

**nuvoTon**

## Nuvoton Technology

### 2020 Corporate Social Responsibility Report

The invisible champion who enriches human life  
with green semiconductor technology







The invisible champion who enriches human life with green semiconductor technology

2020 Corporate Social Responsibility Report



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## Words from the Chairman

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In 2020, the global economy was affected by the COVID-19 pandemic, resulting in overall negative growth. However, the pandemic has dramatically changed our lifestyles and economic activities, leading to an increase of various remote and non-contact methods such as remote work, virtual schooling, online social networking, shopping, etc. This has spurred the development of related products and technologies, becoming a new growth point for the global economy. The continuous development of 5G network deployment, IoT (the Internet of Things), and automotive electronics applications has given the semiconductor industry a strong momentum towards growth. In this rapidly changing market environment with increasingly fierce industry competition, Nuvoton continues to grasp market trends to actively introduce new technologies, products, and services. On September 1, 2021, Nuvoton acquired the semiconductor business of Panasonic - Panasonic Semiconductor Solutions., Ltd. (PSCS), taking the opportunity to expand the scope of product application and optimize the product and customer portfolio, demonstrating Nuvoton's steady operation strength.

Looking to the future, Nuvoton adheres to the principle of sustainable development and continues to focus on the field of green semiconductor technology. By reducing the carbon footprint of our products to achieve the goal of carbon neutrality, we expect to contribute to the improvement of global climate change as our business develops. Nuvoton continues to grasp the market trends of digital transformation, as well as business opportunities such as 5G, IoT, cloud computing applications, and automotive automation for market expansion. In a market environment full of uncertainties, Nuvoton maintains flexible adaptability and combines the company's research and development (R&D) technologies and capabilities around the world, continuing to strengthen R&D capabilities to promote innovative applications and services to the world to generate new value.

Nuvoton continues to grow steadily in its main business areas, adhering to the concept of sustainable development. In 2020, Nuvoton was awarded the 2020 Outstanding Enterprise Award for Waste Reduction and Circular Economy by Hsinchu Science Park. We actively promote source reduction and resource recycling to move towards a circular economy. In the long-term goal of sustainable development, Nuvoton continues to invest in environmentally sustainable machinery and equipment that utilize energy conservation or green energy. In 2020, we replaced the high-pressure rotors in our air compressors and have continued to replace lighting equipment with LED tubes, estimating to save about 203,000 kWh of electricity in total, which specifically demonstrates the excellent results of our continuous investment in corporate social responsibility.

Nuvoton continues to promote the corporate culture of sustainable contribution, deepening various policies for sustainable development in three major aspects: economic, environmental, and social. We actively focus on and invest in corporate governance, customer service and supplier management, environment-friendly, best workplace, philanthropy, and other topics to build influence from our company.

## Corporate Governance

We value corporate governance, sustaining the principle of “integrity management” in establishing a robust corporate governance framework, while also continuing to strengthen management functions. In addition, through a robust internal control mechanism, we supervise the internal company operations to ensure financial information transparency while instantly revealing important information to decrease the risks related to corporate management. In terms of overall financial performance, Nuvoton’s 2020 consolidated revenue amounted to NTD 20.668 billion. Net income after taxes amounted to NTD 553 million. Earnings per share (EPS) amounted to NTD 1.81.

## Customer Service and Supplier Management

Nuvoton regards customers and suppliers as important partners and is committed to providing excellent quality to enhance the competitiveness of its customer products. We also implement a series of quality control mechanisms and customer satisfaction surveys to ensure the quality and reliability of our products. The 2020 customer satisfaction survey shows average satisfaction at above 4 points, and 80% of indicators exceeded that of 2019.

## Environment-Friendly

Complying with environmental laws, regulations, and international standards, Nuvoton is committed to becoming a green enterprise with sustainable development. We are committed to continuous improvement and we strive to reduce the impact of production on the environment and eliminate any foreseeable environmental pollution risks through source reduction and company-wide participation to protect the natural environment. In our production operations and activities, we will continue striving to achieve a level of development that balances economic, social, and ecological factors.

According to the statistics from the base year 2017 to 2020, the amount of photoresist per unit product has been greatly reduced from 12.6 to 7.66 g/layer-wafer mask, and unit usage decreased by 39%. A total use of 111 metric tons of raw materials has been reduced. The amount of photoresist waste liquid for per unit of product has been greatly reduced from 17.1 to 8.23 g/layer-wafer mask, while unit production decreased by 52%. A total of 209 metric tons of waste liquid has been reduced.

In 2020, Nuvoton was awarded the Outstanding Enterprise Award for Waste Reduction and Circular Economy (B Category Excellence) by Hsinchu Science Park.

## Best Workplace

Employees are the cornerstone of corporate development, and Nuvoton places great importance on talent recruitment. With a comprehensive management system, competitive salary and benefits, as well as an excellent working environment, we attract new talent to join Nuvoton. Through diversified education and training, employees can continue to improve with the company with corporate sustainable development. In 2020, employees at Nuvoton received a total of 19,293 hours of training, with average training hours of 13.39 hours. To create a “work happily, live seriously” LOHAS workplace culture, we promote friendly workplace events, such as celebrity lectures, sports days, social clubs, and company trips to enhance the physical and mental health and workplace happiness of our employees.

*Chairman of the Board*



## Philanthropy

In 2020, Nuvoton has continued to care for students and poor children in rural areas. At the end of each year, we launch donations for public welfare projects, hoping to do our best to care for those in need. Nuvoton's active efforts are especially extended towards the education and care of children. Nuvoton employees are very kind. The donation amount has been rising steadily since the start of donations. In 2020, 340 thousand were raised in a short period to help the medical care of poor children and children in nurseries. We hope that the love of Nuvoton employees can demonstrate the warmth of society to these children.





## 2020 Corporate Sustainability Performance Summary

Sustainability Topics		2020 Performance
Economic	Economic Performance	<ul style="list-style-type: none"> <li>Nuvoton's 2020 consolidated revenue amounted to NTD 20.668 billion. Net income after taxes amounted to NTD 533 million.</li> </ul>
	Corporate Governance	<ul style="list-style-type: none"> <li>In the fifth corporate governance evaluation, Nuvoton ranked in the top 5% in all publicly traded companies</li> </ul>
	Customer Satisfaction	<ul style="list-style-type: none"> <li>High customer satisfaction: satisfaction survey shows average satisfaction at above 4 points.</li> </ul>
	Supplier Management	<ul style="list-style-type: none"> <li>The proportion of localized purchases of raw materials in Taiwan in 2020 is 27.8%, which is 1.4% higher than the proportion of localized purchases of raw materials in Taiwan in 2019.</li> <li>In 2020, approximately 92.5% of our supply chain vendors have environmental management system certification. Vendors that were unable to obtain certification in time were required to establish a verification schedule.</li> <li>Nuvoton's top 80% packaging and testing plants and raw material vendors (a total of 10 plants and vendors) have conducted corporate social responsibility self-evaluations in 2020. The self-evaluation results comply with the requirements of Nuvoton.</li> <li>As of 2020, all of Nuvoton's outsourced wafer processing manufacturers packaging plants, packaging plants, and raw material suppliers (WF6 gases) have signed the "Statement of Non-use of Conflict Minerals".</li> </ul>
Environmental	Water Conservation	<ul style="list-style-type: none"> <li>Implemented a total of two major energy conservation measures, saving an estimated 200,000 kWh in electricity consumption per year.</li> <li>Nitrogen consumption per unit of product has continued to decrease. It decreased by 70.8% compared to the base year 2009.</li> <li>Sulfuric acid consumption per unit of product has continued to decrease. It decreased by 35.6% compared to the base year 2009.</li> </ul>
	Waste Management	<ul style="list-style-type: none"> <li>Nuvoton does not carry out waste input or output. Our waste disposal method prioritizes reuse treatment. Waste that cannot be reused is dealt with by incineration and landfill.</li> <li>The statistics of 2020 show that Nuvoton's waste collection and reuse (including resource recovery) ratio is 68%, with an incineration ratio of 24% and a landfill ratio of 9%. The ratio of waste landfill has increased in 2020 compared with 2019. This was affected by the increase in waste generated by non-routine construction.</li> </ul>
	Greenhouse Gas Reduction	<ul style="list-style-type: none"> <li>In 2020, manufacturing related FCs greenhouse gas emissions amounted to the carbon dioxide equivalent of 34.3 thousand tons, and the emission intensity amounted to 0.332 kilograms/squared centimeters-wafer. The emission intensity has reduced by 30.3% compared to the 2009 base year, and increased by 1.2% compared to 2019.</li> </ul>
Social	Labor Relations	<ul style="list-style-type: none"> <li>Labor disputes: 0. No discrimination or compulsory labor complaints occurred.</li> <li>In 2020, 19 female employees applied for maternity leave, and approximately 80% returned after the end of their leave period; and 13 male employees applied for paternity leave, and 100% returned after the end of their leave period. The aforementioned female employees who did not return directly to Nuvoton after their maternity leaves applied for unpaid maternity leave under the "Act of Gender Equality in Employment", with nearly 71% returning after their maternity leave. Furthermore, 86% of employees who began their maternity or paternity leave during the previous year returned to work this year.</li> </ul>
	Occupational Training	<ul style="list-style-type: none"> <li>Total employee training hours amounted to 19,293 hours and average training hours amounted to 13.39 hours.</li> <li>All employees completed CSR courses, amounting to a total of 4,182 attendees with a passing rate of 100%.</li> </ul>
	Occupational Safety	<ul style="list-style-type: none"> <li>Employees that had completed safety and health education and training reached a total of 4,290 attendees.</li> <li>There were a total of 69 annual emergency drills conducted (including fire alarms, chemical leakage, gas leakage, earthquake, system anomalies, limited operations, emergency evacuations, etc.)</li> <li>In the past three years, there have been no occupational accidents, work injuries or occupational diseases that caused deaths to employees and contractors.</li> </ul>
	Public Welfare Events	<ul style="list-style-type: none"> <li>We called out employees to participate in social welfare activities, and in 2020, we raised NTD 340,000 to help poor children and provide medical care to children in pediatric hospitals.</li> </ul>





# Overview

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- > Description
- > Communication and Participation of the Stakeholders
- > Modes of Communications with the Stakeholders



# About the Report

## Description

In 2014, Nuvoton voluntarily issued its first CSR report to practice corporate social responsibility. We started to regularly issue CSR reports in 2016, providing stakeholders with Nuvoton's efforts and performance in regard to the economy, environment, and society. At the same time, Nuvoton also publishes its report on the CSR area of the company website to establish a transparent and effective channel of communication for all stakeholders.

## Scope

Covering the period from January 1, 2020, to December 31, 2020, this report explains the various aspects of Nuvoton's business and their performance in regard to fulfilling corporate social responsibility. The financial data of this report is drawn from information listed in consolidated financial statements, which are inclusive of Nuvoton's global subsidiaries (including the United States, Israel, China, Hong Kong, and India), but excludes CSR data of global offices. Calculated in New Taiwan Dollars (NTD), the data were audited and certified by Deloitte Taiwan. For other categories of content, because the main operating bases of Nuvoton are located in Taiwan, the scope of disclosure in environmental and social issues, such as corporate governance and environmental protection, are specific to Nuvoton's operation base in Taiwan. The environmental data only collects the values of the Hsinchu plant and does not include the Zhubei and Tainan R&D buildings.

## Framework and Guidance

The framework and guidance of this report are based on an analysis of concerns held by Nuvoton's stakeholders, as well as issues considered to be significant during the period covered by this report. We have prepared this report in accordance with the latest GRI Standards released by the Global Reporting Initiative (GRI) to expose the performance results and management guidelines of the issues at hand. The appendix contains a comparison table of the framework for the reference of readers.

## Release Notes

### 2019 CSR report:

Scheduled to be released in November 2020

### 2020 CSR report:

Scheduled to be released in November 2021.

To fulfill CSR in regards to environmental conservation, an electronic copy of this report will be published on the company website. This report will be available in Traditional Chinese and English versions.

## Warranty

This report has commissioned an independent third party impartial unit, "SGS Taiwan Ltd.", to verify that the content complies with GRI Standards Core Option and AA1000AS TYPE 1 Assurance Engagement. The third-party verification statement can be found in the appendix.

## Give Feedback to the Report

We welcome your suggestions to the content of this report. You can contact us here:

### Contact method

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## Communication and Participation of the Stakeholders

Nuvoton is focused on sustainable management issues as well as communication with stakeholders to understand the major issues of interest to stakeholders. This report serves as a response to relevant major issues so stakeholders are able to more fully understand the actions and efforts that Nuvoton put into corporate social responsibility.

### Defining the Stakeholders

Taking into consideration foreign and domestic sustainable development and organizational operations, Nuvoton's Corporate Social Responsibility Committee defines the 8 main stakeholders of Nuvoton as the following: employees, customers, shareholders, directors and supervisors, suppliers, the government, community, and media.

### Identified Material Aspects

The Corporate Social Responsibility Management Committee has referred to the Responsible Business Alliance (RBA) Code of Conduct, as well as international quality standards and important industry issues. The committee also follows the GRI Standard to review the suitability of the list of issues, collecting the levels of concern stakeholders have on various topics through questionnaires. 33 topics of concern for stakeholders have been consolidated according to economic, environmental, and social aspects. The following describes the process for identifying the concerns of stakeholders:

**Collection:** In accordance with the stakeholders as defined by the Corporate Social Responsibility Management Committee, as well as GRI standards, we consolidated the various topics of concern to stakeholders and divided them into three categories: economic, environmental, social, and product. We listed a total of 33 material aspects for stakeholders.

**Survey:** Through the form of questionnaires, stakeholders filled out information regarding their level of concern towards sustainable issues, giving 1 to 5 points (from low to high) depending on their level of concern. A total of 112 questionnaires were collected on the degree of concern for stakeholders. In addition, Nuvoton's internal Corporate Social Responsibility Management Committee conducted impact degree ratings, giving 1 to 5 points (from low to high) depending on the degree of impact. A total of 14 questionnaires were collected on the external degree of impact of business operations.

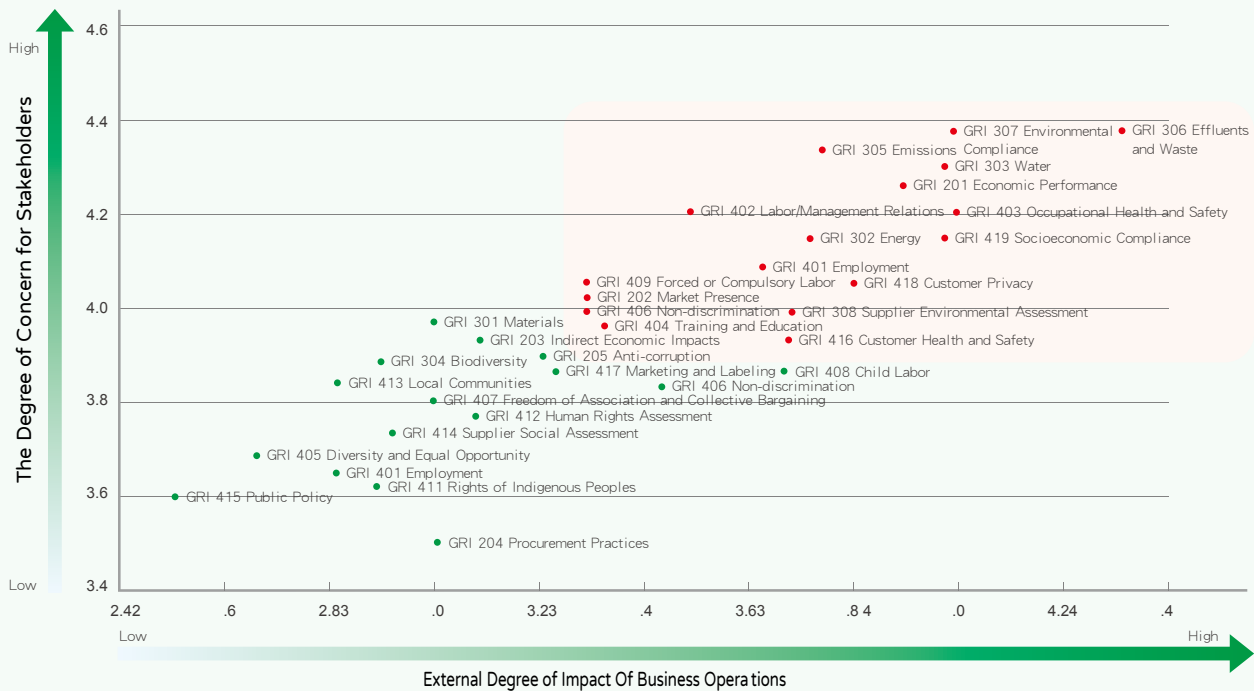
**Analysis:** We analyzed the results of the selection (the degree of concern for stakeholders and the external degree of impact of business operations) before identifying and prioritizing topics of concern.

**Submission:** After receiving approval from the Corporate Social Responsibility Management Committee, the results of the analysis laid the framework for this report. Furthermore, Nuvoton has responded to various significant issues and based its goals for further improvement on the results of this analysis. The substantive analysis results are as follows:

No.	Category	Content
1	Environmental	GRI 306 Effluents and Waste
2	Environmental	GRI 305 Emissions
3	Environmental	GRI 307 Environmental Compliance
4	Economical	GRI 201 Economic Performance
5	Environmental	GRI 303 Water
6	Social	GRI 403 Occupational Health and Safety
7	Social	GRI 402 Labor/Management Relations
8	Social	GRI 419 Socioeconomic Compliance
9	Environmental	GRI 302 Energy
10	Social	GRI 418 Customer Privacy
11	Social	GRI 401 Employment
12	Social	GRI 409 Forced or Compulsory Labor
13	Economical	GRI 202 Market Presence
14	Social	GRI 416 Customer Health and Safety
15	Environmental	GRI 308 Supplier Environmental Assessment
16	Social	GRI 404 Training and Education
17	Social	GRI 406 Non-discrimination

## Substantive Analysis Results

The topics of concern for stakeholders in sequence are as follows:



## Response to the Significant Topics of Concern

Based on the results of the material analysis, we have listed 17 significant topics of concern for stakeholders in the following table. This report discloses GRI standards in regards to material aspects, management policies, and related indicators to conduct comprehensive performance disclosure.

Element	Material Aspect	Nuvoton (IC design, wafer fabrication)	External	
			Vendor	Client
Economical	Economic Performance	●	○	○
	Market Presence	●	○	○
Environmental	Energy	●	●	○
	Water	●	●	○
	Emissions	●	●	○
	Effluents and Waste	●	●	●
	Environmental Compliance	●	●	●
	Supplier Environmental Assessment	●	●	●
Social	Employment	●	○	○
	Labor/Management Relations	●	○	○
	Occupational Health and Safety	●	○	○
	Training and Education	●	○	○
	Non-discrimination	●	○	○
	Forced or Compulsory Labor	●	○	○
	Customer Health and Safety	●	○	○
	Customer Privacy	●	○	●
Socioeconomic Compliance	●	●	●	



## Modes of Communications with the Stakeholders

Nuvoton has collected significant topics of concerns for stakeholders, establishing a diverse and open communication channel so it can provide immediate responses to the expectations and recommendations of stakeholders. Nuvoton also has a corporate social responsibility email, [csr@nuvoton.com](mailto:csr@nuvoton.com), so internal and external stakeholders can put forward corporate social responsibility issues.

Stakeholder	Topics of Concern	Communication Channel	Communication Frequency
Employees	<ul style="list-style-type: none"> <li>· Employer-Employee Relationship</li> <li>· Labor/Capital Relationship</li> <li>· Occupational Health and Safety</li> <li>· Education and Training</li> <li>· Diversification and Equal Opportunity</li> <li>· No Discrimination</li> </ul>	Labor-Management Meetings	Quarterly
		Executives Management Sharing Meetings	Quarterly
		Executives Management Sharing Meetings	Quarterly
		Employee Welfare Committee	Quarterly
		Employee Suggestion Box	Irregularly
		Grievance Mailbox and Hotline	As needed
		Intranet	Irregularly
		Irregular Meetings within the Organizations	Irregularly
Customers	<ul style="list-style-type: none"> <li>· Anti-corruption</li> <li>· Occupational Health and Safety</li> <li>· Supplier Social Assessment</li> <li>· Customer Privacy</li> <li>· Customer Health and Safety</li> </ul>	Customer Satisfaction Surveys	Annually
		Customer Survey or Site Audits	Irregularly
		Company Website - Members Zone	Irregularly
		Technical Seminars	Irregularly
		Phone and email	As needed
Shareholders	Economic Performance	General Shareholders' Meetings	Annually
		Investor Conferences	Every six months
		Financial Annual Reports	Annually
		Company Website	Irregularly
Directors and Supervisors		Board of Directors Meetings	Quarterly
Suppliers	<ul style="list-style-type: none"> <li>· Sewage and Waste</li> <li>· Legal Compliance on Environmental Protection Regulations</li> <li>· Occupational Health and Safety</li> <li>· Customer Health and Safety</li> </ul>	Supplier Evaluations	Every six months
		Supplier CSR Surveys	Annually
Government	<ul style="list-style-type: none"> <li>· Sewage and Waste</li> <li>· Legal Compliance on Environmental Protection Regulations</li> <li>· Socioeconomic Compliance</li> </ul>	Official Notices	Irregularly
		Legal Rules Conferences	As needed
		Communication with the Competent Authorities through the Allied Association for Science Park Industries	As needed
Communities	<ul style="list-style-type: none"> <li>· Waste water and waste</li> <li>· Sewage and Waste Discharge</li> <li>· Legal Compliance on Environmental Protection Regulations</li> <li>· Local Communities</li> </ul>	Company Website	As needed
		Email	As needed
Media		Press Conferences/Irregular interviews	Irregularly
		Press Releases	Irregularly
		Company Website	Irregularly







# Company Overview

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## About Nuvoton

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Nuvoton was established to bring innovative solutions to the semiconductor industry. Nuvoton was founded in 2008. In July of that year, it was spun-off from Winbond Electronics' Corporation Logic IC business unit and officially launched its own operations. In 2010, Nuvoton became publicly listed on the Taiwan Stock Exchange. With a focus on the development of micro control/micro processing, as well as IC products for smart home and cloud security related applications, the company holds a leading position in the industrial electronics, consumer electronics, and computer markets. Furthermore, Nuvoton owns a semiconductor foundry that provides customized analog and power management product manufacturing processes. Apart from its in-house IC products, Nuvoton also offers a part of its capacity for foundry services.

