■ Provide summer short-term job for children of the *Taiwan Fund for Children and Families (TFCF)*. |
| **Move your fingers to do charity** | 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. | ■ 188 people subscribed to *Children Are Us Foundation* Festival cake to send love to the rural area.<br>■ 47 people subscribed to World Peace Moon cake to send love to the rural area.<br>■ 95 people participate in online donation of charity group Christmas gift.<br>■ 20 people participated in the activities of the *Taiwan World Peace Society* to save children's live Activity-the charity performance of children's drama in 2019. |
| **From zero to charity** | 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. | ■ From zero to one: From nothing to something, let colleagues have channels to participate in charity donations.<br>■ Accumulate less and make more: Use small money for charity, so that colleagues have a way to participate in charity donations.<br>■ Lump sum payment: from small change to whole number, making it easier for colleagues to participate in charity donations. |
| | | 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.<br>■ 32 people participated in the 10th Dream Flying Plan of *Xu Chaoying Foundation*.<br>■ 68 people participated in *Xu Chaoying Foundation's* "Love at the end of the year, free donation" |

## Other Activities

| | |
|---|---|
| Taiping Elementary School | • After school care plan subsidy: after-school care plan<br>• dream project, new Year's gift and graduation goods |
| Jinshan Elementary School | Dream Realization Project -" Mountain and Sea Dialogue ~Communication with Wangan Primary School " |
| Huashan Social Welfare Foundation | New Year's dishes donation, Dragon Boat Festival Gift Box, and Moon Festival gift boxes |
| Visually impaired institution | Hold a visually impaired massage activities |
| Children Are Us Foundation | • Order Mother's Day and Moon Festival cakes and make a present of vulnerable children.<br>• Workplace Observation Program of persons with disabilities<br>• ID(Intelligent Disable) Life Aesthetics Project<br>• Fundraising Ukulele Course Funds |
| World Peace Council | • Charity performance of children's drama and cultural tour of disadvantaged children<br>• Field trip plan for rural primary schools<br>• Send moon cakes to the rural areas during the Moon Festival<br>• Charity painting exhibition and the Happy New Year plan for the hungry children<br>• Regularly purchase rice from the kitchen of the ministry of indigenous peoples and donate it to disadvantaged families of the World Peace Council |
| Hsinchu Life Education Care Association | Sponsored summer camps series of activities |
| Eden Social Welfare Foundation | Slow flying angel (Slow Children) support project |
| World Vision Foundation | • Domestic child support<br>• Taiko drum project of Jinshan Elementary School<br>• Student assistance activities |
| Xu Chaoying Foundation | • Participate in the Dream Flying Plan<br>• "Love at the end of the year, free donation" activity |
| Taiwan People's Food Bank Association | Donate offering of resume business and Hungry Ghost Festival worship |

| Ai-Heng Training Center for Mental Retardation | ● Public welfare second-hand market<br>● Love forever and work together to cultivate a field of happiness activity |
|---|---|
| Hsinchu Fund for Children and Families | ● Warm winter garden party<br>● Donate to the Aboriginal school child service project<br>● Parent-child relationship promotion activity-"All member attendance family sports day"<br>● Support college students to work in the company during summer vacation |
| Spinal Cord Injury Foundation | Medical interviewer training program |
| Republic of China Resource Interconnection Association | ● "Love and Study Together" project<br>● Family day STEAM puzzle solving activity sponsor<br>● Send Love in Xmas activities |
| Hsinchu Blue Sky Home | Activity sponsor: Self-worth improvement plan -Junior cycling team challenge in Wuling |
| Science Park Huizhu Growth Society | Sponsor the public flea market activities and donate the money directly to Atayal Academy |
| Huaguang Intelligent Development Center | Purchase rice from remote tribes and make a present of Huaguang Intelligent Development Center |
| Kuen Tai Cultural and Educational Foundation | Donated tablets as a gift for the graduation of Chiayi's rural elementary school |
| Andrew Charity Association | Food bank project- Donate to disadvantaged children plan |

# Appendix

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## Independent Verification Statement

**afaq** Social Responsibility Assessed — AFNOR ASIA

### Assurance Statement

### On

ARCADYAN TECHNOLOGY CORP. Social Responsibility Report of 2019

AFNOR GROUP was established in 1926. We are the National standardization body of France, a permanent council member in ISO and one of the leading certification bodies in the world. AFNOR ASIA LTD., a subsidiary of Afnor Group, conducted this assignment using a verification team consisting of seasoned professionals highly trained in sustainability-related standards including AA1000 AS, AFAQ 26000, ISO 9001, ISO 14001, ISO 14064, OHSAS 18001 and ISO 50001, and with qualifications as lead auditors, or verifiers. Afnor Group hereby provides a summary of ARCADYAN TECHNOLOGY CORP. Social Responsibility Report of 2019 (hereinafter referred to as "the Report") but was not involved in any way in its preparation.

Afnor Group and ARCADYAN TECHNOLOGY CORP. (hereinafter referred to as "ARCADYAN") are independent entities. Afnor Asia Ltd. was commissioned by ARCADYAN to conduct the assessment and assure the Corporate Social Responsibility Report of 2019 was in accordance with AA1000 Assurance Standard (2008) (AA1000 AS 2008) and the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards).

#### SCOPE

The announced corporate social responsibility report covers ARCADYAN TECHNOLOGY CORP. (covering the Taiwan headquarters, China production center, Vietnam production center, etc., and the entity subsidiaries of the merger entity disclosed in the financial report, including those located in the United States, Germany, China, South Korea, Brazil, the United Kingdom and Australia) operating performance and activities related to the social, environmental and economic aspects.