<b>Company Name</b>	Nuvoton Technology Corporation
<b>Founded</b>	2008
<b>Capital</b>	NTD 3,833,936,000
<b>Main products and technologies</b>	Our operational focus lies in the design and sales of integrated circuits, as well as the foundry industry
<b>Number of Employees</b>	1,428
<b>Headquarters Address</b>	No. 4, Creation 3rd Road, East District, Hsinchu City, Taiwan



## Company Vision

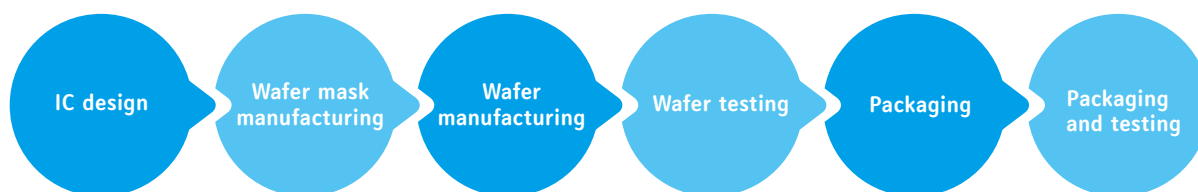
### The invisible Champion Enriching Human Lives with Green Semiconductor Technology

Due to the development of semiconductor technology, the breakthrough in transmission bandwidth and the popularity of information sharing has caused cloud computing to become the developmental focus of digital life. With worsening global warming, limited natural resources, and the pressure to maintain an ecological balance, green technology has become the key to sustaining human civilization. We can experience infinite possibilities in the aforementioned development space.

With courageous, like-minded partners that love learning, our organization is a passionate and creative team, constructing a competitive advantage with innovation as its core. Nuvoton is committed to creating a happy work environment where employees can have the freedom to imagine and invent, as well as achieve their ideals or learn from failure. The purpose of innovation is to create user value. The manifestation of value is not confined to a single form or source. We set out to create innovation with our customers and partners, driving the development of our industry, while giving back to our employees, shareholders, and community so we can share the joy of innovation.

## Innovative Technology and Products

### IC Industry Value Chain



In the IC industry value chain, Nuvoton's operational focus lies in the design and sales of integrated circuits (IC), as well as the foundry industry. Backend raw material procurement, outsourced manufacturing, and packaging testing are carried out by the suppliers. General purpose IC remains the principal item of Nuvoton's integrated circuits, but the scope of application is extensive, including microcontroller (MCU) applications, as well as smart home and cloud security products. In addition, the company also owns a 6" wafer fab with monthly production capacity for 45,000 pieces featured with a diversity of process capacity for foundry service. Nuvoton's main products and services are as follows:

## » General Purpose IC

Nuvoton's general purpose IC products include microcontrollers (MCU) applications, as well as smart home and cloud security products. Nuvoton's microcontroller applications utilize a complete product platform, including the 8-bit product line and 32-bit product line. With ultra-low power consumption, high precision, high anti-interference, rich peripheral resources, and high security and confidentiality requirements, it satisfies the market needs of the Internet of Things (IoT), health care electronic products, industrial control, consumer electronics, and communication products.

Smart home products include Audio CODEC, Arm® Cortex®-M0/M4, Audio MCU with 4/8-bit MCU as the core, and Class D Speaker Amplifiers. The target market includes diversified applications such as smart toys, smart robots, smart audio, consumer electronics, as well as automotive and industrial markets.

For cloud security products, Nuvoton utilizes a top-down approach in the industrial ecosystem, from cross-border data centers, supercomputer servers, edge computing to computer-related smart devices. Focusing on the integrated field specialty, Nuvoton jointly develops innovative features with long-term clients which includes communication interfaces, security framework, and energy management, providing brand manufacturers and outsourced manufacturers with specialized server-use baseboard management controllers, power management controllers, trust platform modules, Super I/O, and embedded controllers.

Battery management related products include lithium battery monitoring ICs that can be applied to automotive and industrial applications, and cooling fan motor drive ICs that can be applied to data centers, base stations, and home appliances. The semiconductor component products are mainly CSP (Chip-Size Package) MOSFETs which are used for circuit protection of small lithium batteries. They can be applied to various portable devices.

Image sensing technology products include 2D and 3D applications. The 2D sensor has the advantages of small size and high image quality, and can be applied to various consumer and medical photography equipment. 3D sensing utilizes a ToF (Time of Flight) sensor that provides both high precision and high stability, coupled with unique DSP (Digital Signal Processor) signal processing technology to achieve the strict quality requirements of HMI (Human Machine Interface) required by the automotive market. It can also be used in industrial or commercial fields such as human behavior recognition or obstacle sensing.

IoT products provide MCUs for power control, secure microcontrollers for IC cards, and HDMI 2.1 high-speed transmission interface ICs.

## » Semiconductor Foundry

Nuvoton owns an advanced 6" semiconductor foundry. With more than 25 years of experience in wafer fabrication, the foundry upholds the spirit of innovation and transcendence, continuing to provide a long-term and stable production capacity, excellent product quality, and timely deliveries. With a strong R&D team and semiconductor supply chain resource integration services, we utilize the innovative thinking of "More-Than-Foundry" to created added value for customers, becoming an indispensable partner for our clients in this competitive market.

### • Technologies and Products Developed in 2020:

Year	Results
2020	<p>The system security protection chip NCT6692D protects the system firmware capability, and has passed the CAVP certification of the Computer Security Resource Center (CSRC), which is under the National Institute of Standards and Technology (NIST).</p> <p>Launched NUC131U - the first 32-bit Cortex-M0 core microcontroller that passed AEC-Q100 Grade 2 certification</p> <p>The NuMicro® M2351 Series microcontroller is the world's first microcontroller based on Arm® Cortex®-M23 core, and has obtained Arm® PSA Certified Level 1 and PSA Functional API Certified in 2019. In 2020, it has passed the Arm® PSA Certified Level 2 security and reliability certification, which can defend against most software attacks and protect the information security of cloud applications on connected devices.</p> <p>Launched NAU83G10 and NAU83G20 - the series of new smart power amplifier chips for the consumer audio product market, which have built-in integrated high-performance Class D amplifiers and Tensilica HiFi audio DSP built on Klippel Controlled Sound technology (KCS)</p>



## Market Analysis

Nuvoton's main products are sold across the world. Asia was the main sales region for 2020.

### • Main Products (Services) Sales (Supply) Regions

Unit: Thousand NTD

Sales Region	2020	
	Amount (Thousand NTD)	Percentage(%)
Asia	20,259,853	98%
America	199,776	1%
Europe	203,569	1%
Other	4,858	0%
Total	20,668,056	100%

Source: Please refer to page 63 of Nuvoton's 2020 Annual Shareholders' Meeting Annual Report.

### • Production Value Table

Unit: Production Capacity thousand chips / thousand wafers / thousand die; thousand NTD

Sales Region	2020			
	Production capacity(*)	Output		Output Value
		Wafer	Die	
General Purpose IC	692	1	2,994,672	12,346,107
Foundry		462	-	1,326,003
Other		-	-	15,100
Total		463	2,994,672	13,687,210

\*Note: Production capacity is expressed through 6" wafers.

Source: Please refer to page 67 of Nuvoton's 2020 Annual Shareholders' Meeting Annual Report.

## Responsibility to Our Investors

With innovation as the foundation for its operational guidelines, Nuvoton is committed to the development of new fields of application, and the expansion and strengthening of the company's capacities and technologies. Every year since Nuvoton became publicly listed in 2010, we have been continuously creating value for investors through dividend payouts and the maintenance of a stable financial structure.

To quickly share material information with our investors, we host investor conferences every half year to enhance communication and help them fully understand our quarterly financial figures and business condition. After the event, video recordings of the conference are uploaded to our website to serve as a reference. Additionally, major company activities, important events, and other related information can be found in the investor's area of Nuvoton's official website (<http://www.nuvoton.com/>).

## Financial Performance

### Economic Performance Management Policies

<b>Importance</b>	Continue to create corporate surpluses to create maximum benefits for shareholders and enhance corporate value
<b>Policies/ Commitments</b>	Master industry development trends to develop high value-added products and improve corporate governance and operational performance, becoming an industry benchmark which practices corporate sustainability
<b>Goals</b>	Continue to focus on product optimization and increase market share to enhance competitive niche
<b>Promotion Priorities and Practices</b>	Continue to track various financial performance indicators for risk analysis and assessment
<b>Performance Results</b>	Gross margin amounted to 38%, profit margin 3%, and earnings per share (EPS) of NTD 1.81.

Nuvoton's 2020 consolidated revenue amounted to NTD 20.668 billion, up 99% from 2019; net income after taxes amounted to NTD 553 million, down 4% from 2019.

For both 2020 and 2021, Nuvoton allocated earnings from the previous year. For these two years, the cash dividends issued were NTD 1.2 and NTD 0.8, respectively. For 2019 and 2020, the earnings per share (EPS) were NTD 2.53 and NTD 1.81, respectively.

• Financial Performance over the Past Five Years

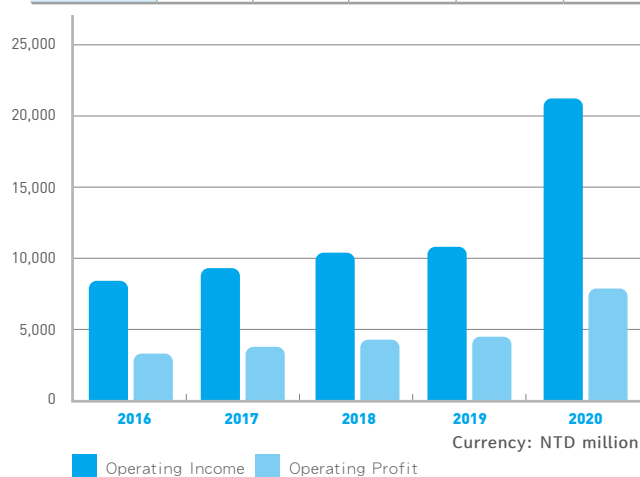
Currency: NTD million

	2016	2017	2018	2019	2020
Operating Income	8,329	9,235	10,040	10,367	20,668
Operating Cost	4,921	5,503	6,127	6,239	12,961
Operating Profit	3,408	3,732	3,913	4,128	7,707
Net Profit Before Tax	709	799	839	667	743
Income Tax Expense	96	111	128	109	211
Net Profit After Tax	613	688	711	558	533
R&D Expense	2,216	2,388	2,524	2,823	5,516
Employee Benefits Expense	2,534	2,696	2,760	2,880	4,819
Total Assets	5,898	6,149	6,118	11,156	32,323
Retained Earnings	1,127	1,298	1,426	1,459	1,700
Total Equity	3,378	3,663	3,734	7,392	11,521

• Consolidated Operating Income and Profit

Currency: NTD million

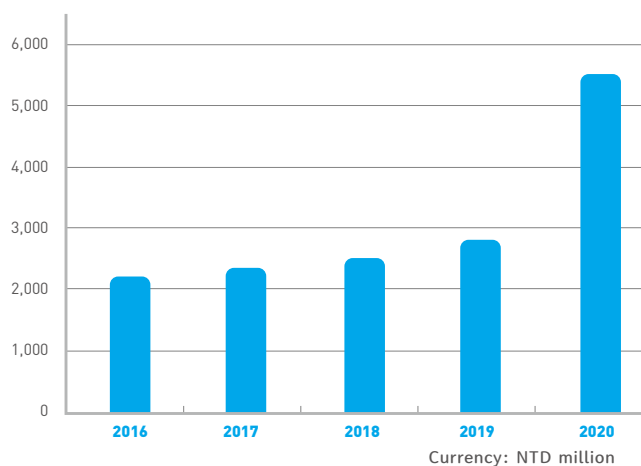
	2016	2017	2018	2019	2020
Operating Income	8,329	9,235	10,040	10,367	20,668
Operating Expense	4,921	5,503	6,127	6,239	12,961
Operating Profit	3,408	3,732	3,913	4,128	7,707



• Consolidated R&D Expense

Currency: NTD million

	2016	2017	2018	2019	2020
R&D Expense	2,216	2,388	2,524	2,823	5,516



## Association (Guild) Membership

Nuvoton actively participates in industry associations, guilds, and technology alliances to obtain the industry's latest technology and establish good relationships with relevant units, contributing to the overall development of the industry.

Item	Name of Association (Guild)	Membership
1	The Allied Association for Science Park Industries	●
2	Taiwan Electrical and Electronics Manufacturers' Association	●

## Glory and Affirmation

In addition to performing exceptionally well in its main area of business, Nuvoton also adheres to the concept of sustainable development in the working environment. The awards and recognition received between 2014 and 2020 are listed in the table below:

### 2020

- The system security protection chip NCT6692D protects the system firmware capability, and has passed the CAVP certification of the Computer Security Resource Center (CSRC), which is under the National Institute of Standards and Technology (NIST).
- Launched NUC131U - the first 32-bit Cortex-M0 core microcontroller that passed AEC-Q100 Grade 2 certification
- Awarded the 2020 Outstanding Enterprise Award for Waste Reduction and Circular Economy by Hsinchu Science Park
- The NuMicro® M2351 Series microcontroller is the world's first microcontroller based on Arm® Cortex®-M23 core, and has obtained Arm® PSA Certified Level 1 and PSA Functional API Certified in 2019. In 2020, it has passed the Arm® PSA Certified Level 2 security and reliability certification, which can defend against most software attacks and protect the information security of cloud applications on connected devices.

### 2019

- Passed the inspection of DQS UL (Deutsche Gesellschaft zur Zertifizierung von Managementsystemen) and obtained the occupational health and safety management system certification in accordance with ISO 45001-2018.
- We launched the latest TPM2.0 security chip products that comply with the latest specifications of the PC client TPM 2.0 formulated by the Trusted Computing Group (TCG), and passed the Common Criteria (CC) EAL 4+ security level certification and the United States The Federal Information Processing Standard Publication FIPS 140-2 level 2 password security certification. Our products were directly utilized by OEM brands of major computer platforms (NB, DT, Server) worldwide.
- Launched M261/M262/M263 series of microcontrollers with low power consumption and safety.
- Released NuMicro® M2351 IoT security microcontroller - the first FreeRTOS real-time operating system that supports Arm® Cortex®-M23 core
- Launched the new Arm® Cortex®-M0 MCU NUC029 series
- Exhibited the world's first microcontroller based on Arm® Cortex®-M23 core that has also passed Arm® PSA Certified Level 1 and PSA Functional API Certified, serving the global IoT security market

### 2018

- Audio controller and audio codec components have successfully expanded to the customers of front-line game consoles
- Launched the NuMicro® M2351 series of microcontrollers focused on IoT security with built-in TrustZone® technology.
- Actively reduced electricity consumption in our plant area, and won the "Energy Conservation Elite" award from the Ministry of Economic Affairs.
- Cooperated with SEGGER to provide dedicated emWin embedded GUI software
- Launched the NuMicro® M480 series Arm Cortex®-M4 microcontrollers that combines high performance with secure boot mechanism and hardware encryption
- The BMC server remote management control chip product is supported by the Open Compute Project (OCP) OpenBMC open source firmware support, which can share BMC firmware development results with OCP members to concoct powerful computing performance.

- TPM security chip products jointly collaborated with the American software company, OnBoard Security Software, to jointly promote the complete security solutions of IoT software and hardware. This ensures that applications are protected from malicious hackers and have the highest level TPM2 .0 safety certification for hardware.

### 2017

- Actively participated in environmental training activities, becoming the "2017 Environmental Education Partner" of the Hsinchu Science and Industrial Park.
- Launched the new high-performance TPM2.0 chip (NPCT75x), which supports the latest specifications of TCG 2017, and has passed the Microsoft Win10 RS3 security chip performance test certification.
- The air pollution prevention and control personnel received the "Excellent Environmental Protection Personnel" award by the Hsinchu Science and Industrial Park.
- Introduced the new third-generation BMC (baseboard management controller) products. It supports the Intel Purley server platform, using the highest performance Cortex A9 dual-core processor and supporting BMC secure boot to prevent firmware attacks. The series of products has already been utilized by numerous international firms.
- Launched the 1T 8051 microcontroller - N76E003 with high specifications and low pins

### 2016

- Launched security chip NPCT6xx which obtained TPM 2.0 Common Criteria certification.
- Nuvoton's innovative Internet of Things (IoT) development platform achieved ARM mbed OS certification.
- Ranked in the top 20% in the 3rd corporate governance evaluation.
- Recognized as a good water conservation unit by the Water Resources Agency of the Ministry of Economic Affairs.
- Received the good water conservation vendor award by the Science Park Administration of the Ministry of Science and Technology.
- The emission reduction for the Environmental Protection Administration's Advanced Program has amounted to 46,198 tons.
- Recognized as good occupational safety and health personnel by the Hsinchu Science Park Bureau.

### 2015

- Launched first security chip in the world to obtain Common Criteria, FIPS and TCG certification at the same time.
- Launched world's first SIO and EC that supports both LPC and eSPI. Equipped with high performance 32-bit ARM based Cortex-M4 computing core, it provides the best solution to the platform management of PC, NB, and Chromebook.
- The 3rd "Taiwan MITTELSTAND Award"
- Hsinchu Science Park Corporate Environmental Excellence Award
- Honorary Mention, Nursing Room Competition (Workplace Division)
- Taiwan Corporate Sustainability Report Bronze Award

### 2014

- Nuvoton Ships its 100 millionth ARM® Cortex®-M0 MCU
- The 3rd "National Industrial Innovation Award"
- 2014 Award for International Trade Outstanding Export/Import Business Certificate



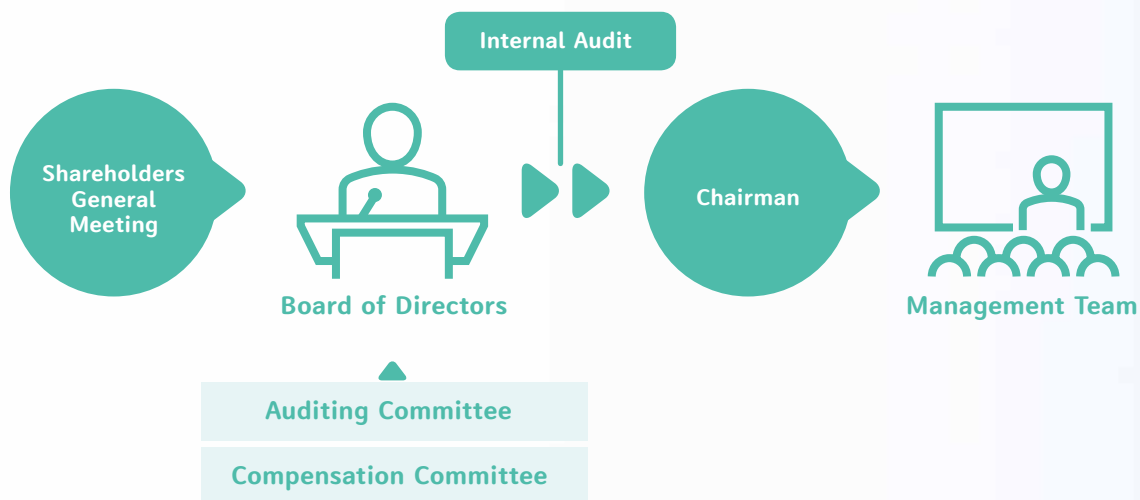




# Corporate Governance

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- > Corporate Governance Framework
- > Board of Directors
- > Corporate Social Responsibility Committee
- > Code of Conduct and Regulatory Compliance
- > Regulatory Compliance
- > Risk Management



## Board of Directors

### Board of Directors Organization

Nuvoton's Board of Directors utilizes a candidate nomination system. The directors are elected through a list of nominees at shareholders' meetings. The 6th Board of Directors is comprised of 9 directors, among which 4 are independent directors, and 1 director is a woman.

Nuvoton's Board of Directors is comprised of directors with professional backgrounds and technical experience. We rely on the knowledge, personal insight, and business acumen of each director in assuming responsibility for the operation and supervision of the company. The board members' background information, academic qualifications, and concurrent positions in other companies, Board of Directors, and functional committees are disclosed in the company's annual report. Information on the company's annual report can be found on the Market Observation Post System and Nuvoton's official website ([www.nuvoton.com](http://www.nuvoton.com)). To improve supervision functions and strengthen management functions, in addition to the Board of Directors, we have also set up an Auditing Committee and the Salaries and Remuneration Committee to strengthen the structure of corporate governance.

Title	Name	Gender
Chairman	Representative of Winbond Electronics Corp: Yuan-Mou Su	Male
Director	Arthur Yu-Cheng Chiao	Male
Director	Yung Chin	Female
Director	Ken-Shew Lu	Male
Director	Chi-Lin Wei	Male
Independent Director	Royce Yu-Chun Hong	Male
Independent Director	Allen Hsu	Male
Independent Director	David Shu-Chyuan Tu	Male
Independent Director	Je-Li Xu	Male



## Board Member Responsibilities

Nuvoton's Board of Directors is responsible for defining the company's operating principles, long-term and short-term plans for development, annual business plan, and approving budgets and supervising the execution of company policies, as well as other material issues raised during shareholders' meetings or board meetings. The board's primary responsibility is to monitor compliance, financial transparency, the immediate disclosure of important information, internal corruption, and other such areas. To fulfill its oversight responsibilities, the Board has established a variety of organizations and avenues, such as a Compensation Committee and internal auditors.

Nuvoton's management team must report the company's operating conditions and other important issues to the Board of Directors, and provide information and comments for the board's reference. Board meetings must be held at least once every quarter. 11 board meetings were held in 2020. Important resolutions are also immediately announced on the Market Observation Post System. As a response to the increasing international emphasis on corporate governance and corporate social responsibility development in recent years, in addition to scheduling annual training courses for the directors, Nuvoton also irregularly provides directors with professional training course information held by external units. More information is available on the Market Observation Post System.

In order to implement corporate governance and enhance the functions of the Board of Directors, Nuvoton stipulated the "Measures for the Compensation and Performance Evaluation of Directors" to strengthen performance assessment. Since December 2017, the directors have been evaluated on board operations, personal participation, and continuing education. The results of the assessment are summarized by the Compensation Committee and the Board of Directors, measuring the strategic direction of the Board of Directors while supervising the company operation management to for the benefit of long-term value for shareholders. The 2020 Board of Directors' self-evaluation results can be found in Nuvoton's 2020 annual report.

## The Auditing Committee

Nuvoton established the Auditing Committee in June 2016. The committee members are mainly responsible for assisting the board in implementing and supervising the company in the quality and integrity of accounting, auditing, the financial reporting process, and financial control. For external investors, the committee represents an independent body that supervisors the company to actively protect the rights of investors.

Nuvoton's Auditing Committee is fully comprised of independent directors. There are currently 4 members, of which one is the convener. At least 1 member must have accounting or financial expertise. An Auditing Committee meeting is held at least once every quarter. Meetings are to be convened on an as-needed basis. 10 meetings were held in 2020.

### • Nuvoton's Auditing Committee Members

Title	Name
Independent Director, Auditing Committee Chairman	Allen Hsu
Independent Director, Auditing Committee Chairman	Royce Yu-Chun Hong
Independent Director, Auditing Committee Chairman	Jeï-Li Xu
Independent Director, Auditing Committee Chairman	Jeï-Li Xu

## Compensation Committee

Nuvoton established the Compensation Committee in 2011. Members of the Compensation Committee are appointed by the Board of Directors. Through a professional and objective perspective, this committee assesses, established and regular reviews the policies, system, standards, and structure of compensation for directors, supervisors, and managers of the company according to defined policies and systems, and makes recommendations to the board to serve as a reference for its decisions.

According to the "Compensation Committee Charter", the committee must be comprised of 3 or more members. Currently comprised of 4 independent directors, the Compensation Committee holds a general meeting at least once every six months. 3 meetings were held in 2020. More information about the Compensation Committee meetings can be found in Nuvoton's 2020 annual report. The committee's articles of association are published in the investor's area of the company's website.

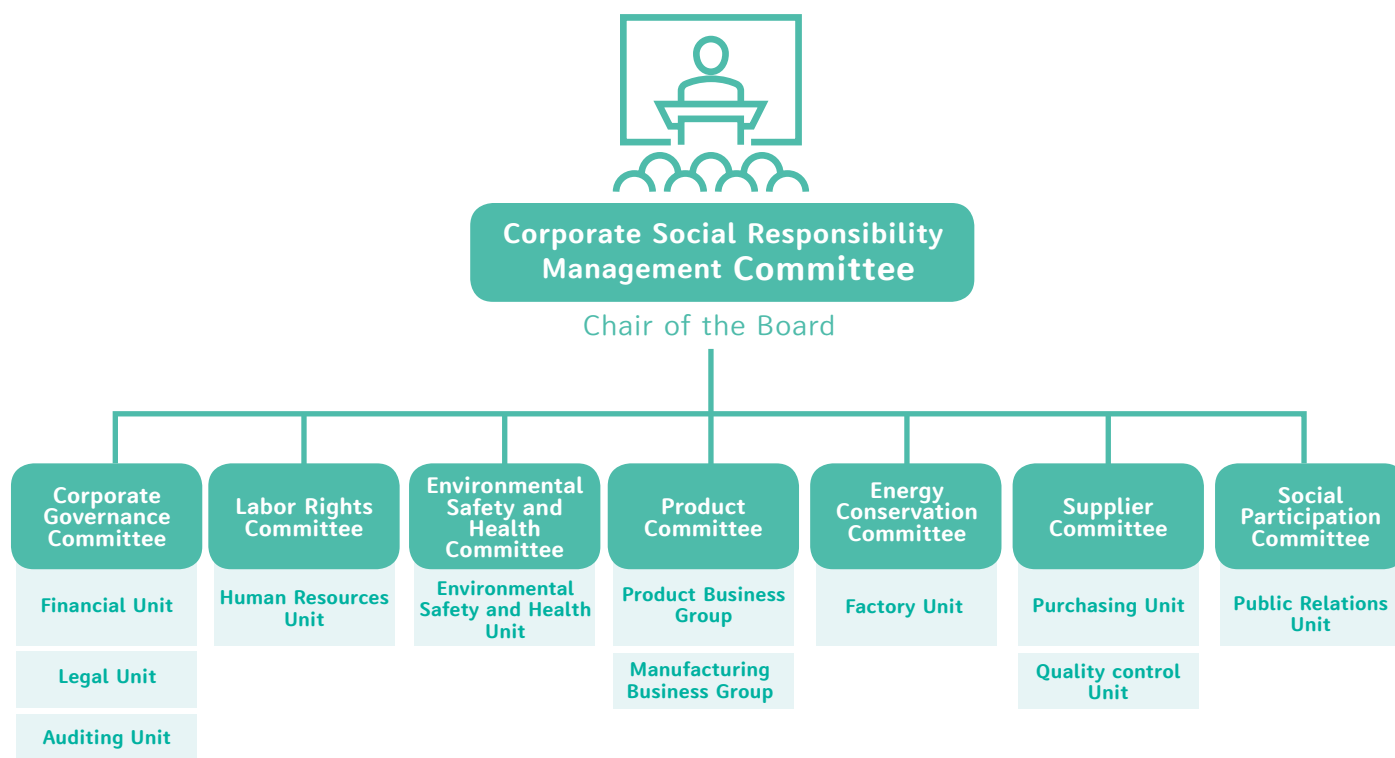
### • Nuvoton's Compensation Committee Members

Title	Name
Independent Director, Auditing Committee Chairman	David Shu-Chyuan Tu
Independent Director, Auditing Committee Chairman	Royce Yu-Chun Hong
Independent Director, Auditing Committee Chairman	Allen Hsu
Independent Director, Auditing Committee Chairman	Jeï-Li Xu

# Corporate governance



## Corporate Social Responsibility Committee



Nuvoton established the Corporate Social Responsibility Management Committee in 2012 to improve the management of corporate social responsibility. The committee is responsible for corporate social responsibility policies, systems, and related management policies, as well as the formulation, implementation, and promotion of plans. In compliance with the ESG indicators (Environmental, Social, and Governance), the committee promotes the company's sustainable development to bring positive benefits to the environment, society, and economy.

The chairman has designated a high-level supervisor to serve as the chair of the committee to convene functional groups that are responsible for promoting and implementing corporate social responsibility policies. Each year, the Corporate Social Responsibility Committee will set CSR performance objectives and project implementation measures. A regular meeting is held every six months to examine corporate social responsibility compliance and the implementation results of the various programs. The Corporate Social Responsibility Committee gives an annual CSR performance report to the Board of Directors every year.



## Code of Conduct and Regulatory Compliance

### 2020 Code of Conduct and Regulatory Compliance Management Policies

#### Importance

Nuvoton complies with various domestic and foreign regulations to prevent its operations from being exposed to risks. We also avoid engaging in illegal and unfair competition to establish a good corporate image and ensure legal operation.

#### Policies / Commitments

To ensure the implementation of integrity management and regulatory compliance, Nuvoton continues to focus on domestic and foreign policies and laws that may affect its businesses and finances, and regularly promote the core values of integrity management.

#### Goals

To have 100% completion rate of the annual code of conduct and regulatory compliance. No major violations (fines exceeding NTD 1 million) of the law.

#### Promotion Priorities and Practices

Through educational training and communication, Nuvoton continues to strengthen correct professional ethics and legal concepts of employees. An internal control system was established for regulatory compliance based on the implementation and measurements, including the effectiveness of the current control system covering all company operations. Conduct regular regulatory tracking, identification, and implementation to comply with relevant regulations.

#### Performance Results

The completion rate for the annual corporate social responsibility related regulation compliance staff training was 100%. The company had no complaints filed about operations, employee violations of ethics, or any illegal conduct in 2020.



## Adherence to Ethical Values

Nuvoton complies with domestic and foreign ethics laws and regulations, and pays close attention to updates or changes made to regulations and decrees. Nuvoton regularly stipulates or amends internal related work practices or measures. "Corporate Social Responsibility Best Practice Principles", "Ethical Corporate Management Best Practice Principles", "Integrity Management Breach Measures", and "Corporate Social Responsibility Code of Conduct" requires Nuvoton's overall operating activities to comply with relevant laws and regulations. We conduct annual corporate integrity educational training courses every year on "corporate social responsibility policies" and "integrity management". Each employee is provided with a "Corporate Social Responsibility Policy and Statement Promotion Card" to strengthen corporate social responsibility and the ethical values of all employees.

Under Nuvoton's Corporate Social Responsibility Code of Conduct, Ethical Business Conduct Guidelines (hereinafter referred to as "Guidelines") are defined that require all employees of Nuvoton to abide by the highest standards of integrity, and to ensure compliance with all laws and regulations. The guidelines are as follows:

- Comply with all relevant government regulations and international norms.
- Ensure business integrity, and prohibit all acts of bribery, corruption, extortion, and embezzlement.
- Do not offer or accept improper benefits, and avoid conflicts of interest.
- Emphasize corporate governance, disclose company information in accordance with laws and regulations, and avoid being hypocritical.
- Comply with principles of good faith and fair trade. Do not conduct exaggerated/false advertising and marketing.
- Provide a safe and healthy working environment.
- Implement "Customs-Trade Partnership Against Terrorism (C-TPAT)" program guidelines in daily operations.
- Respect internationally-recognized labor principles and rights. Do not hire people under the ages of 15 or involuntary personnel (through coercion, mortgage, debt, indentured servitude, enslavement, or human trafficking).
- Ensure that all employees enjoy equal rights without discrimination.
- Do not harass, unlawfully discriminate, coerce, or inhumanely treat employees (including prospective employees).
- Do not use internationally banned substances in the production processes.
- Comply with all relevant environmental protection regulations and laws.
- Respect intellectual property rights and protect the personal information of those who do business with us.
- Require suppliers to comply with all relevant laws while emphasizing corporate social responsibility.

## » Training

To help employees establish correct legal concepts and enhance their understanding of corporate social responsibility, Nuvoton regularly holds business integrity educational training courses on "Corporate Social Responsibility Policies" and "Integrity Management". The courses explain the regulations in a clear and easy way, and employees are required to take tests after the courses to enhance their understanding of related legal compliance.

The 2020 educational training data on the compliance of relevant laws and regulations of corporate social responsibility are as follows:

### • New Staff Training Data:

	Title	Title
Number of Trainees	133 people	135 people
Completion Rate	100%	100%

### • General staff training data:

	Corporate Social Responsibility Code of Conduct	Integrity Management
Number of Trainees	1,394 people	1,394 people
Completion Rate	100%	100%

## » Grievance Mechanism

Nuvoton has formulated the "Grievance Measures for Violation of Integrity Management", which specifies the company's relevant operating procedures for handling complaints of violations of business integrity. We have also set up many grievance channels, such as a physical suggestion box and an inbox for internal disclosure of illegal activities. Nuvoton has also established reporting areas internally and on our public website, so if there are any unjust or unfair illegal acts, internal or external personnel can conduct anonymous or named reports through various grievance channels. Furthermore, there are grievance confidentiality and protection measures. If employees discover that we have violated relevant laws and regulations of the Labor Standards Act, or have violated the integrity management or ethical standards, they may file a complaint or report. For complainants or whistleblowers, the undertaking staff and related supervisors will keep the identity of any complainants/ whistleblowers secret and the content of their complaint strictly confidential, and will not reveal their identity without the consent of the complainant/ whistleblower. If it is necessary to reveal the identity of the complainant/ whistleblower, the undertaking personnel shall discuss the way of proceeding with the complainant/ whistleblower before proceeding. Supervisors and employees of all levels shall not discriminate, coerce, or conduct other unfavorable behaviors against employees that have filed a grievance. Its operating procedures are handled in accordance with the provisions of the "Company Internal Grievance Measures". When a grievance is received, the task force will initiate an investigation. No grievances were received in 2020.



## Internal Auditing System

Nuvoton has set up an internal auditing unit under the board of directors. In accordance with the company size, business conditions, management needs, and other relevant laws and regulations, Nuvoton has appointed a total of two full-time internal auditors. Nuvoton established its internal control system according to laws and regulations, which is based on the implementation and measurement of all Nuvoton business operations as well as the effectiveness of the current internal control system of Nuvoton and its subsidiaries.

The internal auditing unit prepares an annual audit plan based on the results of the risk assessment, which are then approved by the Auditing Committee and the board of directors. The internal auditing unit operates according to the auditing plans.

The internal auditing unit reviews Nuvoton's internal control system and various operations through the aforementioned auditing work. They assist the board and the management to reasonably confirm the achievement of related objectives such as operation, reporting, and compliance: the effectiveness and efficiency of operations. This includes achieving operational and financial performance objectives and maintaining asset security, as well as the reliability, timeliness, transparency of internal and external financial reporting and non-financial reporting and its compliance with relevant laws and regulations.

The internal auditing unit supervises the various units and subsidiaries in their annual self-inspections of the effectiveness of their internal control systems. Then, the internal auditing unit reviews the self-inspection reports of all units and subsidiaries, as well as the effectiveness of their internal control systems. The consolidated self-inspection results serve as a basis for the board and president in their Internal Control Systems Statement.



## Regulatory Compliance

Nuvoton has customers from all over the world. To ensure the implementation of integrity management and regulatory compliance, we continue to pay attention to domestic and foreign policies and regulations that may affect Nuvoton's businesses and finances. We also regularly promote the core values of integrity management.

Nuvoton complies with the Company Act, Securities and Exchange Act, Business Entity Accounting Act, Political Donations Act, Anti-Corruption Act, Fair Trade Act, and other related laws. Furthermore, Nuvoton has stipulated corporate governance rules and procedures for employees to follow.

Furthermore, Nuvoton has launched compliance-related programs and courses to provide employees with a better understanding of intellectual property rights. The courses also stress the importance of protecting trade secrets, helping employees become more familiar with the latest laws and regulations. Nuvoton employees can check relevant training course information and promotional materials on the internal website to further ensure our commitment to compliance.

Nuvoton employees continue to gain further awareness of regulatory compliance, as well as enhance performance of execution through cooperation between various departments.

## Regulatory Identification and Inspection

In order to monitor and identify the applicability and compliances of labor, ethics, environmental protection, health, corporate governance related laws and regulations, and other requirements, Nuvoton has a dedicated unit which conducts applicability identification and conformity checks on the relevant laws and regulations of newly added or revised rules on a regular basis every six months. The results of the identification tests will be reported at the Corporate Social Responsibility Committee meetings, and the relevant information will be updated on the Nuvoton's internal corporate social responsibility website for reference. Nuvoton complies with the Responsible Business Alliance's (RBA) Code of Conduct to conduct regulatory inspections on a quarterly basis. The 2020 applicable laws and changed compliance identification results were both compliant.

### Applicable Laws and Changed Compliance Identification Tests

Legal Period	Testing Results
First Half of 2020	Compliant
Second Half of 2020	Compliant



## Risk Management

### Financial Risk

» The influence of interest rate fluctuations:

Furthermore, Nuvoton maintains good relationships with multiple financial institutions and can receive lower interest rates when needed. Therefore, interest rates do not have a significant impact on company operating costs.

» The influence of exchange rate fluctuations:

Nuvoton's exchange rate risk is mainly attributable to the business activities. For the exchange rate risk arising from purchases or sales, there's a general offset of foreign currency income and foreign currency expenditure. We also maintain close relations with financial institutions and continuously observe exchange rate changes to reduce the risk of exchange rate fluctuations. We continue to implement the following response measures against exchange rate fluctuation risks:

- A. We utilize the transactions of derivative financial products, and our selection of trading commodities are mainly based on hedging risks arising from our business operations. In addition, when selecting the trading targets, we first take into account credit risk to avoid loss caused by default. In selecting transaction targets, we select from financial institutions that we have a good relationship with and that can provide professional information.
- B. Nuvoton keeps abreast of financial market information, evaluates trends, and is familiar with financial products, regulations, and operational skills to provide sufficient and timely information to the management and relevant departments for reference.
- C. The maximum unrealized loss of all contracts undertaken by Nuvoton for derivative financial commodity transactions is limited to 20% of the total contract amount, or 3% of the owner's equity, whichever is lower. The financial unit conducts periodic monthly evaluations and prepares a report, which is reported to the head of the financial unit and senior executives authorized by the board of directors to predict the risks and possible profits and losses of each transaction.

» The influence of inflation:

Nuvoton will continue to actively manage costs and operating expenses in the future to mitigate the impact of inflation on operations. Currently, there has not yet been any significant inflation in domestic or foreign markets that have had any significant impact on Nuvoton

### Information Security Risk

Nuvoton has stipulated "Nuvoton Security Policies" and "Information Security Management Measures", and has established control measures to protect Nuvoton's information and information systems from theft, computer crime, industrial espionage or other forms of damage or loss. In view of new cyberattacks and the constant threat of security, Nuvoton regularly holds information security management meetings. In addition, we also analyze and evaluate information security risks to establish management plans and regular tracking for projects that may cause risks. To enhance employee awareness of information security, Nuvoton arranges employees to take online learning courses in information security online, and also conducts social engineering exercises from time to time. These measures serve to continuously improve our ability to protect against information security risks.

### Risks to Health and Safety

Nuvoton has set up a company-wide "Environmental Security and Risk Management Committee". The committee holds a meeting every quarter to discuss daily health and safety management issues and to promote occupational safety and health, health management, environmental protection and damage prevention results, regulatory compliance, and constant improvement plans. The meetings serve to implement safety and health communication.

### Supplier Risk

Vendors with stable levels of supplies are an important part of maintaining competitiveness. With current degrees of globalization, a natural disaster or accident might affect the stability of the entire supply chain. As a result, we uphold the principle of "many suppliers from many locations" in establishing sources for materials. Long-term agreements with major raw material suppliers not only help increase our own inventory, but also enable zero risk delivery through consignment. If we are unable to establish a second supplier for a particular item, then we request vendors and distributors to prepare safety stock, while using the Just-in-time (JIT) method to reduce supply risk.





# Customer Service and Supplier Management

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- > Customer Service and Satisfaction
- > Customer Satisfaction Survey
- > Protecting Customer Privacy
- > Code of Conduct and Regulatory Compliance
- > Regulatory Compliance for Products

## 2020 Customer Service and Privacy Management Policies

<b>Importance</b>	Adhering to the philosophy of meeting customer needs, Nuvoton provides excellent and competitive product quality and services to gain the trust of customers. Nuvoton is committed to protecting the confidential information of customers to ensure the rights of the company and its customers.
<b>Policies / Commitments</b>	To guarantee that the quality and reliability of its products will completely satisfy the needs of its customers, Nuvoton is committed to delivering competitive products with "zero defects".
<b>Goals</b>	Provide excellent service and good quality to become the best partner for customers. » 2020 compliance of product laws and regulations and the protection of customer privacy: No complaints » Customer satisfaction scores $\geq$ 4 points
<b>Promotion Priorities and Practices</b>	» Customer Service: Implement a range of quality control mechanisms and regular customer satisfaction surveys to ensure product quality and reliability. » Customer Confidential Information: Nuvoton signs confidentiality agreements with customers to protect confidential customer information. We also have a confidential data protection program to prevent data from being leaked, properly protecting customer privacy.
<b>Performance Results</b>	» The 2020 customer satisfaction survey shows average satisfaction at above 4 points, and 80% of indicators exceeded that of the previous year (2019) » In 2020, there have been no occasions in which products or services have violated relevant health, safety, or voluntary guidelines (products and services still within their life cycle) » In 2020, there have been no complaints about proven breaches of customer privacy or loss of customer data » In 2020, there have been no significant fines or violations of the law/regulations regarding the distribution or use of products or services.

## Customer Service and Satisfaction

To guarantee that the quality and reliability of its products will completely satisfy the needs of its customers, Nuvoton is committed to delivering competitive products with "zero defects". Methods used include quality control, reliability assurance, and failure analysis.

### Quality Control

Nuvoton implements a series of quality control mechanisms that covers every step of the production process. The main steps to its quality control operations include raw material inspection, wafer fabrication process, electrical characteristics test, and die packaging. Nuvoton continuously monitors every step of the manufacturing process. By doing so, Nuvoton is able to gather information about every layer of feedback, detect problems quickly and efficiently, and conduct an assessment analysis followed by corrective measures. The company emphasizes that every step of the manufacturing process must be "done right the first time" to result in an output with "zero defects", thereby establishing high quality and reliable product lines.

### Reliability Assurance

At Nuvoton, the purpose of the reliability assurance test is to ensure high-end product performance throughout the expected product life cycle. Each manufacturing stage undergoes constant review, analysis, and evaluation. Amendments are made to improve quality and reliability.

### Failure Analysis

Customers may return defective products to Nuvoton. In the event of this, Nuvoton discusses with the customer the most appropriate method to replace, replenish, or offer a discount to compensate for any loss incurred by the customer. Meanwhile, Nuvoton completes a comprehensive physical and electrical test as well as a failure analysis on any defective integrated circuits (IC) to determine the root causes of product failure, and responds with corrective actions and measures for improvement. Furthermore, Nuvoton closely monitors this process to ensure that measures for improvement are effectively implemented, and also provides customers with a detailed written report of the failure analysis.



## Customer Satisfaction Survey

Nuvoton's quality assurance unit regularly gathers customer feedback to gain valuable suggestions and insight into the level of customer satisfaction in regards to new product marketing/sales, delivery, quality improvement, technical support, and customer service. Targets include the purchasing, quality assurance, and research and development units of customers.

The Quality Assurance Department summarizes customer reviews, complaints, satisfactions, and suggestions for improvement before convening the Business Department, Sales Department, R&D Department, and Production Management Department to answer each customer feedback and draw up improvement plans. They are required to propose improvement plans within a month to serve as Nuvoton's performance goal and respond to customers so customers can receive direct and immediate feedback. The quality assurance unit delivers the final consolidated results to management to serve as a resource to continue improving satisfaction.



### Customer Satisfaction Survey Results:

The assessments of each satisfaction indicators include the following items:

**A. Marketing / Sales:** Development speed of new products, application files, new product features / breadth, new product information / promotion / propagation

**B. Orders / Delivery:** Flexibility of receiving orders, response time for orders, on-time delivery, product packaging

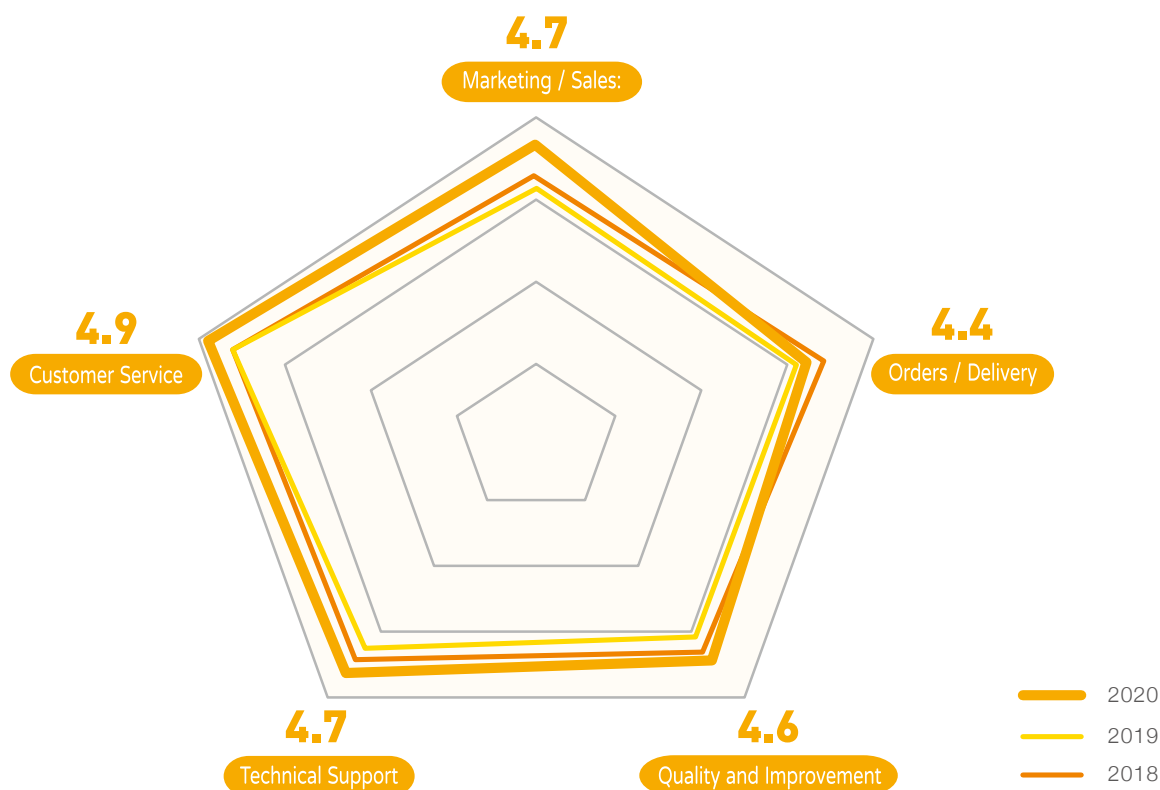
**C. Quality and Improvement:** Defect rate, sample quality, analysis of defects, improvement measures

**D. Technical support:** Prompt technical support, analysis capabilities, development flexibility

**E. Customer Service:** communication channels, service attitude, response speed, professional knowledge, processing returned purchases

Lowest rating: 1. Highest: 5.