AFNOR Asia is responsible for:

1. Evaluating the accordance of the Report with the Type 1 of AA1000 Assurance Standard (2008) based on the AA1000 Accountability Principles (2018). The reliability verification of the revealed sustainability performance information and data was not included. The verification scopes include sustainability issues, response mechanism, performance information, management systems of information, and the processes of materiality evaluation and stakeholder participation.

2. Evaluating the appropriate option of the Report and its disclosure of materiality topics by GRI Standards.

#### REFERENCES

- AA1000 Accountability Principles (2018) and AA1000 Assurance Standard (2008).
- GRI Standards (2016).

#### METHODOLOGY

- The inclusivity, materiality, responsiveness and impact in the Report were assessed according to the principles of management process against AA1000 Assurance Standard (2008).
- The contents and the level of disclosure of the Report were in accordance with GRI Standards core option and review the report's general standard disclosure requirements and specific subject disclosures (including management policies and projects) that meet the Standards.
- The mechanism of communication and response to the interest of stakeholders was verified through discussion and interview with the management team, however, the assessment team did not make any direct contact with external stakeholders.
- The qualitative and quantitative information produced, collected and disclosed by the Report was reviewed through a validated sampling plan.
- All of documents, data and information that are related to the preparation of the Report has been reviewed and verified by the assessment team via discussions with responsible individuals in ARCADYAN.
- A total of 6 employees, representatives from different departments and different management levels having participated in the sustainability management and preparation of the Report were respectively interviewed.
- The findings of internal audits and the effectiveness of CSR policy have been reviewed.
- All the supporting material and evidence which were used for the preparation of the Report were reviewed for adequacy and integrity.

#### CONCLUSION

◆ **AA1000 Accountability Principles and AA1000 Assurance Standard**

**Inclusivity**

ARCADYAN continues to implement an extensive stakeholder engagement program aimed at identifying and understanding stakeholders' interests and informational needs, which broadly includes issues from all parties. The impartial report sets out the economic, social and environmental message adequately to support planning and achieving targets. Future reports could be improved by the following recommendations :

- Stakeholder participation procedures should be clearly established to ensure that stakeholders participate fully and objectively and form strategies, plans, actions, and performance, and respond to stakeholder issues and impact on stakeholders.

**Materiality**

ARCADYAN has made their sustainability management information public available to enable the stakeholders to assess the management and performance of the company. ARCADYAN also develop and implement a decision-making mechanism to consider all critical issues from different stakeholders. Future reports could be improved by the following recommendations :

- Continue to strengthen the relevance of material issues to the operating procedures of various functions to facilitate the rational allocation of organizational resources and ensure the proper management of issues of material significance to the organization and stakeholders.

**Responsiveness**

ARCADYAN has developed and implemented the responding mechanism for stakeholders' interests to clearly declare the ethical policies and to communicate with interested parties. ARCADYAN has responded the ethical expectations and opinions from the stakeholders. Future reports could be improved by the following recommendations :

- Verify the proposed response by internal and appropriate external stakeholders, and ensure the feasibility to communicate a reasonable and feasible response.
- Continue to develop comprehensive, accurate, instant, accessible and balanced reporting methods to communicate information with stakeholders.

**Impact**

ARCADYAN has developed and implemented processes to understand, measure, evaluate and manage the impact of the organization and to provide the necessary capabilities and resources. ARCADYAN also committed to a comprehensive and balanced disclosure of the organization's impact measurement and assessment of stakeholders and themselves. Future reports could be improved by the following recommendations :

- Each function continues to strengthen the understanding, measurement and evaluation process of impacts. By using qualitative, quantitative or monetized measurement standards, and linking with departmental performance Indicators, the issues that have impact on stakeholders can be reasonable and managed as expected.

◆ **Global Reporting Initiative Sustainability Reporting Standards**

ARCADYAN has provided a self-declaration which followed the principles of defining report content and quality of GRI Standards. We confirm the related indicators refer to GRI Standards core option in the report have been compliance with guidelines. Some opportunities for improvement are:

- Continuously search and disclose the operational performance of each operating base, strengthen the setting and disclosure of management policies in accordance with reporting guidelines, and integrate them into the management process of each function, so that sustainability and performance management are internalized as the basis of organizational management.

**ASSURANCE OPINION**

In our opinion, the information and data presented in the Report by ARCADYAN is satisfactory and provides a fair and balanced representation. We believe the focuses on economic, societal and environmental matters in ARCADYAN in 2019 are well represented.

Afnor Group has developed a set of protocols for the Assurance of Sustainability Reports based on current practice guidance provided in the AA1000 Assurance Standard (2008) and GRI Standards (2016). We believe that the evidence collected by onsite assessment has exhibited that ARCADYAN did follow the guidance of AA1000 Assurance Standard (2008) and GRI Standards core option criteria, and their self-declaration in response to the Global Reporting Initiative.

**ASSURANCE LEVEL**

In accordance with the AA1000 Assurance Standard (2008), we verified this assurance statement corresponding to a moderate level. The scope and methods are as described in this disclaimer.

**LIABILITY**

This assurance statement is intended for the use of ARCADYAN only. AFNOR is not responsible for any other uses. Our responsibility is only based on the scope and methodology described, and to provide stakeholders an independent assurance statement.

For and on behalf of AFNOR :
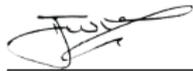
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