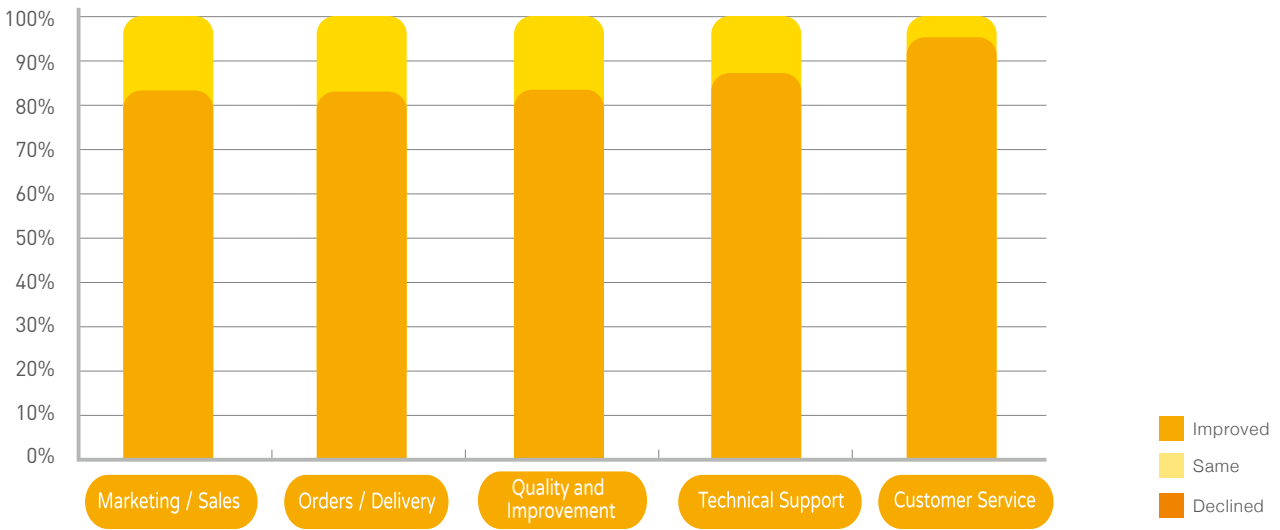
Ratings are classified as follows: (1) Very Unsatisfied, (2) Unsatisfied, (3) Average, (4) Satisfied, (5) Very Satisfied.



- All items have ratings above 4 (satisfied). Customers were most satisfied with Customer Service, which continues to gain satisfaction ratings from customers.

Customer service

• 2020 Customer Satisfaction Survey: Customer Evaluations Compared with Last Year



• All indicators over 80% scored better than that of last year (2019).

## Protecting Customer Privacy

Nuvoton has taken appropriate measures to ensure compliance with the “Personal Data Protection Act” , the General Data Protection Regulation (GDPR) from the European Union, and the California Consumer Privacy Act (CCPA) from California, US, and other such privacy protection laws. Nuvoton has not received any complaints regarding about customer privacy or loss of customer information during this year.

In addition to improving customer service, Nuvoton also pays attention to protecting customer privacy and intellectual property rights. Nuvoton signs confidentiality agreements with customers to protect their confidential information. Furthermore, Nuvoton has set up confidential data protection procedures to ensure that there is no risk of leaking confidential information, properly protecting customer privacy. Nuvoton has not received any complaints for infringement of customer privacy or leakage of confidential information in 2020.

• The Degree of Customer Privacy Protection and Product Compliance in 2020:

0 cases	Total number of occasions in which products or services have violated relevant health, safety, and voluntary guidelines (products and services still within their life cycle)
0 cases	Total number of complaints about customer privacy or loss of customer information
NTD 0	Total number of significant fines due to violations of the law and/or regulations regarding the distribution and/or use of products or services

## Regulatory Compliance for Products

Nuvoton requests that all products use materials that comply with the European Union Restriction of Hazardous Substances Directive (EU ROHS), REACH, and halogen-free requirements. Nuvoton has also reduced the use of chemical substances in its manufacturing process. There were no violations of laws or regulations between 2020, meeting both international regulations and customer requirements.

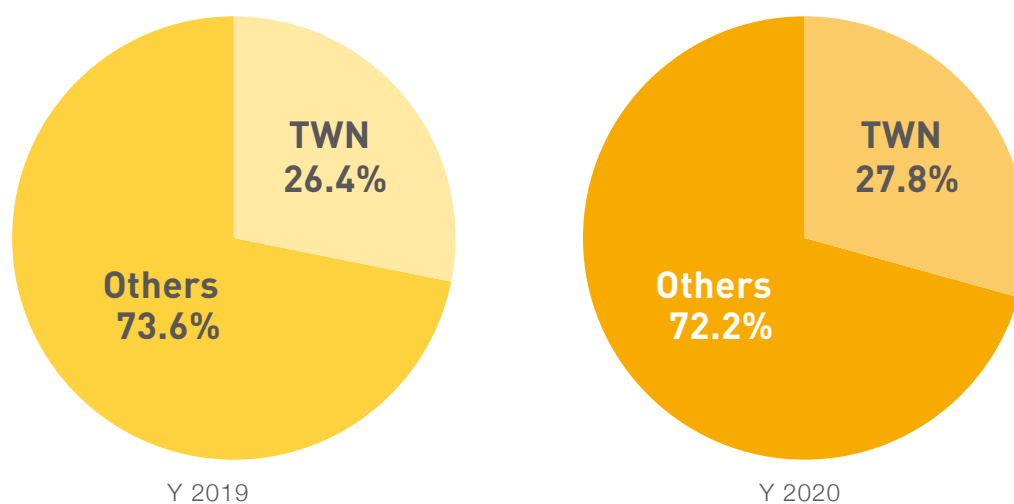
# Sustainable Supply Chain Management

## Sustainable Supply Chain Management Policies

<b>Importance</b>	Establish a stable and secure supply chain to ensure the quality of raw materials and provide customers with quality services.
<b>Policies / Commitments</b>	Nuvoton treats suppliers as partners to build a stable supply chain. In recent years, Nuvoton has been committed to the local production of raw materials for the purpose of reducing transportation costs, diversifying risk, and reducing carbon emissions. Furthermore, Nuvoton hopes to increase employment opportunities by cultivating local production.
<b>Goals</b>	Nuvoton adopts the Responsible Business Alliance's (RBA) Code of Conduct and is committed to the promotion of corporate social responsibility. In addition to quality, delivery and price, Nuvoton also confirms that suppliers' labor, ethics, environment, management system, and health and safety regulations comply with the latest regulations. We seek to fulfill our CSR vision of "providing a sense of safety, reassurance, and empathy".
<b>Promotion Priorities and Practices</b>	The selection, regular evaluation, and coaching of existing suppliers ensure that partner suppliers meet the requirements of Nuvoton.
<b>Performance Results</b>	<p>In 2020, the monetary proportion of raw materials purchased from Taiwan was 27.8%, up 1.4% from 2019.</p> <p>In 2020, approximately 92.5% of our supply chain vendors have Environmental Management System certification. Vendors that were unable to obtain certification in time were required to establish a verification schedule.</p> <p>Nuvoton's top 80% packaging and testing plants and raw material vendors (a total of 10 plants and vendors) have conducted corporate social responsibility self-evaluations in 2020. The self-evaluation results comply with the requirements of Nuvoton.</p> <p>In 2020, all of Nuvoton's outsourced wafer processing manufacturers packaging plants, packaging plants, and raw material suppliers (WF6 gases) have signed the "Statement of Non-use of Conflict Minerals".</p>

## Localized procurement

Since its inception, Nuvoton has always considered its suppliers as long-term partners towards achieving the common goal of establishing a stable semiconductor supply chain. In recent years, Nuvoton has been committed to the local production of raw materials for the purpose of reducing transportation costs, diversifying risk, and reducing carbon emissions. Furthermore, Nuvoton hopes to increase employment opportunities by cultivating local production. In 2020, the monetary proportion of raw materials purchased from Taiwan was 27.8%, up 1.4% from 2019. However, due to industrial limitations, Nuvoton will still maintain close relationships with local suppliers in the future, while striving to reduce overall costs and risks together by achieving win-win situations. Localized procurement is an important strategy for Nuvoton when choosing suppliers.



## Supply Chain Management

Nuvoton stands firm in its commitment to promoting corporate social responsibility. In addition to the factors of quality, delivery, and price, Nuvoton also takes the following approaches to managing its suppliers in order to confirm that the labors, ethics, environment, management systems, health, and safety of suppliers meet the latest regulations, so we can fulfill our corporate social responsibility vision of “providing a sense of safety, reassurance, and empathy” :

- In addition to complying with industrial safety and environmental protection requirements, Nuvoton also requires suppliers to focus on promoting CSR together.
- Based on principles for the protection of human rights, Nuvoton pays close attention to the issue of conflict minerals. For the raw materials in its production processes, Nuvoton is committed to avoiding the use of minerals obtained from illegal mining operations that stand in violation of human rights. Relevant suppliers are required to sign the “Statement of Non-use of Conflict Minerals” .
- Nuvoton pays close attention to how labor rights are respected throughout its supply chain, and requires suppliers to comply with the laws of the countries they operate in and relevant international industry practices, including Code of Conduct by the Responsible Business Alliance (RBA) as well as any subsequent changes or amendments. All supply chain vendors are required to jointly sign the "Agreement to Comply with Business Code of Conduct" and the "Non-Disclosure Agreement." 』

## Supply Chain Management Method

o establish a supply chain management mechanism with sustainable growth, Nuvoton utilizes the following three methods for control and counseling for its supply chain management:



For quality / price / environmental / human rights assessment, Nuvoton requires each of its vendors to sign “Agreement to Comply with Business Code of Conduct” and “Non-Disclosure Agreement” .



Conduct packaging tests every year. Suppliers in the top 80% of raw material weight are required to conduct self-appraisals.



Educational training is conducted to suppliers whose self-evaluation scores are below 80 points to provide a better understanding of the basic concepts of CSR.





## Selection of New Suppliers

Nuvoton assesses quality, price, environmental protection, and other such factors in selecting vendors. Vendors must meet our requirements to become a qualified supplier for Nuvoton. In 2020 a total of 8 vendors were selected.

### » Environmental Management System Certification

Nuvoton encourages its supply chain vendors to obtain international certification, such as the Environmental Management Systems Standard ISO 14001. If a vendor is unable to obtain certification immediately, they are required to establish a schedule to do so. To date, approximately 92.5% of our supply chain vendors have environmental management system verification.

### » Ethical Requirements

Nuvoton actively adopts the Responsible Business Alliance's (RBA) Code of Conduct. Nuvoton requires each vendor to sign an "Agreement to Comply with Business Code of Conduct" and a "Confidentiality Agreement", which compel them to trade and transact honestly without undermining the interests or image of Nuvoton.

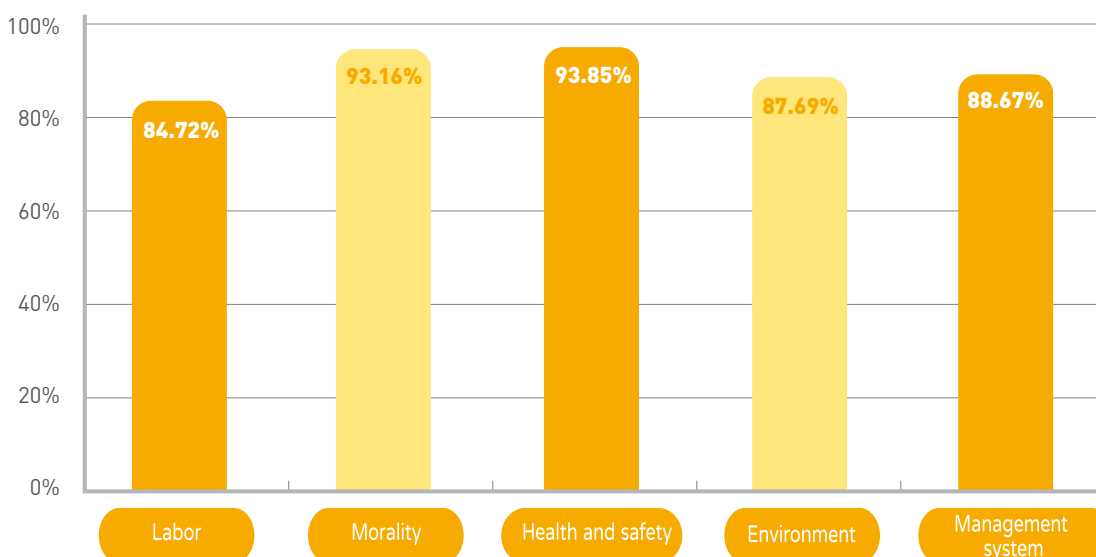
### » Conflict Minerals Management

Nuvoton requires related vendors to sign the "Statement of Non-use of Conflict Minerals", which includes outsourced wafer processing manufacturers, packaging plants, and raw material suppliers (WF6 gasses).

## Supplier Assessment

Supplier Corporate Social Responsibility Self-evaluations: In 2020, Nuvoton had its packaging and testing plants and top 80% of raw material vendors (a total of 10 plants and vendors) conduct corporate social responsibility self-evaluations. The self-evaluations scores reviewed by Nuvoton were all higher than 80, which meet Nuvoton requirements. The proportion of each 2020 evaluation indicator to the full score is indicated below. The chart shows that manufacturers attach the most importance to the issue of health and safety, while environmental-related management systems accounts for the lowest proportion.

- 2020 Supplier Corporate Social Responsibility



Conflict Mineral Investigation Reports: Nuvoton requires related vendors, including outsourced wafer processing manufacturers, packaging plants, and raw material suppliers (WF6 gasses), to investigate and disclose conflict minerals in a due diligence report. Survey intervals are conducted in accordance with the Responsible Business Alliance's (RBA) Code of Conduct. Nuvoton conducts conflict mineral investigations for the above suppliers (including outsourcers), and the suppliers are all in compliance with relevant regulations.

## Supplier Counseling

If the CSR self-assessment scores are below 80, educational training will be conducted for suppliers to strengthen the understanding of basic CSR concepts to facilitate follow-up CSR implementation. No suppliers failed CSR self-assessments in 2020.







# Environment-Friendly

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- > Environmental Management
- > Cherishing Resources
- > Pollution Prevention
- > Greenhouse Gas Management
- > Green Product

# Environmentally Friendly



## Environmental Management

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### Environmental Management System

Nuvoton strives towards its goal of “continuous improving to become a green business with sustainable development” . Nuvoton draws from the spirit of ISO 14001 and OHSAS 18001 P-D-C-A to continuously improve our Environment, Safety, and Health (ESH) Management System. Through process optimization and company-wide participation, we continue to reduce the use of key raw materials and the emission of pollutants in accordance with environmental regulations. We obtained ISO14001 and OHSAS18001 certifications when Nuvoton was founded in 2008. In 2016, we passed ISO14001: 2015 certification, incorporating the concept of life cycles into our environmental management system. In 2019, we passed ISO45001: 2018 Occupational health and safety management systems certification, which replaces the OHSAS18001 management systems.

In addition to promoting daily environmental management related businesses through organization, Nuvoton has also set up an ESH and Risk Management Committee to regularly address and review law compliance, issues of interest to stakeholders, and programs for continuous improvement of the environment. The committee has organized specific groups, such as the energy-saving and greenhouse gas reduction group, to research reduction targets and guidelines for important environmental issues, and implement various related reduction programs.

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### Environmental Management Strategy

With an environmentally friendly attitude, Nuvoton has stipulated three major environmental protection strategy items: “cherishing resources” , “reducing emissions” , and “developing green products” . Through the promotion of cleaner production and the continuous improvement of the ESH system, Nuvoton strives to reduce the impact that products and production activities have on the environment.

Nuvoton actively promotes cleaner production. In 2015, Nuvoton obtained the “Cleaner Production Evaluation System” certification from the Industrial Development Bureau, Ministry of Economic Affairs. In 2018, we passed the extension application review, and we effectively and actively utilize resources to prevent pollution and reduce the impact of production on the environment.



## Environment-Friendly

Complying with environmental laws, regulations, and international standards, Nuvoton is committed to becoming a green enterprise with sustainable development. We are committed to continuous improvement and we strive to reduce the impact of production on the environment and eliminate any foreseeable environmental pollution risks through source reduction and company-wide participation to protect the natural environment. In our production operations and activities, we will continue striving to achieve a level of development that balances economic, social, and ecological factors.

## Cherishing Resources

### 2020 Energy Management Policies

Importance	The world is in a state of resource shortage. Thus, Nuvoton strives to improve the efficiency of energy use and recycling to achieve a stable energy supply. This saves operating costs and also accomplishes the company's sustainable business and environmental sustainability goals.
Policies / Commitments	<ul style="list-style-type: none"> <li>» Continue to improve energy and resource efficiency by complying with energy laws and regulations.</li> <li>» Give priority to energy-saving or energy-efficient products and services to ensure access to information resources and improve energy efficiency.</li> <li>» Advocate full participation in energy conservation and carbon reduction, and reducing greenhouse gas emissions.</li> <li>» Regular review energy targets and the implementation of energy management systems.</li> </ul>
Goals	<ul style="list-style-type: none"> <li>» Effectively control energy use, and conduct annual reviews to reduce energy use.</li> <li>» Total electricity consumption in 2020 (million kWh) decreased by 12% compared to the base year 2009.</li> </ul>
Promotion Priorities and Practices	<p>For the energy resources used - electricity, diesel, natural gas and chemical raw materials, Nuvoton utilizes the following promotional methods:</p> <ul style="list-style-type: none"> <li>» Establish energy management measures, such as: air-conditioning zone management (factory, office area), setting up maintenance plans, improving the service life of equipment and reducing power consumption, prioritizing energy conservation when using or purchasing equipment, etc., in order to enhance the concept of energy conservation and sustainable development.</li> <li>» Effectively control the energy use of energy-consuming equipment in factories, and regularly review and formulate improvements through the Environmental Safety Committee or the cost down meetings.</li> <li>» Cooperate with the government's philosophy to effectively execute and implement energy conservation and carbon reduction.</li> </ul>
Performance Results	<p>Implemented a total of 2 power-saving measures, reducing electricity consumption by 200,000 kWh/year. Total electricity consumption has continued to decrease, and has been reduced by 13.1% compared to the base year 2009.</p> <p>Nitrogen consumption per unit of product continued to decrease, which was reduced by 70.7% compared to base year 2009.</p> <p>The use of sulfuric acid per unit of product continued to decrease, which was also reduced by 35.6% compared to base year 2009.</p>

Nowadays, with the increasing advancement of technology, aggravating energy consumption is accompanied by the threat of global warming and climate change. It is necessary to cherish existing resources and prevent the crisis of energy exhaustion in order to maintain a sustainable environment. Optimized adjustment, source reduction and reducing water, electricity, energy, and key chemical raw materials have always been one of Nuvoton's most important environmental strategies. Reduced usage can decrease the impact on the environment and also cut cost, achieving a win-win situation of environmental protection and economic benefit.

## Energy Conservation

Nuvoton mainly draws its energy from purchased electricity, followed by natural gas and a small amount of diesel fuel and gasoline. Taiwan's energy supply sources are mainly from oil, coal, natural gas, nuclear power, and hydropower. Other energy sources such as solar energy, wind energy, geothermal energy, and biomass energy are still the minority. Thus, the majority of Taiwan's energy supply structure and power generation structure are high carbon types, which cannot be replenished after they are mined. Furthermore, pollution generated by the burning of fossil fuels will not only affect the environment, but also destroy the complex regulatory mechanisms of nature, causing climate anomalies. Thus, energy conservation should be a goal for every corporation.

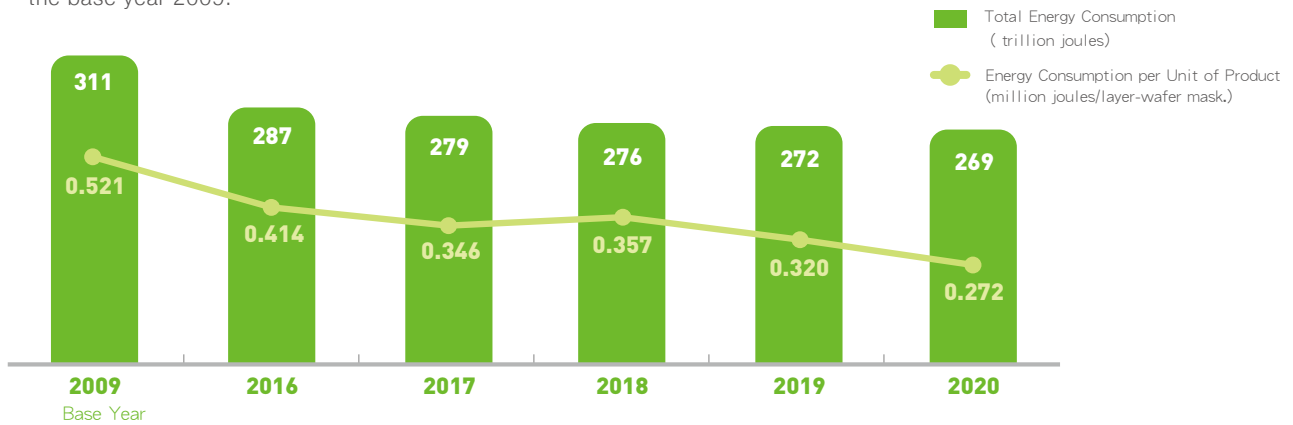
### » Energy Consumption

Nuvoton's energy consumption in 2020 was mainly electricity, which accounted for approximately 96.9% of total energy consumption; gas (natural gas and liquefied petroleum gas) accounted for approximately 3.0% and fuel (diesel and car gasoline) accounted for less than 0.1%.

### » Energy Intensity

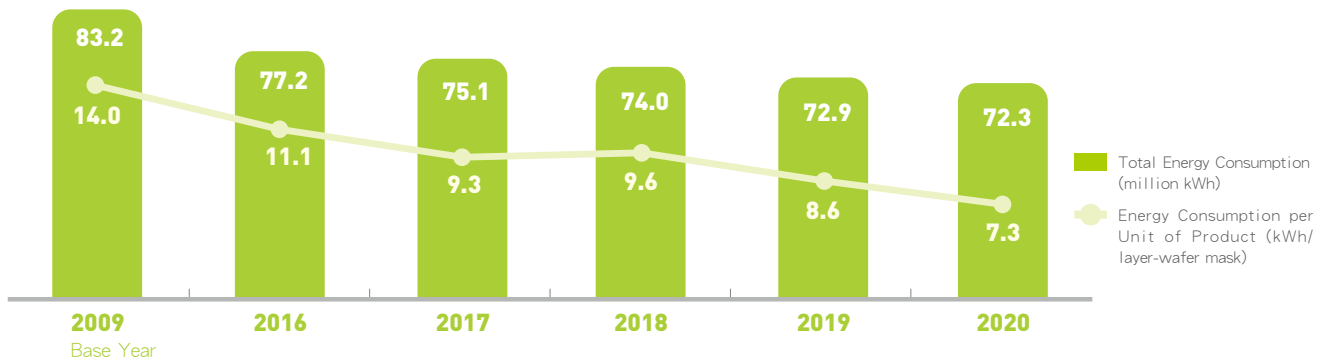
- Energy Consumption Statistics

Nuvoton's total energy consumption in 2020 amounted to 269 trillion joules, and energy consumption per unit of product amounted to 27.2 million joules/layer-wafer mask. Total electricity consumption in 2020 decreased by 13.1% compared to the base year 2009.



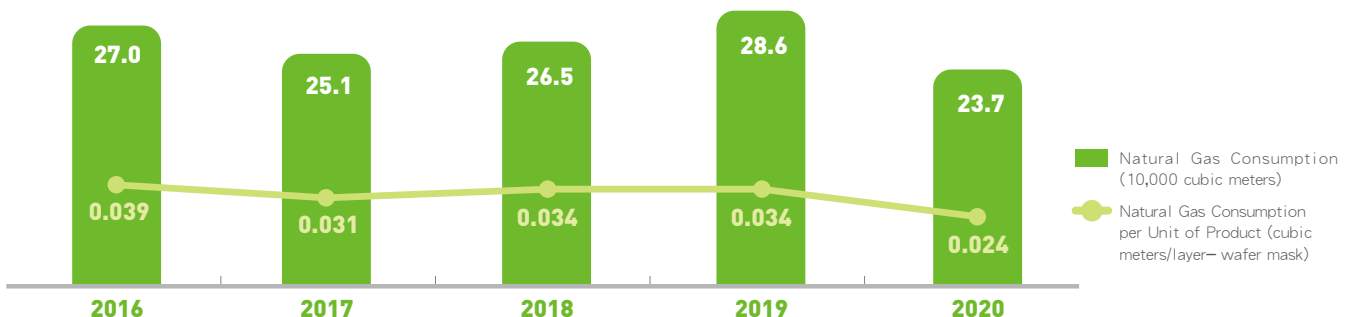
- Electricity Consumption Statistics:

Nuvoton's total electricity consumption in 2020 amounted to 72.3 million kWh, and energy consumption per unit of product amounted to 7.3 kWh/layer-wafer mask.



- Natural Gas Consumption Statistics:

Nuvoton has been using natural gas since 2011. The kitchen began to use natural gas in April 2013. Natural gas consumption in 2020 amounted to 23.7 thousand cubic meters; natural gas consumption per unit of product amounted to 0.024 cubic meters/layer-wafer mask.



## » Energy Conservation Measures

Nuvoton's main energy conservation policy is to reduce the demand for energy, reduce energy consumption, and improve operating efficiency. For our main methods of saving electricity, we have implemented temperature and humidity optimization control range to reduce electricity consumption in our semiconductor foundry, testing facilities, finished products, and raw material warehouses, all of which use a larger proportion of electricity consumption. In our offices and laboratories, we have promoted energy-saving habits such as turning off the lights, air conditioning, and machines when getting off work. For natural gas usage, we implemented optimized combustion of organic waste exhaust, and also recycle waste to reduce the overall use of natural gas. To improve power efficiency, we added refrigerant polarizers to the water-cooled chillers, set up an exhaust windmill frequency converter, added cooling ducts to the cooling tower, and adjusted the electric boiler to an optimized pressure to avoid excessive heating and enhance power efficiency. In our office areas, we adjusted the ice water pressure and the minimum temperature of air conditioning to avoid setting the temperature too low. We have also adjusted lighting configurations and have been gradually replacing lights with LED lighting. We are also planning to replace the high-consumption air-cooled and water-cooled chillers. In 2019, we completed replacing the second set of water-cooled chillers, and we installed variable-frequency drive (VFD) and variable flow control in the ice water system to improve energy efficiency. For process equipment, we installed variable-frequency drive (VFD) controllers on the pumps with lower operating frequency to reduce power consumption during standby.

Nuvoton implemented a total of 2 energy conservation measures in 2020. By using the before and after difference and multiplying it to the estimated running hours, an estimated 200,000 kWh were saved in electricity consumption.

### 2020 Energy Conservation Measures

- » Air compressor rotor replacements improve gas production efficiency
- » Continue to replace lights with LED lights

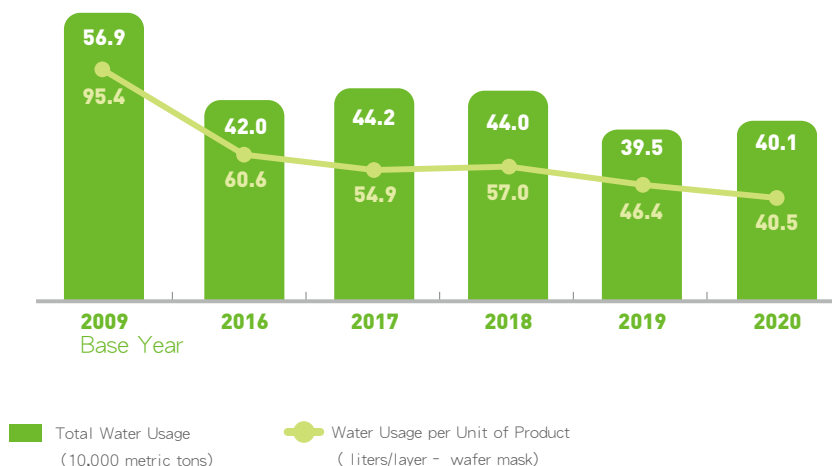
## Water Conservation

Precipitation patterns have changed drastically in recent years due to climate change. Thus, the issue of water scarcity has begun to receive international attention. The manufacturing processes in the semiconductor industry require a lot of water. Nuvoton uses the tap water provided by a water company. Furthermore, Nuvoton also recycles a small amount of rain and air conditioning condensate to use as a secondary water source. Our two main water conservation strategies are to prioritize source reduction and increase back-end recycling utilization to reduce the consumption of water resources.

We have optimized the process water flow rate, adjusted the frequency of water changes, extended the backwash frequency of the water purification system, installed water conservation facilities for domestic water supply, and adjusted the gardening irrigation frequency to reduce water consumption. We gather and utilize various facilities to process wastewater in accordance with water quality classifications. We recycle water with high degrees of purity, optimally processing and recycling the water for process use. In addition, we have also set up an air conditioning condensate and rainwater collection and recycling system for secondary water usage.

## » Tap Water Usage

Nuvoton's total tap water usage in 2020 was approximately 401,000 metric tons. Water usage per unit of product was approximately 40.5 liters/layer- wafer mask.



## » Water Recovery Rate and Total Amount

Nuvoton's plant is an old plant built before 1994. Our total plant's water recovery rate is much higher than the "Hsinchu Science and Industrial Park's Construction Time Corresponding Recovery Rate Standard". Although we have encountered difficulties such as modifying the pipelines in our old plant and having no space to set up a recycling facility, we still continue to make efforts towards improvement.

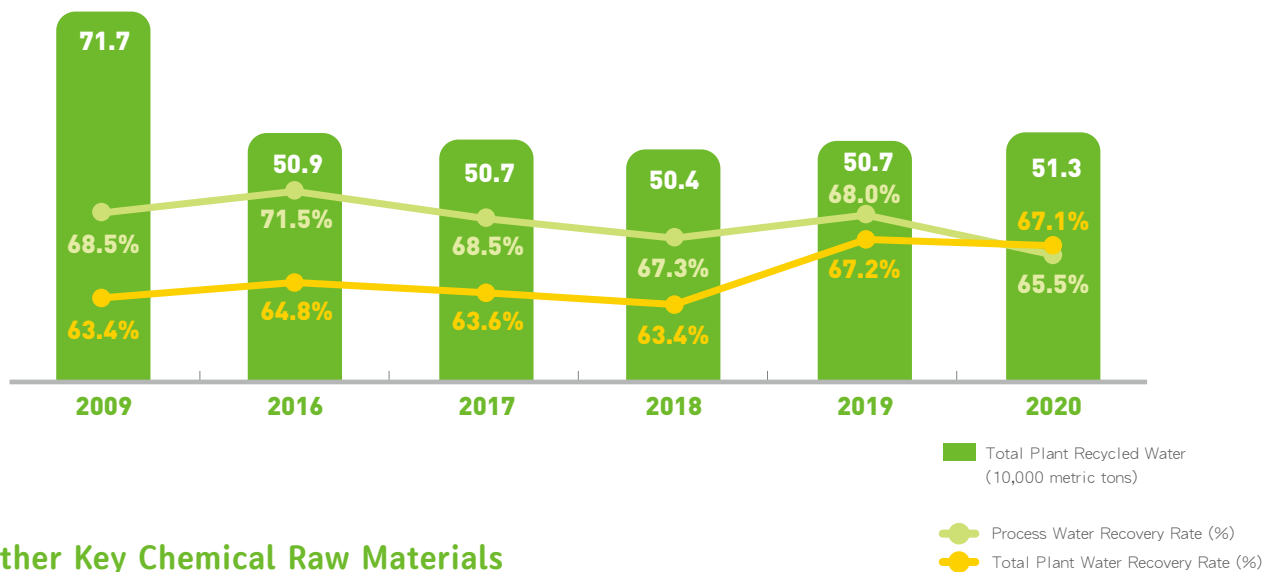
### • Nuvoton's 2020 Water Recovery Rate

	2020	Recovery Rate Standard
Process Water Recovery Rate	65.5%	>50%
Total Plant Water Recovery Rate	67.1%	>30%

Note: The water recovery rate standard is in accordance with the "plants built before 1994" standard as stipulated in the "Hsinchu Science and Industrial Park's Construction Time Corresponding Recovery Rate Standard".

### • Water Recovery Rate and Total Amount

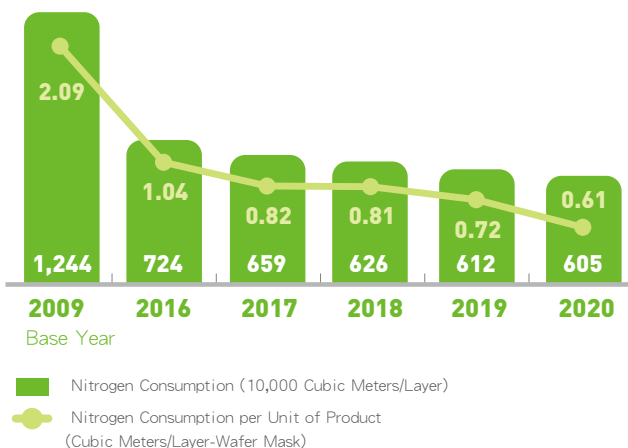
Nuvoton's recycled process water in 2020 was 428,000 metric tons, and the process water rate was 65.5%; the total plant recycled water was 513,000 metric tons, and the total plant water recovery rate was 67.1%.



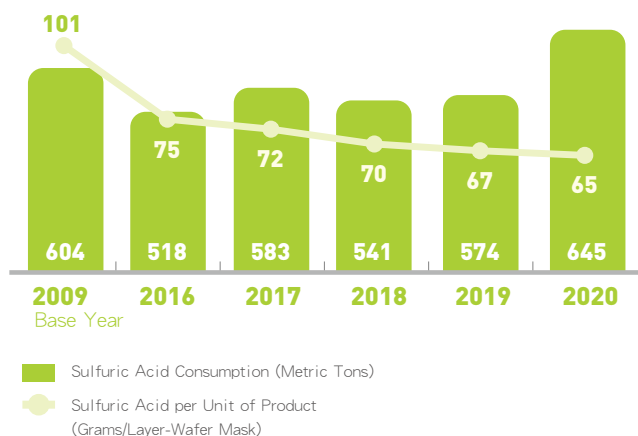
## Other Key Chemical Raw Materials

According to the result of Nuvoton's 2009 carbon footprint inventory, we discovered that supplier usage of nitrogen and sulfuric acid has significant impact on the carbon emissions during the overall product life cycles. This part belongs to scope three - indirect emissions. We list these two chemical raw materials as the main targets for long-term monitoring and mitigation, and set 2009 as the base year to actively promote reduction. The successful results of our efforts can be seen when compared to the base year. The nitrogen consumption per unit of product in 2020 amounted to 0.61 cubic meters/layer-wafer mask; the amount has decreased by 70.7% compared to the base year 2009. The sulfuric acid consumption per unit of product in 2019 amounted to 65 gram/layer-wafer mask. The amount has decreased by 35.6% compared to the base year 2009.

### • Nitrogen Consumption



### • Sulfuric Acid Consumption







## Pollution Prevention

### 2020 Waste Water and Waste Management Policies

<b>Importance</b>	<p>Environmental pollution issues are no longer confined to specific locales due to the spreading of pollutants through the atmosphere, water, and the importing/exporting of goods. Therefore, major global environmental issues including acid rain, ozone depletion, global warming, air pollution, water/marine pollution, and transboundary movement of hazardous wastes now either directly or indirectly impact all countries. Due to domestic regulations and the increasing importance of international conventions related to environmental protection, pollution prevention has become an important part of the company's production process.</p>
<b>Policies/Commitments</b>	<p>Compliance with relevant government and international regulations and committing to the continuous reduction of pollutant emissions.</p>
<b>Goals</b>	<p>Reduce emissions of major pollutants and reduce the environmental impact of emissions.</p>
<b>Promotion Priorities and Practices</b>	<p>The optimization of production processes and the reduction of material are utilized to reduce the production of pollutants. Fumes and waste water are discharged only after processing by pollution prevention and control facilities in adherence to regulation standards. Waste material is preferentially treated and reused to reduce environmental impact. Stringent management of air pollutants released, recovery and reuse of wastewater, recycling of waste material and reduction of waste allow for the continuous development of environment friendly processes.</p>
<b>Performance Results</b>	<p>According to the statistics from the base year 2017 to 2020, the amount of photoresist per unit of product has been greatly reduced from 12.6 to 7.66 g/layer-wafer mask. Unit consumption decreased by 39%, with a total reduction of 111 metric tons of raw materials. The amount of photoresist strippers per unit of product has also been greatly reduced from 17.1 to 8.23 g/layer-wafer mask. Unit production volume was reduced by 52% with a total reduction of 209 metric tons of waste liquid. In 2020, Nuvoton was awarded the Outstanding Enterprise Award for Waste Reduction and Circular Economy (B Category Excellence) by Hsinchu Science Park.</p>

### Environmental Law Compliance and Grievance Channels

Nuvoton has no records of penalties or other dispositions for violating environmental laws and regulations nor had any instances of oil/fuel/waste/chemical material leakage in 2020. We stringently practice and comply with environmental laws and regulations. Every six months, we conduct a regular review of the relevant laws and regulations to confirm that the company complies with the existing laws. In response to the frequent changes in the Taiwan's environmental laws and regulations, we regularly collect new or revised environmental regulations each month for assessment. This is to avoid accidental noncompliance due to changes in laws.

Nuvoton has set up a contact email in the corporate social responsibility area of the company's webpage. Stakeholders interested in our environmental issues can email or call us to raise any issues, provide comments or file complaints on environmental related issues. There have been no grievance cases in 2020.

## Air Pollution Control

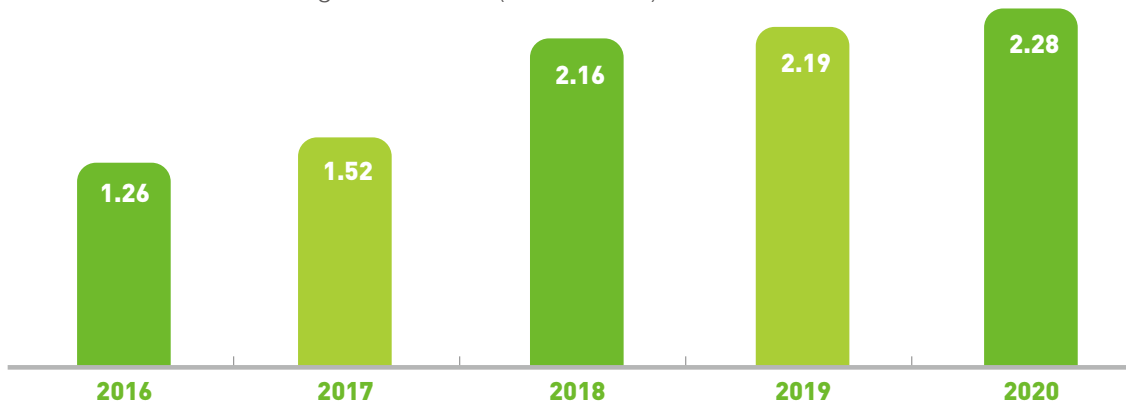
Air pollutants generated during Nuvoton's production processes include volatile organic compounds (VOCS), nitrogen oxides, sulfur oxides, ammonia, chlorine, hydrochloric acid, nitric acid, and phosphoric acids. Our air pollution treatment strategy is comprised of source control, utilizing optimized process dosage to reduce the generation of air pollutants. Parts of generated exhaust streams are processed using a local scrubber system for first stage high concentration effective treatment, then according to the exhaust gas classifications, sealed and collected for processing in a central scrubber system for second stage terminal treatment. In addition to stringent monitoring within the factory, certified 3rd party laboratories are also commissioned for further testing annually, all test results are reported to competent authorities. Items tested include non-methane hydrocarbons (NMHC), acid and alkali gases including sulfuric acid (H<sub>2</sub>SO<sub>4</sub>), hydrochloric acid (HCl), nitric acid (HNO<sub>3</sub>), hydrofluoric acid (HF), phosphoric acid (H<sub>3</sub>PO<sub>4</sub>), chlorine (Cl<sub>2</sub>), ammonia (NH<sub>3</sub>), and etc. The pollutant concentration levels found during past annual tests for exhaust produced by Nuvoton have all been vastly lower than those prescribed by emission standards.

Nuvoton's air pollutant treatment system operates 24 hours a day, 365 days a year. System monitoring and processing are conducted continuously to maintain normal operation. Exhaust gases are processed separately in accordance to their characteristics:

(1) The flammable, poisonous and FCs gasses are specially treated on the processing equipment end through scrubbing systems, absorption, electrothermal methods, or on-site washing facilities to reduce hazards. Exhaust gasses are then discharged to the central waste washing tower for processing further processing according to their PH levels.

(2) Exhaust gas containing volatile organic compounds are first absorbed using disk-type rotor s before being discharged to incinerators. High-boiling point organic waste gas are condensed, collected, and processed through temperature difference. Tested every year, the emission per year are all less than 0.6 kg/hr. The total emissions of volatile organic compounds continuously monitored in 2020 amounted to 2.28 metric tons.

### • Total Emissions of Volatile Organic Gasses (Metric Tons)



In addition, NO<sub>x</sub> and SO<sub>x</sub> emissions are estimated in accordance with the Environmental Protection Administration's emissions coefficient. Nuvoton's NO<sub>x</sub> and SO<sub>x</sub> emissions in 2020 amounted to 3.032 and 1.428 metric tons, respectively.



## Water Pollution Control

The wastewater produced by Nuvoton is primarily comprised of process and domestic wastewater. The source of wastewater from process operations can be roughly divided into processes such as cleansing, film formation, etching, development, and diffusion. The wastewater is divided into acid-base wastewater, fluorine-containing wastewater and grinding wastewater. According to their characteristics, either acid-base neutralization is conducted or calcium chloride is added to fluorine-containing wastewater. Afterwards, coagulation sedimentation and other related treatment technologies are collocated to comply with park management standards before being discharged to Hsinchu Science and Industrial Park's sewage treatment plant for processing. Then, through specialized pipes, the wastewater is discharged into Keya Creek. Domestic wastewater is discharged directly through the sewers to the park's sewage treatment plant.

The total wastewater of the entire foundry in 2020 was 297,868 tons. Discharged water quality meets the requirements of the "Discharged Water Quality Standards in Hsinchu Science and Industrial Park Sewerage". Wastewater generated per production unit was 0.030 (tons)/layer - wafer mask.



Two water quality tests are performed every year according to the "Water Pollution Control Measures and Test Reporting Management Regulations". The tests are conducted in the first half of the year and second half of the year, respectively. The results of the tests in 2020 were in line with water quality standards for Hsinchu Science Park.

2020 Item	Management Standard	First Half of the Year	Second Half of the Year - Test Result
Temperature	38	28.1	28.4
pH	5~9	6.7	6.6
Suspended particles(mg/L)	300	10.8	10.8
COD (mg/L)	500	88.1	64.2
BOD (mg/L)	NA	NA	NA
Fluoride (mg/L)	15	4.4	4.9
Ammonia Nitrogen (mg/L)	50	15.8	11.8
Nitrate Nitrogen (mg/L)	50	0.7	0.8
Anion Interface Active Agent (mg/L)	10	0.05	ND
Cadmium (mg/L)	0.02	ND	-
Total Chromium (mg/L)	1.5	ND	0.006
Nickel (mg/L)	0.7	ND	ND
Lead (mg/L)	0.5	ND	-
Arsenic (mg/L)	0.35	0.009	0.01
Mercury (mg/L)	0.005	ND	-
Copper (mg/L)	1	ND	ND
Hexavalent Chromium (mg/L)	0.35	ND	-
Cyanide (mg/L)	1	ND	-
Zinc (mg/L)	3.5	0.025	0.024
Boron (mg/L)	1	0.316	0.236
Molybdenum (mg/L)	1.2	ND	-
Tin (mg/L)	2	ND	-

Note 1: Note: Levels of "cadmium, chromium, lead, nickel, mercury, hexavalent chromium, cyanide and arsenic" were lower than the minimum detection limits of detection methods used, application for exemption from testing for these items was approved by the Hsinchu Bureau of Environmental Protection in the second half of 2020.

Note 2: ND was less than the laboratory's detection limit





The Discharged Water Quality Standards in Hsinchu Science and Industrial Park Sewerage implemented the third phase of ammonia nitrogen emission standards in 2017. The third phase of changes reduced the regulatory limit for ammonia nitrogen emission from 75mg/L to 50mg/L. Therefore, ammonia nitrogen monitoring equipment was added for the monitoring of ammonia nitrogen levels in discharge water. Utilizing newly added equipment, we developed an optimized process for reduction management measures to meet the improved standards described above. In 2019, molybdenum and tin were added to the water quality test items, and our 2020 test results met the management standards.

## Waste Management

Nuvoton's waste management strategy is to minimize waste treatment and maximize waste resource recycling. Nuvoton implements source management classification and reduction, reducing the amount of waste generated per unit product while increasing waste resource recycling. With the continuous promotion of source reduction programs, such as extending material usage time, optimizing production operations, packaging material recycling, etc., Nuvoton works hard to continuously reduce the waste treatment volume per unit of product. In 2020, Nuvoton participated in the selection for the Outstanding Enterprise Award for Waste Reduction and Circular Economy held by Hsinchu Science Park. In manifesting the company's measures and performance for waste reduction, Nuvoton received the B Category Excellence award. Waste disposal methods prioritize direct recycling and reuse, reducing incineration and burial methods that cause relatively high environmental impacts to maximize the benefits of sustainable waste utilization.



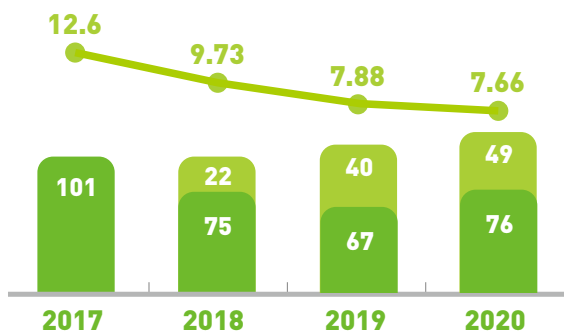
- Focus case of waste reduction: reduction of photoresist raw materials and waste liquid

Nuvoton's photoresist waste liquid ranks second in terms of waste generation. Since 2014, due to market elimination in the photoresist stripper market, no suitable vendors were available for the recycling and reuse of affected materials, so we switched from physical treatment to incineration treatment. In 2018, we started improving equipment and optimizing operating conditions to promote source reduction of photoresist raw materials and the reduction of waste liquid, reducing the consumption of photoresist raw materials and the output of waste liquid. We established the best acid replenishment level, increased the tightness covers to reduce evaporation, installed a guide angle on the cover to collect condensation to reduce the amount of waste liquid dripping, adjusted the washing water flow rate, and install a partition. Comparing with the base year 2017 for results, the amount of photoresist removal per unit product has been greatly reduced from 12.6 to 7.66 g/layer-wafer mask, and unit consumption has been reduced by 39%. Total reduction of raw materials amounted to 111 metric tons. The amount of waste liquid for photoresist strippers per unit of product has been greatly reduced from 17.1 to 8.23 g/layer-wafer mask, and unit production has been reduced by 52%. Total reduction amounted to 209 metric tons of waste liquid.



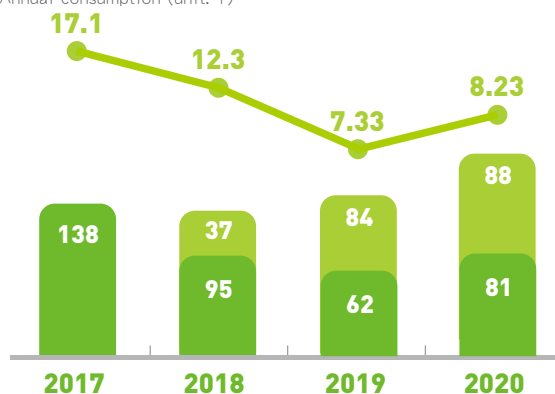
• Backprojection of Annual Production Capacity -The Amount of Raw Materials for Photoresist Strippers (Base Year 2017)

Annual consumption (unit: T)



• Backprojection of Annual Production Capacity -The Amount of Raw Materials for Photoresist Stripper Waste Liquid (Base Year 2017)

Annual consumption (unit: T)



■ Actual annual consumption of raw materials  
 ■ Annual reduction of raw materials  
 ● Unit wafer raw material consumption  
 ■ Actual annual consumption of waste liquid  
 ■ Annual reduction of waste liquid  
 ● Unit wafer waste liquid production

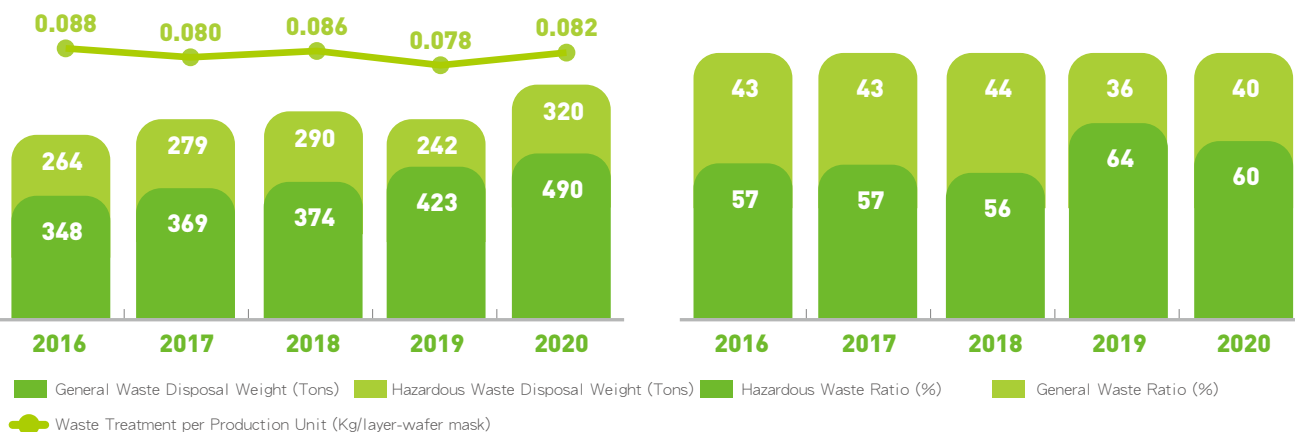
In-plant audits are carried out in accordance with our autonomous management mechanism to ensure waste management within the plant. This allows for complete and comprehensive management of production sources and on-site processes. These measures have further helped to improve production processes resulting in cleaner production and waste reduction as well as ensuring regulatory compliance. We carefully select legal waste cleaning and recycling companies licensed by the government to properly dispose of waste. Each year, the severity of the environmental impact risk and the probability of handling risk are evaluated based on the harmfulness, amount of waste generated, and the results of their previous audit score. Then, according to the severity and probability risk matrix and the requirements of the regulations to visit the waste project at least once a year, a different audit frequency is scheduled every 1 to 3 years. Then, according to the assessment needs of new manufacturers, we draft an annual waste manufacturer audit plan. Inspection items include auditing the manufacturer removal operations, treatment/reuse plant processing and storage, and regular declarations and documents. Then, we immediately track GPS data to ensure proper waste disposal and to fulfill the responsibility of waste production. In 2020, a total of 17 audits were conducted on removal services providers and waste management treatment plants to confirm legal compliance. There were no vendors that have been suspended of cooperation due to violations of laws or related regulations.

		Probability Level			
		1	2	3	4
Severity Level	1	3 years	2 years	1 year	1 year
	2	2 years	1 year	1 year	1 year
	3	1 year	1 year	1 year	Half-year
	4	1 year	1 year	Half-year	Quarterly

• Nuvoton inspects waste projects at least once a year. The frequencies of waste manufacturer audits are based on the severity and probability risk matrix and regulations to effectively control waste disposal risks.

» Production of Waste

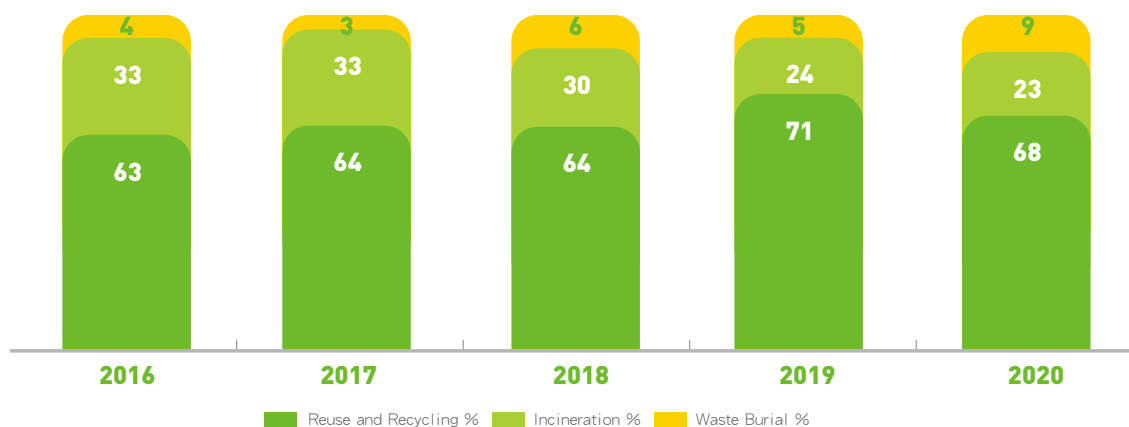
The waste generated by Nuvoton can be divided into general business waste (includes recycled waste and domestic waste generated by offices) and hazardous business waste. According to statistics, Nuvoton's total waste treatment volume in 2020 amounted to approximately 810 metric tons, of which general waste accounted for approximately 320 metric tons (40%) and hazardous waste accounted for approximately 490 metric tons (60%); waste generated per unit of product amounted to 0.082 kilograms/layer – wafer mask. Compared with 2019, waste increased in 2020. The use of raw materials increased due to the demand for production capacity, which led to an increase in the amount of waste generated.



Environmental Management | Cherishing Resources | Pollution Prevention | Greenhouse Gas Management | Green Product

## » Waste Disposal Methods Statistics

Nuvoton does not carry out waste input and output, and our waste treatment prioritizes reuse. The following table shows the types and applications of reuse. Waste that currently cannot be reused are incinerated and buried. In 2020, 68% of waste produced by Nuvoton was reused (recycled waste included), 24% of waste was incinerated, and 9% was buried. The ratio of waste to landfill in 2020 has increased compared to 2019 due to the increase in waste generated from non-routine projects.



### • Nuvoton's Waste Reuse / Recycling Treatment Description

Waste Sulfuric Acid	Manufacturers recycle and dilute recycled waste into industrial grade dilute sulfuric acid for industrial use (not used for drinking water treatment, medicine, or fertilizer additives)
Waste Hydrofluoric Acid	Vendors recycle processed industrial sodium fluorocarbonate raw materials and apply them for solubilizers
Waste Isopropanol	Vendors recycle and distil into industrial-grade isopropanol
Waste NMP	NMP Vendors recycle and distil into industrial-grade NMP
Emptied Chemical Waste Barrels	Emptied chemical waste barrels are either washed and reused, or crushed and made into plastic or glass materials
Waste Photomasks	After the vendor removes all patterns, waste photomasks are either made into new ones or optical materials
Waste Mixed Metal Scraps	Vendor processes the scraps, and recycles the metal
Fluorescent Lights	Vendor processes the lights, then recycles any metals, non-metals, glass, etc
Waste Mercury	Vendor uses mercury vaporization equipment to process the mercury and vaporize it for reuse
Recycling Waste	Waste paper, glass, aluminum scraps, styrofoam scraps, aluminum foil bags, plastic bottles, plastic waste, etc. are reused by recycling vendors

### • Waste Disposal Method Amount/Rate of the Entire Company:

Waste Category	Disposal method	2016		2017		2018		2019		2020	
		Total Amount	Ratio	Total Amount	Ratio	Total Amount	Ratio	Total Amount	Ratio	Total Amount	Ratio
General Waste	Incineration	182	30	201	31	182	27	138	21	170	21
	Waste Burial	27	4	17	3	35	5	31	5	70	9
	Reuse (Includes Recycle)	54	9	61	9	74	11	73	11	80	10
Hazardous Waste	Incineration	17	3	15	2	17	3	20	3	22	2
	Solidified	0	0	1	0	1	0	2	0	1	0
	Reused	332	54	353	55	354	53	401	60	467	58

Units: Total Amount (Tons); Ratio: (%)

# Greenhouse Gas Management

## 2020 Greenhouse Gas Management Policy

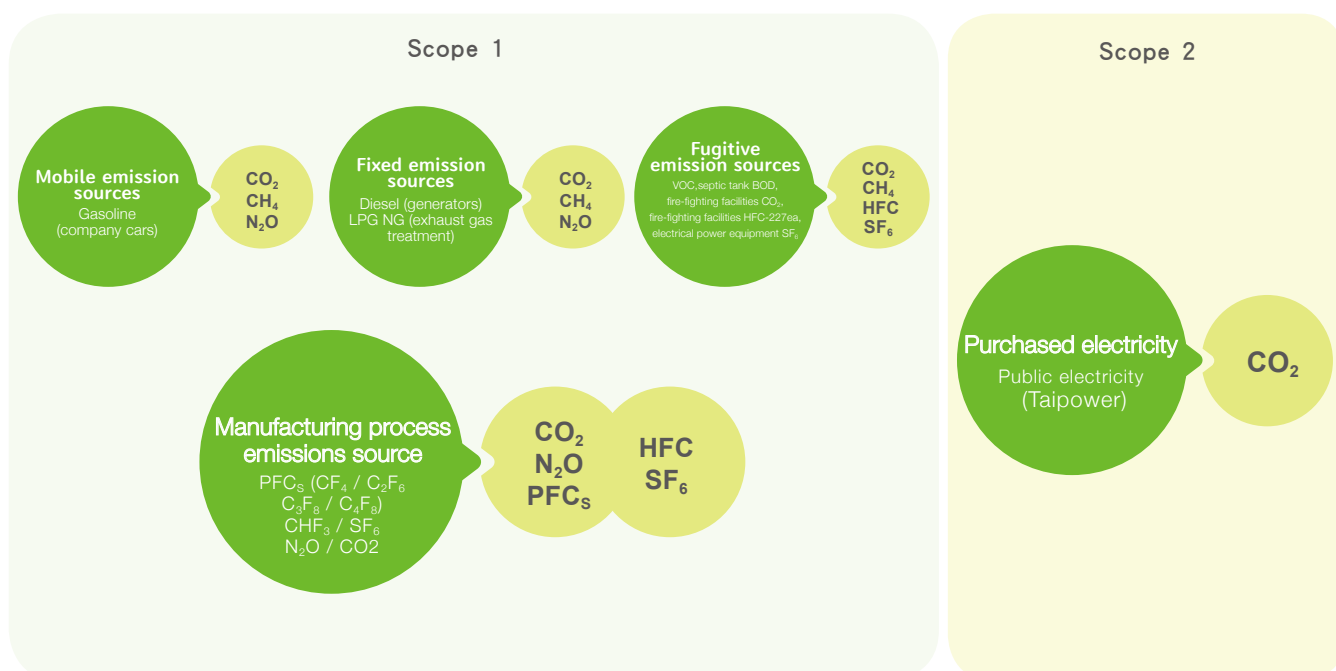
<b>Importance</b>	In response to global climate change concerns and international carbon cutting trends, a "Greenhouse Gas Reduction and Management Act" was announced domestically in 2015 to meet client concerns and increase competitiveness by reducing the emission of greenhouse gases.
<b>Policies / Commitments</b>	Commitment to continuous improvement and reduction of greenhouse gas emissions during production processes.
<b>Goals</b>	Greenhouse emissions generated per production unit (kilograms carbon dioxide equivalent / square centimeters - wafer mask) in 2030 decreased by 30% in comparison to 2009. Total greenhouse gas emissions (metric tons of carbon dioxide equivalent) in 2020 have been reduced by 5% compared to the base year 2009.
<b>Promotion Priorities and Practices</b>	Establish greenhouse gas emission inventory policies, focus on the reduction of major emission sources such as fuel, SF <sub>6</sub> and FCs.
<b>Performance Results</b>	In 2020, greenhouse gas emissions generated per production unit was 0.707 kilograms carbon dioxide equivalent/ square centimeters - wafer mask, a 9.3% decrease from 2019, and a 43.7% decrease from the base year 2009. The total greenhouse gas emissions in 2020 were 72,971 metric tons of carbon dioxide equivalent. This is an increase of 6.9% compared to 2019, and a decrease of 9.3% compared to the base year 2009.

Due to the rise in surface temperatures, climate change has directly affected the manufacturing and operation of the manufacturing industry in recent years, causing flooding, water interruption, power supply shortage, increased raw material costs, and other such problems. The Paris Climate Conference (COP21) was held in 2015 to reduce greenhouse gas emissions, mitigate climate change, and improve the adaptability to climate change. Thus, reducing greenhouse gas emissions is an important issue for the sustainable development of enterprises. Through greenhouse gas inventory, Nuvoton examines the main sources of greenhouse gas emissions to actively implement mitigation and adaptation actions. Nuvoton's greenhouse gas management strategy consists of first conducting greenhouse gas inventory and registration in accordance with the Environmental Protection Administration's regulations. Then, through inventory checks to understand the main sources of emissions, Nuvoton actively takes relevant mitigation and adaptation actions.

## Greenhouse Gas Inventory

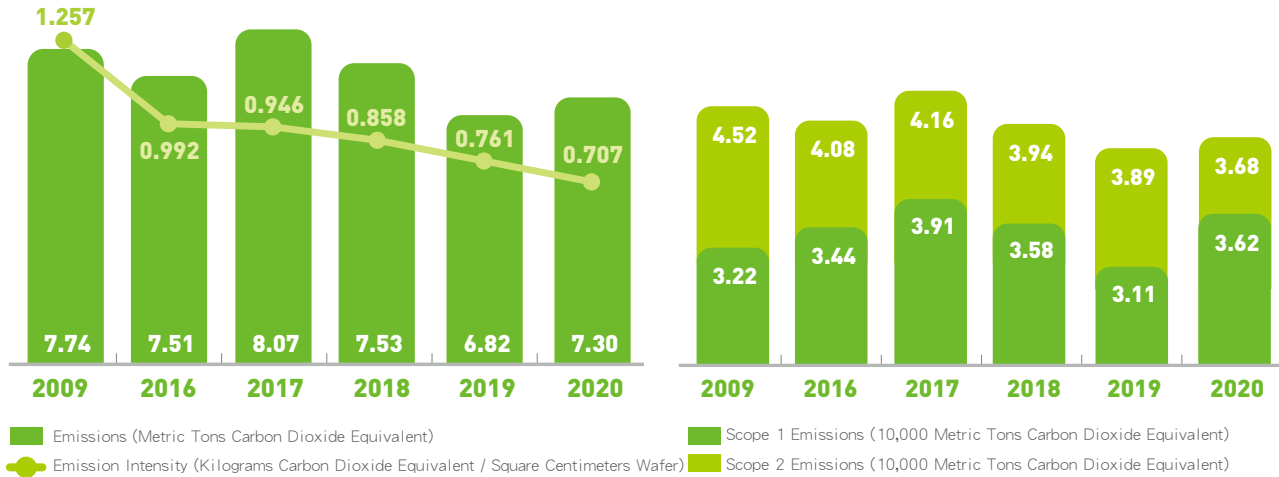
In order to grasp the status of the company's greenhouse gas-related activities and develop reduction targets and priorities, in 2009 Nuvoton established a greenhouse gas inventory mechanism in accordance with ISO14064-1 and the Environmental Protection Administration's Greenhouse Gas Emissions Inspection and Registration Guidelines. Nuvoton conducts annual inventory of greenhouse gas emissions in the plant area, setting 2009 as the base year for greenhouse gas emissions. The content of the examination includes Scope 1 – "Direct greenhouse gas emissions"; Scope 2 – "Indirect greenhouse gas emissions from energy use", which does not include Scope 3 – "Indirect greenhouse gas emissions". Since 2009, the data from Nuvoton's greenhouse gas inventories have always passed inspections and obtained verification statements by third-party verification agencies based on ISO14064-1 standards.

### • Greenhouse Gas Emission Categories



## » Greenhouse Gas Emissions Inventory Results

Since 2009, Nuvoton's greenhouse gas emissions inventory results have been checked by DNV GL Business Assurance. In 2020, the inventory results for greenhouse gas emissions was 72,971 tons, which compared with the 68,247 tons of greenhouse gas emissions in 2019 is an increase of 6.9%, and a decrease of 5.7% compared with 2009. Greenhouse gas emissions per unit of product was 0.707 kilograms carbon dioxide equivalent/square centimeters - wafer mask, a decrease of 7.1% from 2019, and a decrease of 43.7% from the base year 2009.



Note: 2020 Scope 2 is calculated based on the 2019 electricity coefficient.

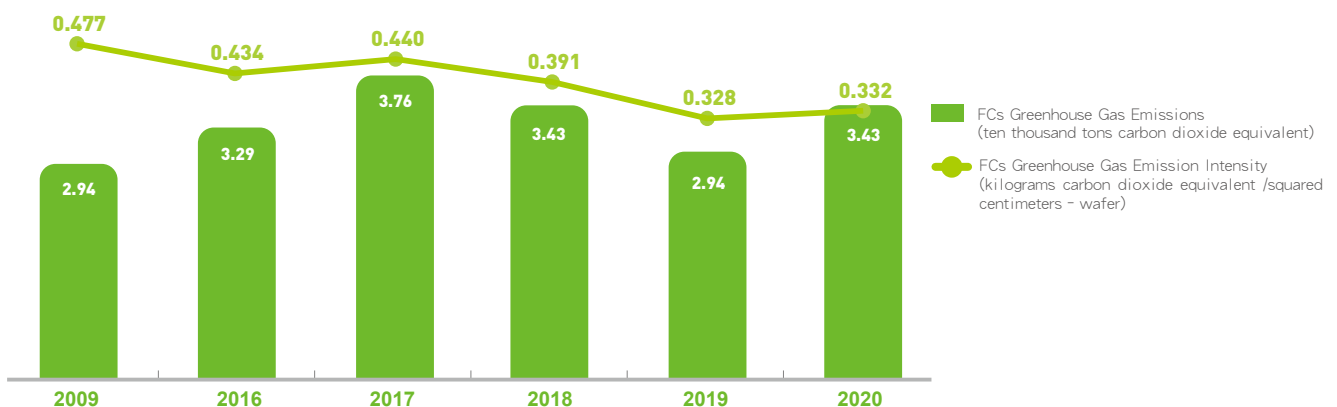
Note: 2020 Scope 2 is calculated based on the 2019 electricity coefficient.

## Greenhouse Gas Reduction

The results of the inventory reveal that the majority of emissions are generated from electrical consumption, followed by the FCs fluorinated greenhouse gasses used in the manufacturing process, such as tetrafluoromethane (CF<sub>4</sub>), hexafluoroethane (C<sub>2</sub>F<sub>6</sub>), sulfur hexafluoride (SF<sub>6</sub>), fluorofrom (CHF<sub>3</sub>), octafluoropropane (C<sub>3</sub>F<sub>8</sub>), and octafluorocyclobutane (C<sub>4</sub>F<sub>8</sub>). These two items account for more than 90% of our total emissions. Nuvoton's greenhouse gas reduction measures include setting annual energy efficiency targets to enhance electricity efficiency and reduce carbon emissions, as well as conceiving clean manufacturing for specific production. Electricity reduction measures have been described in section 6.2.1 above. Calculated based on the 2019 power coefficient, greenhouse gas emissions were reduced by approximately 104 tons of carbon dioxide equivalent. To reduce the FCs used in manufacturing, we mainly utilized gas replacements in the beginning. We use the greenhouse gas, C<sub>3</sub>F<sub>8</sub>, which has a lower Global Warming Potential (GWP), to replace CF<sub>4</sub> and C<sub>2</sub>F<sub>6</sub> used in thin film processing to reduce the equivalent carbon dioxide emissions of FCs. In 2019, we replaced C<sub>3</sub>F<sub>8</sub> with C<sub>4</sub>F<sub>8</sub> in the thin film process, which has a lower greenhouse Global Warming Potentia (GWP).

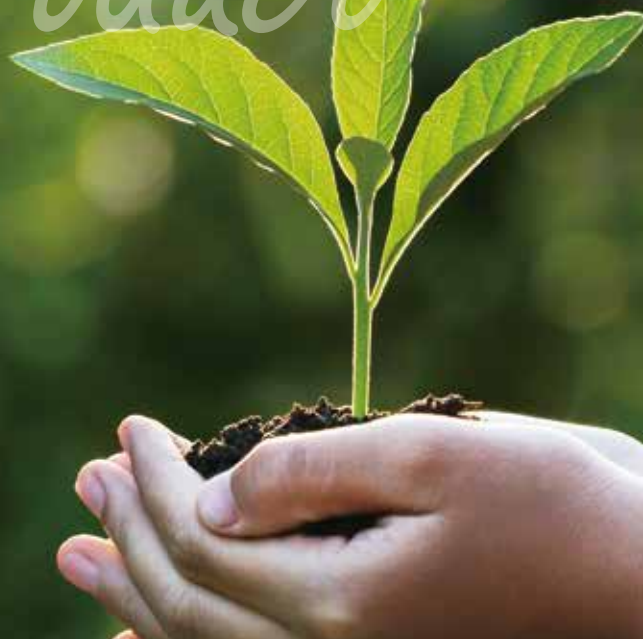
## » Process FCs Carbon Dioxide Equivalent Emission and Intensity

According to the inventory results, the process-used FCs greenhouse gas emission intensity has shown a trend of increasing since 2015. The main reason for this is due to changes in product combinations and the development of new processes. Nuvoton strives to make adjustments and improvements from the manufacturing process according to the results of the inventory. In 2020, manufacturing related FCs greenhouse gas emissions amounted to the carbon dioxide equivalent of 34.3 thousand tons, and the emission intensity amounted to 0.332 kilograms/squared centimeters-wafer. The emission intensity has reduced by 30.3% compared to the 2009 base year, and increased by 1.2% compared to 2019.





# Green Product



## Green Products

### 2020 Green Product and Client Health and Safety Management Policy

#### Importance

In response to international environmental friendly trends and client needs, Nuvoton is committed to designing low-toxicity, low-carbon, and low-energy green products, increasing global competitiveness by meeting client needs for environmentally friendly products.

#### Policies / Commitments

Nuvoton strives to design, purchase, manufacture and sell products which do not contain harmful substances and are in compliance with international regulations to meet client needs. Nuvoton further believes in the fulfillment of their social and civic responsibility of environmental protection.

#### Goals

Products provided by Nuvoton are in 100% compliance with non-hazardous substances regulations and client requirements.

#### Promotion Priorities and Practices

Nuvoton established the hazardous substances management system, QC 080000, in 2008. It utilizes a systematic approach in coordinating all internal and external green product-related matters to assist sales, purchasing, research and development, and manufacturing in the phases of design, production, and shipping, effectively monitoring the management processes of environmental product development. Furthermore, we comply with international regulations and customer requirements for environmental assessments and imports. We establish and implement green directives and requirements of customers, promote green product continuous improvement projects, control harmful substances, and conduct green product audits to ensure the effectiveness of Nuvoton's green policies.

#### Performance Results

None of Nuvoton's products were involved with any illegal or non-compliance matters in 2020, meeting international regulations and customer requirements.

## Green Product Policies

In response to international environmental trends and customer needs, Nuvoton is committed to designing green products with low toxicity, low carbon, and low energy consumption, so as to enhance green competitiveness and grasp global business opportunities. These policies apply to all product-related activities of Nuvoton. From the company's internal design stage to external supplier sourcing and the manufacturing and transportation phases, Nuvoton promotes and implements the green concept to the overall value chain. Nuvoton conducts project planning, execution, inspection, and action in each phase using the PDCA management cycle to ensure that all phases meet policy specifications and goals. In addition, an important part of the policy is to make employees understand the importance of environmental protection. Through educational training and advocacy communication, we incorporate the green concept into our daily work.

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Nuvoton ensures that the products it designs, manufactures, and sells are able to meet or exceed the standards of international environmental regulations. Furthermore, Nuvoton requires upstream raw material suppliers and downstream packaging and testing firms to work together to reduce their various impacts on the environment and comply with the following international environmental regulations:

- The European Union's (EU) Restriction of Hazardous Substances Directive (RoHS 2.0, 2011/65/EU): Limits the amount of lead (<1,000ppm), cadmium (<100ppm), mercury (<1,000ppm), hexavalent chromium (<1,000ppm), polybrominated biphenyls (<1,000ppm), polybrominated diphenyl ethers (<1,000ppm), DEHP (<1,000ppm), BBP (<1,000ppm), DBP (<1,000ppm), and DIBP (<1,000ppm) in products.
- Halogen-free requirements for electronic products: In general, a halogen-free product by customer definitions means that the volumes of bromine and chlorine are each <900ppm, respectively, with total content <1,500ppm. All the products of Nuvoton comply with both requirements.
- EU's Registration, Evaluation, Authorization and Restriction of Chemicals (EU REACH): Regarding the hazardous substances and subsequent Substance of Very High Concern (SVHC) announced by EU Reach, all products of Nuvoton comply with the requirements of this regulation.
- Limits for perfluorooctane sulfonate (PROS): Nuvoton prohibits the use of raw materials which contain PFOS in the manufacturing process.

In addition to current international laws and customer requirements, Nuvoton will also continue to focus on potential regulatory requirements for the future, and proceed with all appropriate preparations. None of Nuvoton's products were involved with any illegal or non-compliance matters in 2020, meeting international regulations and customer requirements.



## Nuvoton's Hazardous Substances Management:

### ■ Declaring a Non-hazardous Substances Policy

Nuvoton focuses on designing, purchasing, manufacturing, and selling products with no hazardous substances to comply with international regulations and meet the needs of customers. Nuvoton also strives to protect the environment to fulfill its social responsibility.

### ■ Creating a List of Controlled Hazardous Substances

Nuvoton has created a list of controlled substances in accordance with international environmental regulations and customer needs, including banned substances, restricted substances, and declarable substances. The list is amended every year in accordance with current conditions.

### ■ New Material Evaluation System

To establish a new material evaluation process, it is necessary to confirm that the newly developed products and materials comply with Nuvoton's hazardous substance management procedures and environmental safety and health requirements.

### ■ Green Procurement and Supplier Management

Raw material suppliers and contract manufacturers must sign a "Certification of Non-use of Hazardous Substances", and be inspected by a third party every year or as needed to ensure that their products meet international environmental requirements.

### ■ IECQ QC 080000 Hazardous Substance Management System Certification

Nuvoton received the hazardous material management standards IECQ QC 080000 from the International Electrotechnical Commission (IEC), which was developed in accordance with its electronic components quality evaluation system. Nuvoton received the hazardous material management standards IECQ QC080000 from the International Electrotechnical Commission (IEC), which was developed in accordance with its electronic components quality evaluation system. Built on the ISO 9001 and ISO / TS 16949 management systems, it utilizes a "process-oriented" approach to reduce or eliminate harmful substances contained in the organization's products. In addition, it systematically manages hazardous substances to reduce or avoid the production of harmful substances. At the same time, it meets RoHS, REACH, WEEE, and other special customer needs. We completed the IECQ QC 080000: 2017 transition audit in 2019 to ensure the effective operation of our hazardous material management system.

### ■ SONY Green Partner Certification

Nuvoton has been a SONY-certified green business partner since 2009. Nuvoton still continues to pass the regular verification to date.

### ■ Detection of Hazardous Substances

In addition to managing factory materials and process raw materials through supplier sources, Nuvoton sample tests harmful substances in wafer and IC products every year. The tests are conducted by a fair third-party, measuring and monitoring raw materials and products that have an impact on the environment, as well as harmful and banned substances.







## Best Workplace

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- > Human Resources Structure
- > Talent Employment Practices
- > Salary and Benefits
- > Learning and Development
- > A LOHAS Work Culture
- > Employee Welfare Committee
- > Occupational Health and Safety
- > Health Management Promotion Program



## 2020 Talent Appointment and Educational Training Management Policies

<b>Importance</b>	Employees are the cornerstones of a company's development. Nuvoton places great importance in talent recruitment by having a comprehensive management system, providing competitive salaries and benefits as well as the best possible working environment to attract talented individuals. Nuvoton's comprehensive and diverse education and employee training system further allows employees to continue improving themselves after joining the company, which facilitates the sustainable development of the Company.
<b>Policies / Commitments</b>	For talent recruitment, Nuvoton fully complies with all relevant labor standards and regulations, as well as the Responsible Business Alliance (RBA) Code of Conduct for the recruitment of suitable talents into the Company. In regards to personnel training, Nuvoton recognizes the importance of employee learning and development, and makes available a large number of learning channels which utilize a diversity of learning methods as we strive to create a continuously improving learning culture.
<b>Goals</b>	Create an organization with a large amount of room for development as well as a friendly workplace environment to continue attracting talented individuals to Nuvoton.
<b>Promotion Priorities and Practices</b>	Encourage candidates to join Nuvoton by providing competitive salaries and benefits as well as a safe and comfortable working environment.
<b>Performance Results</b>	<ul style="list-style-type: none"> <li>» 0 labor disputes; discrimination free, no forced labor complaint incidents</li> <li>» In 2020, a total of 19,097 employees participated in the completion of 19,293 hours of employee training. Average training hours: 13.39 hours</li> </ul>

## Human Resources Structure

As of December 31, 2020, Nuvoton Technology had a total of 1,441 employees, comprised of 155 managerial, 890 professional, and 396 technical personnel. Amongst management personnel, there were 39 senior executives at the director level or higher. At the end of 2020, 44% of our total workforce was comprised of female personnel. The male to female ratio among managerial and professional personnel is approximately 3:1, which is consistent with the fact that the students majoring in engineering fields relevant to this industry in Taiwan are still mostly male, with the aforementioned ratio illustrating this phenomenon.

Category	Division	Male		Female		Subtotals and Proportions by Division	
		No.	In Proportion to the Division	No.	In Proportion to the Division	No.	In Proportion to Total Number of Employees
Position	Management	135	87%	20	13%	155	11%
	Professional	639	72%	251	28%	890	62%
	Technical	32	8%	364	92%	396	27%
Total						1,441	

Note: Subdivision managers and higher are considered management. Staff members are considered professional personnel, and engineer assistants (EA) are considered technical personnel.



Regarding age distribution, Nuvoton Technology abides by the regulations of the “Labor Standards Act”, and does not hire individuals under the ages of 15. Furthermore, we also do not hire underage people between the ages of 15 and 16. Employees between the ages of 16 and 40 account for 44% of our total workforce. In terms of academic qualifications, approximately 38% of employees have obtained a master’s degree or higher. For managerial and professional personnel, this percentage rises to 53%. Concerning the types of Nuvoton employees, except for fixed term contractors, 99% of our workforce comprises of staff and operators who are full-time employees. In order to establish a direct communication channel with our employees, Nuvoton holds regular labor-management meetings on a quarterly basis. Four labor-management meetings in total were held in 2020.

Category	Division	Male		Female		Subtotals and Proportions by Division		
		No.	In Proportion to Total Number of Employees	No.	Proportion to the Division	No.	In Proportion to Total Number of Employees	
Age	21~30	98	49%	102	51%	200	14%	
	31~40	272	62%	166	38%	438	30%	
	41~50	268	56%	207	44%	475	33%	
	51~60	163	50%	160	50%	323	22%	
	61~	5	100%	0	0%	5	1%	
Education	PhD	18	100%	0	0%	18	1%	
	Master’s	448	84%	87	16%	535	37%	
	Bachelor’s	196	41%	277	59%	473	33%	
	Vocational School	48	36%	87	64%	135	9%	
	Senior High School	12	5%	254	95%	266	18%	
	Below Senior High School	277	78%	196	22%	14	1%	
Employment Type	Employment Type	Staff	769	74%	270	26%	1,039	72%
		Operators	32	8%	364	92%	396	27%
	Part-time and Temporary Employees	Fixed-term Contract	5	83%	1	17%	6	0%

Note: The above human resources structure does not include 7 appointed consultants, nor the 42 outsourced catering, cleaning, security, maintenance, and information desk and information services

## Talent Employment Practices

Nuvoton Technology has always regarded employees as our most important asset, and strives to attract new applicants by providing competitive compensation and benefits, comprehensive education and training, and a comfortable and safe working environment. Nuvoton is in full compliance with the rules of the Labor Standards Act, and abides by the labor rights provisions of the EICC Code of Conduct. When hiring new employees, it does not employ people under the age of 15 or involuntary workers (such as those by coercion, mortgage, debt, indentured servitude, enslavement or human trafficking). Nuvoton further ensures that all employees enjoy equal rights without discrimination, and that the Company shall not unlawfully discriminate against any employees or prospective employees for reasons such as ethnicity or nationality, skin color, age, sex, sexual orientation, gender identity, disability, pregnancy, religion, political stance, corporate background, veteran status, protected genetic information, or marital status.

In 2020, no discrimination or forced labor complaints were filed against Nuvoton. Comparing new employee recruitment and hiring rates from 2019 and 2020, new employee recruitment increased 3.5% to 12.4%, while turnover rate remains at 8.8%. The majority of newly recruited employees are between the ages of 21 and 40. The ages of those leaving the company also generally follows a normal bell shaped distribution. Overall, Nuvoton's employee structure remains quite stable.

- 2020 Turnover and hiring rates by age group

Age Group (Note 1)	No. of New Employees (Note 2)		In Proportion to the Total No. of Employees (Note 3)		Turnover (Note 2)		In Proportion to the Total No. of Employees (Note 3)	
	Male	Female	Male	Female	Male	Female	Male	Female
18~20	0	0	0%	0%	0	0	0%	0%
21~30	52	40	57%	43%	34	20	63%	37%
31~40	39	28	58%	42%	31	15	67%	33%
41~50	10	3	77%	23%	17	5	77%	23%
51~60	4	1	80%	20%	2	0	100%	0%
61~	2	0	100%	0%	2	1	67%	33%
Sub-total	107	72	-	-	86	41	-	-

Note 1. Age: Age of employee on first day / last day of employment

Note 2. Number of new employees includes first-time employees, and does not include returning or reinstated employees / Turnover includes only the number of resignations and retirements, and does not include dismissals or jobs placed on hold

Note 3. Total number of company employees as described in the above table is based on numbers on retrieved on the day of December 31, 2020

## Salary and Benefits

Nuvoton Technology employee salaries are in compliance to the minimum wage rules of the Labor Standards Act. In order to provide employees with a workplace in which they can develop both mentally and physically in a balanced manner, we implemented a pre-planned vacation management system to assist employees in planning their vacations. And we also actively remind employees to take adequate vacation time as to promote the concept of healthy work environment. In terms of benefits, Nuvoton provides insurance and pension benefits that are in compliance with local laws and regulations across the globe. Nuvoton further provides group insurance benefits that are above and beyond the requirements of the law to ensure the work and life safety of its employees. To encourage marriage and birth rates, we provide designated expectant mother priority parking spaces, lactation rooms, maternity gift packets, maternity leave, paternity leave, family care leave, marriage leave, and a cash gift from the employee welfare committee for each birth.

We further abide by the "Gender Equality in Employment Act", which gives male and female employees the right to apply for maternity and paternity leave. In 2020, 19 female employees applied for maternity leave, and approximately 80% returned after the end of their leave period; and 13 male employees applied for paternity leave, and 100% returned after the end of their leave period. The aforementioned female employees who did not return directly to Nuvoton after their maternity leaves applied for unpaid maternity leave under the "Act of Gender Equality in Employment", with 71% returning in 2020 after their maternity leave. Furthermore, 86% of employees who began their maternity or paternity leave during the previous year returned to work.

- Maternity/Paternity Leave Statistics for Nuvoton Employees

	No. of Female Employees	No. of Male Employees	No. of Employees taking Maternity Leave	No. of Employees taking Paternity Leave	No. of Employees Qualifying for Parental Leave
2015	601	712	27	51	315
2016	613	754	16	29	266
2017	616	775	19	44	255
2018	618	790	18	21	225
2019	613	789	26	26	199
2020	635	806	19	13	186

Note: Year of the first day of maternal/paternal leave was used to decide year of each paternal/maternal leave.



### • Nuvoton Post-Maternity / Post- Paternity Leave Employee Retention Rates

Year	Employees Returning After Maternity Leave		Employees Returning After Paternity Leave		Resigned Within 1 Year of Maternity Leave		Resigned Within 1 Year of Paternity Leave	
	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage
2015	24	89%	51	100%	1	4%	7	14%
2016	15	94%	29	100%	0	0%	4	14%
2017	15	79%	44	100%	0	0%	4	9%
2018	14	78%	21	100%	0	0%	1	5%
2019	20	77%	26	100%	1	4%	2	8%
2020	15	79%	13	100%	1	5%	1	8%

Note 1: The number of employees who return to work after parental leave does not include those who apply for parental leave within one week of finishing parental leave.

Note 2: The number of employees leaving within one year of parental leave includes those that remain on extended parental leave as well as those transferring within the Company upon their return.

Note 3: The percentage of those returning after parental leave = number retained / total number of people that took parental leave

The percentage of employees that leave the company within a year after their parental leave = number of employees that resign (excluding those taking extended leave) / total number of employees taking parental leave.

### • Nuvoton Post-Parental Leave Job Return Rate

Year	No. of Employees that Applied for Leave		No. of Employees Forecast to Return During Current Year		No. of Employees Returning to Work After Parental Leave			No. of Employees Retained After 1 Year of Returning From Parental Leave		
	Male	Female	Male	Female	Male	Female	Reinstatement Rate	Male	Female	Retention Rate
2015	1	13	1	12	1	8	69%	0	6	86%
2016	0	13	0	11	0	11	100%	0	7	78%
2017	3	13	2	17	1	14	79%	0	11	100%
2018	0	7	2	13	1	12	87%	1	14	100%
2019	0	13	0	9	0	7	78%	1	12	100%
2020	1	5	0	7	0	5	71%	0	6	86%

Note: Reinstatement rate = number of people returning to work after parental leave in current year / number of people expected to return to work in current year

Retention rate = number of people that remain an employee 1 year after taking parental leave / number of people taking parental leave in the previous year

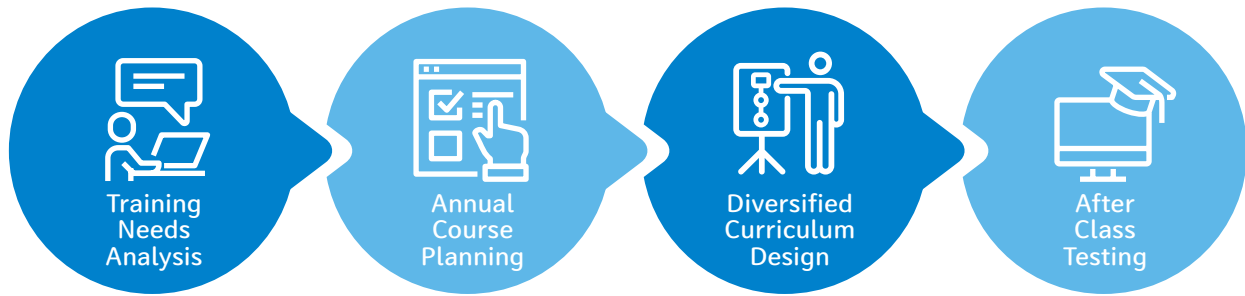
## Comprehensive Retirement Policy

To ensure the quality of life after retirement of our employees to enhance their service spirit, Nuvoton Technology has formulated an Employee Retirement Management Plan in accordance with the Labor Standards Act. The Plan clarifies retirement conditions, payment standards, application procedures and other matters, as well as setting up an employee retirement fund supervision committee according to law. According to Article 56, Provision 1 of the Labor Standards Act, Nuvoton shall on a monthly basis allocate funds to an employee retirement fund at the Bank of Taiwan. And according to Provision 2 of the same Act and Article, the company shall estimate the number of employees expected to meet retirement conditions by the fourth quarter of each year, assess the current balance of the retirement fund, and make up the difference required to fund the retirement payments. In addition, all employees applicable to the Labor Pension Act are required to make payments of 6% of their monthly salary to their individual Bureau of Labor Insurance pension fund account in accordance with regulations. Currently 15% of employees have opted to take part in the previous retirement policy whereas 85% of employees have instead opted for the new retirement policy.



# Learning and Development

Nuvoton values the learning and development of each employee. We design different learning methods each year based on the analysis of training needs surveys. We offer a wide range of learning channels and diversified learning styles, focusing on rich and practical learning content, integrating internal and external learning and development resources, and encouraging active learning and the sharing of skills and knowledge, in order to provide employees with a complete, continuous, diverse and broad-based learning environment and development platform. We are dedicated to creating a working environment that encourages knowledge sharing and growth.



## A Wide Range of Learning Channels

Nuvoton offers a variety of learning channels and diverse ways of development to meet the various learning and growth needs of employees at all levels. Through our training needs surveys every year, we are able to gain a deeper understanding of the training needs of each unit. With this info, we arrange course learning (internal and external training courses / practical experience sharing seminars /online learning), practical learning (on-the-job training, task or project assignment, work rotation), and learning from others (work instruction, peer learning) to enhance employees' personal performance and stimulate their potential.

### Course Learning

Internal and external training courses / Practical experience sharing seminars /Online learning

### Practical Learning

On-the-job training, Task or project assignment, Work rotation

### Learning from Others

Work instruction, Peer learning

## Courses - Classroom Style Courses

Pertaining to different work positions, we arrange for lecturers to share knowledge and practical experience for specialized courses based on the work skill needs of employees. We systematically plan the learning and development map of each employee, launching a diversified cultivation plan to provide internal/external training resources, and encourage employees to continue to enhance professional knowledge and cross-field learning.

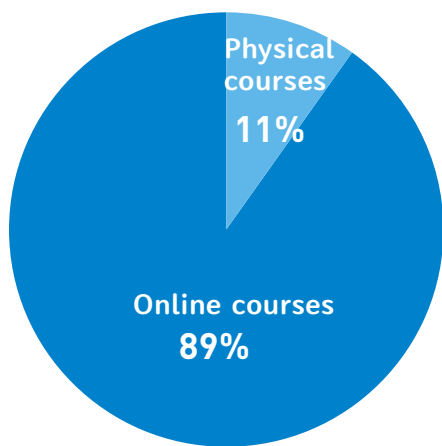
Based on the results of our training needs surveys, our physical courses in 2020 include: professional courses, training for new recruits, management training, quality, and common courses. This serves to integrate employee growth with corporate development goals. Furthermore, we also held lectures based in specific topics to share practical experience or discuss industrial and economic trends. This can allow them to understand the latest industry developments and learn from external benchmarked enterprises and talent, in order to absorb new knowledge, expand their horizons, and establish a network of professionals in the field.

## Courses - Online Learning

In 2013, Nuvoton launched its Cloud Learning platform. The platform includes an Innovation Academy, Cloud Academy, LOHAS College, Green Technology Academy and other various types of learning content. Establishing this platform has increased the resources and channels available to employees for online learning, and ensuring education is no longer subject to time and space constraints. The company can also integrate all training data from the platform to facilitate training management and record tracking. Employees can choose courses according to their business needs or their own interests. Each Nuvoton employee will be able to embrace challenges and maintain their enthusiasm for learning, as well as gain insight into social trends and learn faster than competitors. This fosters a working environment that values knowledge sharing and mutual teaching.

Due to the pandemic, the proportion of online courses has greatly increased in 2020 to encourage the concept of uninterrupted learning. So far, the Nuvoton Cloud Learning platform offers a total of 600 online courses, featuring different categories that cover new employee training, communication, management, professional skills, language learning and other such fields that are provided for colleagues to self-learn.

### • Number of courses



■ Online courses ■ Physical courses

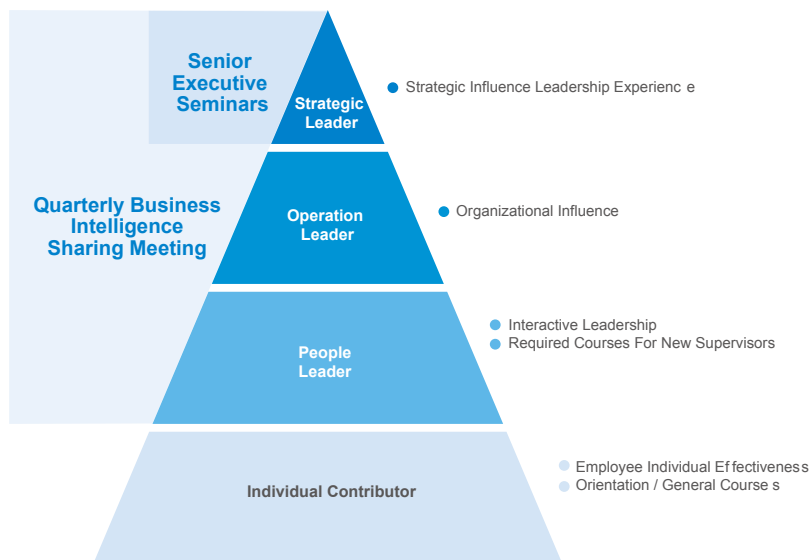


## On-The-Job Training & Mutual Learning

In addition to classroom learning, an effective learning method is through on-the-job-training (learning through doing), by being provided with a contextual experience, and by following the guidance of a supervisor or expert to speed up the learning effect. Therefore, we arrange for each new employee to be guided by at least one buddy in their department. Furthermore, we also encourage participation in cross-departmental projects or organizational assignments, and to accept work rotation or interaction with peers in other fields. This allows knowledge and skills within the organization to quickly be shared, wisdom to be continuously accumulated, and fosters practically beneficial talent.

## Rich Learning Contents

Nuvoton has constructed a complete and diversified education and training system, with appropriate learning content available for all different employee levels, job functions and development needs, from newcomers to senior executives. The system includes diversified training categories, solid content and an emphasis on interactive learning and shared discussion, while adding importance to post-learning practical application, so that employees can continue to enhance their knowledge and skills in order to more effectively accomplish the tasks assigned by the company.



## Training Categories

**New Employee Training:** As soon as new employees arrive, we provide complete training courses to help employees quickly integrate into the company culture and work environment. In addition to 13 online courses for new employees, we also arrange physical training courses for newcomers to understand the corporate vision and culture, organizational profile, rules and regulations, and various business groups and their products, as well as the basic knowledge and skills required for work so that newcomers can become familiar with the our company' s business and related operations as soon as possible. At the same time, we also care for new employees and provide them with necessary information and support through the establishment of the Buddy system and other assistance mechanisms. This allows new employees to quickly and effectively build an interpersonal connection network and support system.



### » Management Training

Nuvoton Technology defines the management competencies that should be possessed by a manager at every different level. To enable managers to possess the necessary competencies required at each level according to the different functions and roles of their job, we provide corresponding training courses on a function-by-function basis. In 2020, we launched training courses for lower level management, based on target selection, team communication, and coaching to provide practical tools for lower level management. For higher level management, in order for managers to be able to grasp the latest trends and developments in domestic and foreign industries, we hold an advanced series of lectures on "Topic-Specific Practical Experience Sharing" quarterly to provide knowledge exchange and learn from internal and external experts so Nuvoton' s development can be more in line with the industry. In addition, in line with the company's strategic direction, we also held a special lecture on "Digital Transformation", where we invited heads of various units to participate. The learning material served to accelerate practical digital transformation for each department.

### » Professional and technical training

In order to promote the learning of professional knowledge or skills to employees in different job positions, and to assist in the development of its business and project plans, each organizational unit will arrange on-the-job training within its department per its own specialized fields. Various courses, special lectures, seminars, experience sharing and other technical and professional training will also be provided. The fields of training provided include direct personnel training (workstation skills training), engineering, research and development, marketing / business, finance, import / export / procurement, information technology, and legal services training.

### » Universal Training

In order to comply with the requirements of laws, regulations and company policies, we arrange universal basic training. The training, for which all employees are required to attend, includes content about the company's vision and mission, corporate culture and values, corporate social responsibilities, customer satisfaction, quality management, environmental, safety and health requirements (including environmental protection, fire drills etc.) and other courses . The course content does not vary across employee hierarchy or departmental function. Among the courses, in order to promote the philosophy of "being a good corporate citizen" and with the expectation that employees can implement this philosophy in their daily work, Nuvoton has also arranged Corporate Social Responsibility related courses such as the "CSR Code of Conduct" and "How to Do Business with Integrity" . In 2020, a total of 4,182 employees completed CSR-related courses, accounting for 100% of all employees.

## Training Quality and Results

In order to ensure the quality of training, Nuvoton has established "Education and Training Management Procedures" to standardize the differentiation of training needs, the formulation of training plans, the management of training courses and the participation process. In addition, it establishes a training follow-up supervision model to ensure that learned skills and knowledge are actually gained and implemented. This model includes: understanding the previous situation of trainees through interviews or surveys conducted before the training, which serve as basic information for curriculum design and curriculum effectiveness; and then conducting post-course surveys and effectiveness tracking, collecting trainee feedback and practical application information to understand the challenges and difficulties of real-world implementation. These are utilized as a follow-up diligence policy to improve employee learning effectiveness in order to improve learning outcomes.



## Employee Education and Training Results for 2020

In 2020, Nuvoton Technology provided a total of 19,293 hours of training to its employees. The average duration of training per employee was 13.39 hours. Employee training statistics in 2020 are summarized below:

2020 Employee Training Statistics by Gender and Hours									
Personnel Type	Male			Female			Total		
	Training Hours	Employee No.	Average Hours Per Person	Training Hours	Employee No.	Average Hours Per Person	Training Hours	Employee No.	Average Hours Per Person
Technical	95.23	32	2.98	591	364	1.62	686.23	396	1.73
Management	2,142.35	135	15.87	147.25	20	7.36	2,289.6	155	14.77
Professional	12,539.98	639	19.62	3,777.51	251	15.05	16,317.49	890	18.33
Subtotal	14,777.56	806	18.33	4,515.76	635	7.11	19,293.32	1,441	13.39

Note 1: The number of employees counted as the number of active employees at the end of 2020

Note 2: Average hours per staff = training hours / number of employees

All Nuvoton training courses are held in full consideration of organization/job needs, gender equality, and equal opportunity principles. The difference in training hours between men and women is mainly due to the fact that the majority of technicians are female, and the proportion of male supervisors and professionals is relatively high. The training needs of the latter two categories are high, so there is a gap. We hope that by providing diverse learning channels, including physical classroom learning and online learning, as well as a wide variety of learning resources and opportunities and integrating external and internal learning resources to continuously foster talent within our workforce, we can create an environment which allows our employees to grow along with the Company.

## Talent Cultivation - Campus Outreach Program

In order to prepare early and cultivate talents that meet the needs of our industry, and also shorten the adaptation period for students to enter the workplace and strengthen the competitiveness of the IC industry, Nuvoton continues to deepen campus relationships and cultivate key talents. In addition to participating in campus recruitment activities, we also plan campus projects such as arranging department heads to give lectures on campus, combining current trends and introducing students to the future and challenges of IC design in the AI era. At the same time, students are introduced to Nuvoton's corporate vision, company culture, salary and benefits system, primary products and their applications, and more, so that visiting students could gain a better understanding of the technologies used and developed by Nuvoton and their latest applications.





## A LOHAS Work CLOHAS Reward Cardure

Employees are important assets of the company. Nuvoton is committed to creating a working environment that allows employees to be physically, mentally, and spiritually healthy. In addition to taking care of the health of employees, Nuvoton's LOHAS team carefully plans different themed activities, putting their thoughtfulness and care into action to create a healthy and happy workplace environment, thereby promoting work-life balance. Due the pandemic, it was impossible to organize various activities in 2020, but normal activities were resumed when the pandemic subsided, such as receiving massages from the visually impaired, stretching classes, and much more. To encourage employee participation, we created LOHAS reward cards so employees could participate in activities to collect points, and use those points to get prizes. Our office stretching exercises have been continuing for 3 times a day, reminding employees who have been sitting in the office for a long time to get up and stretch their legs and take a rest for a while. Furthermore, Zheng Yunlong was invited to give a speech, sharing the importance of spinal health care, giving employees that were stressed due to the pandemic a chance to relax.

### 2020 LOHAS Evtnts

**樂活·名人演講**

脊椎就像身體的主幹，不正確的姿勢，會影響大腦傳輸的指令，嚴重會影響生活品質與健康，腰痛發生時只能依賴醫師與專家治療，自己卻缺乏腰痛與健康管理的知識嗎？

本講座提供幾週日常可做的健康生活對策，以及合乎自然法則的生活之道，請您照顧自我的健康。

**演講名人** 鄭雲龍 先生

**時間** 10/23  
11:00 ~ 12:30

**地點** 竹北151演講廳  
本場次無視訊

**主題** 健康  
自「脊」來



• 限額50名 **10/16** 中午 12:00報名截止，EA請洽健康中心報名，如超出名額，將於**10/19** 抽籤。

• 本講座與華邦合辦，欲報名同仁，請先徵詢直屬主管同意。

• 防疫期間，演講廳座位採梅花座，請保持社交距離，並配戴口罩。

• 參加同仁可得一張樂活貼紙。

>>> 線上報名由此去

活動洽詢：樂活小組，分機 33246-8

樂活集點卡兌換  
開始囉！

集滿5點的同仁，即日起請攜帶您的集點卡至健康中心換取(二擇一)

**A. 兌換50元超商商品卡一張**



**B. 抽威秀電影票2張**



@兌換期限至4/15

• Celebrity Lecture

• LOHAS Reward Card



## Employee Welfare Committee

Though an election system, we select various regional welfare committees to handle employee welfare-related tasks, formulating annual plans and budgeting every year to provide various subsidies for marriage, childbirth, funerals, and unexpected disasters, including New Year gift vouchers, birthday gift vouchers, organizing group activities, travel plans, club activities, etc.

Nuvoton also continues to cooperate with manufacturers so discounted merchants can be found via mobile application, providing electronic identification, special deal vendors (about 3,128 special deal vendors), and group buying, making it more convenient for Nuvoton employees to enjoy discounts. Employees can enjoy the benefits of food, clothing, housing, transportation, education, and entertainment in their daily lives after work.

## Employee Clubs

The 17 self-generated employee clubs include guitar club, bicycle club, runners club, basketball club, badminton club, volleyball club, table tennis club, yoga club, bridge club, board games club, aerobics club, mixed sports club, and Internazionale club.

Through our club subsidy system, we encourage clubs to actively organize various activities so that employees can enjoy common interests or professional development in a relaxed manner after work. Helping to relieve work stress, clubs help promote health and vitality, creating a new possibility for communication between employees.

### Bicycle Club



### Bridge Club



### Runners Club



### Yoga Club



### Basketball Club



### Table Tennis Club



### Badminton Club



### Jogging Club



## Company Vacations

Company vacations are widely anticipated by Nuvoton employees. Through a travel subsidy system, employees can form groups to go on vacation together, creating closer bonds and relationships. The diversified activities are suitable for all ages, such as large amusement parks, escape rooms, river tracing, go-karts, barbecue, shrimp fishing activities, and much more. With a total of 48 sessions, a total of 1,218 Nuvoton colleagues participated.

### River Tracing Experience



### Nostalgic Retro Light Travel



### Go-kart Experience



### Escape Room



### Ranch Barbecue Family Day Event



### Karaoke



### Family-fun Amusement Park



### Shrimp Fishing





# Occupational Health and Safety

## 2020 Occupational Health and Safety Management Policies

<b>Importance</b>	The physical and mental health of our employees is an area of great importance to Nuvoton Technology, and is the first point of consideration during the planning of all operations. At Nuvoton, we are fully committed to meeting progressive international safety, hygiene, and health promotion concepts.
<b>Policies / Commitments</b>	Commit to the providing, maintaining, and continuous improvement of a work environment that fully complies with all relevant regulations; prevent in all ways possible the occurrence of incidents that may harm our employees in any way; promote and implement LOHAS concepts in employee care, commit to the creation of a happy corporate workplace environment.
<b>Goal</b>	Creating a safe working environment to serve as the foundation for sustainable development. With the continuation of our "zero workplace disasters" record as the goal of our occupational safety and health management policy.
<b>Promotion Priorities and Practices</b>	<ul style="list-style-type: none"> <li>» Promote a safe culture: through observation of our operations, environmental safety management contribution rewards, regular work environment monitoring, management change mechanisms, and the promotion of safety management platforms for all areas, we facilitate a safe working environment for employees. In 2020, COVID-19 was newly added as the fifth category of legal infectious diseases in Taiwan. To implement pandemic prevention measures and protect the safety and health of workers in the workplace, we have held weekly epidemic prevention meetings, and we continue to pay attention to the pandemic and the government's pandemic prevention policies. We make rolling adjustments at any time to protect the safety of employees and operating partners as the most important responsibility.</li> <li>» Establish comprehensive health management: implement occupational disease prevention, and work with industrial hygiene, occupational nurses, and occupational doctors to comprehensively improve the health and wellbeing of employees.</li> </ul>
<b>Performance Results</b>	<ul style="list-style-type: none"> <li>» Area Industrial Safety Committees: According to different safety, health, and environmental issues related to each area, 4 different area Industrial Safety Committees were established to continuously work on the promotion of comprehensive industrial safety practices to improve workplace safety.</li> <li>» Contractor Management and Operational Safety Control: Strengthened operational safety precautions are combined with routine inspections and the adoption of mobile management to fully carry out safety policies. Contractor disability injury rate has remained at zero for the past five years.</li> <li>» Various Emergency Response Drills: In 2020, a total of 69 emergency response drills (including fire drills, chemical leak drills, gas leak drills and emergency evacuation drills) were held.</li> <li>» Occupational Accident Indicators: The recordable occupational injury rate (frequency of disabling injuries) for employees is 0.71, and there were no occupational injuries for non-employees.</li> </ul>

### Promoting a Safety Conscious Culture

To Nuvoton, ensuring zero occupational accidents and promoting employee health are obligatory responsibilities. We are actively establishing and promoting a culture of environmental protection, safety, and health: "Before engaging in any activity, service, or production, environmental protection, safety, and health concerns must be considered first."

Since the outbreak of COVID-19 at the end of December 2019, it has rapidly spread to other provinces and cities in China and around the world. At the beginning of 2020, Nuvoton immediately established the Nuvoton COVID-19 Prevention and Response Plan as a guideline to implement of workplace pandemic prevention measures. Through weekly pandemic prevention meetings, we continue to pay attention to the pandemic and the government's pandemic prevention policies. We make rolling adjustments at any time to protect the safety of employees and operating partners as the most important responsibility.

### Positive Reinforcement Measures for EHS Management Contributions and Incentives

To date, the EHS (Environmental, Health and Safety) management unit has continued to follow the P-D-C-A method and the spirit of continuous improvement to maintain our environmental, health and safety management system. Nuvoton is committed to advancing a culture of safety first in the workplace, with implementation from top to bottom to promote regular inspections by supervisors of all levels to discover potential risks and make improvements to improve the safety of work operations and the workplace environment. Personnel safety training and knowledge is not only a basic part of health and safety management, but it is also the main basis for enhancing a culture of safety first in the workplace. All employees who participate in regular EHS training, emergency response training and other related kinds of training can enhance their safety awareness and resilience. Therefore, the EHS management unit established a "EHS Management Promotion Performance" scoring system, to confirm the active contribution of all units in providing a safe and comfortable work environment. An evaluation of the "EHS Management Promotion Performance" is conducted quarterly, with awards and recognition given during each plant section's health and safety meeting.

- In 2020, each sector pushed forth their “EHS Management Promotion Performance” evaluation items

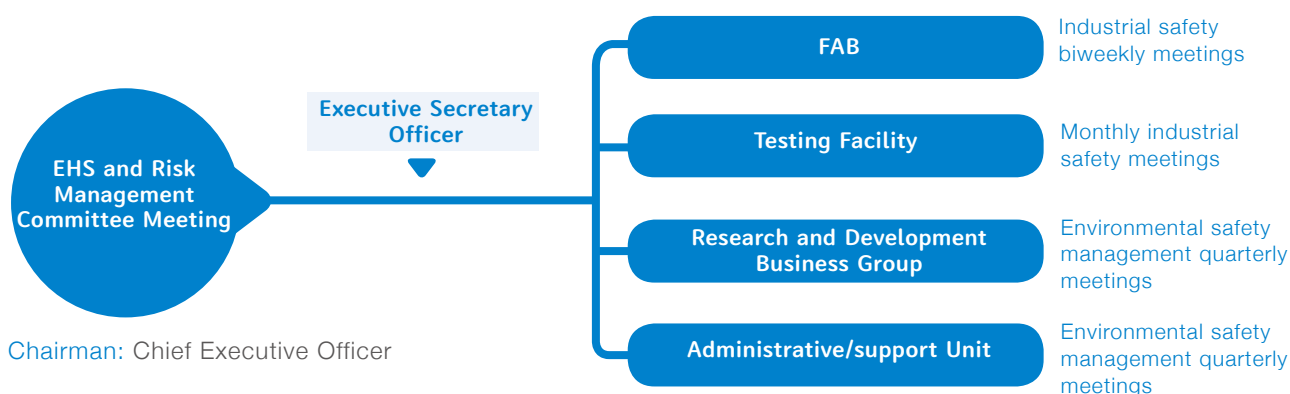
Evaluation Items	Wafer Foundry Unit	Testing Unit	R&D Unit	Administration/Support Unit
Supervisor inspection and observation of operations	V	V	V	V
Emergency response professional skills test	V	V		
Education and training participation rate	V	V	V	V
EHS system audit	V	V	V	V
EHS issues QA	V		V	
Occurrence of accident or loss	V	V		V

## Establishment of a EHS Committee and a Pandemic Prevention Command Team to Implement a Communication Mechanism

In order to implement comprehensive safety and health management, Nuvoton has set up an "Environment, Safety, Health and Risk Management Committee" to hold regular quarterly meetings with the general manager as the chairman. Occupational safety and health personnel, medical personnel, various responsible units, and labor representatives serve as committee members. Among them, there are 7 labor representatives from each unit, accounting for 50% of the 14 members of the committee. The main topics for discussion are: progression of goals, compliance with laws and regulations, various occupational safety and health promotions, occupational disease prevention and health promotion, pandemic prevention management, environmental health and safety management performance, and damage prevention results. We continue to make improvement plans to implement the communication and improvement of health and safety.

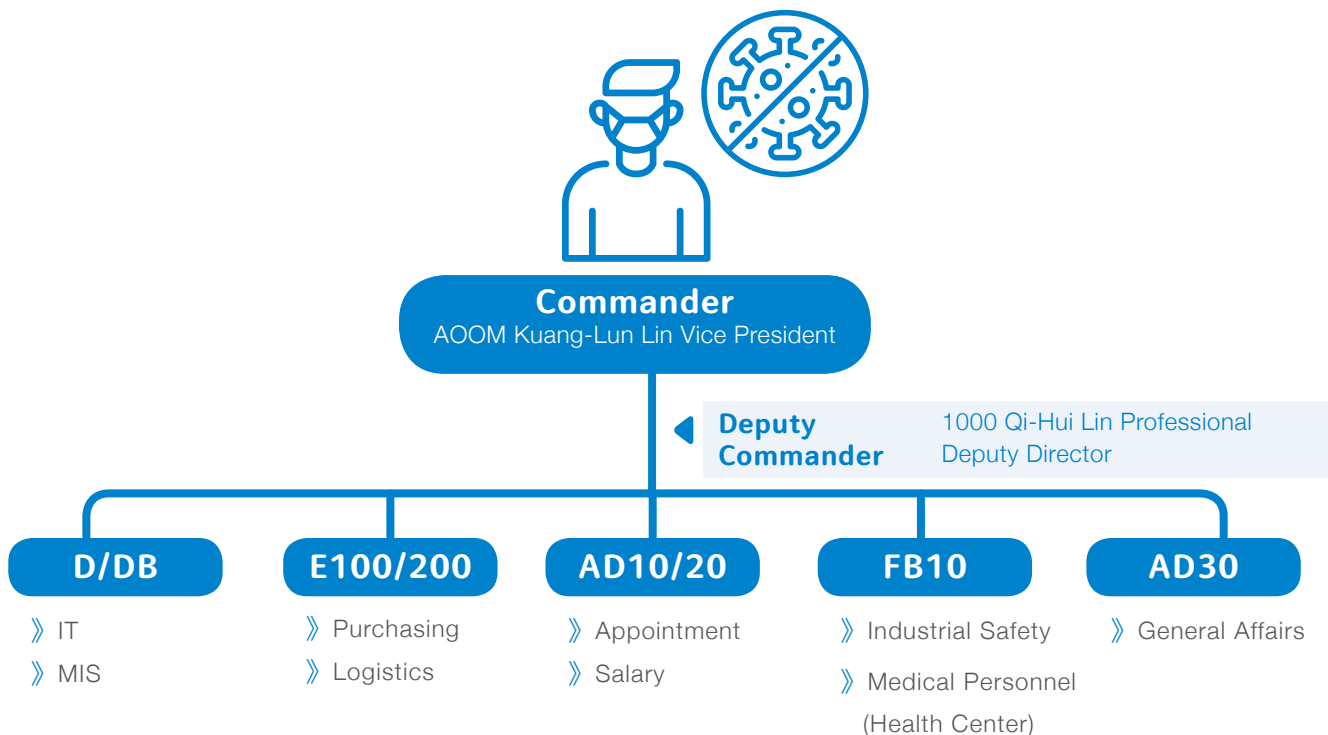
According to different safety, health and environmental issues, different periods and safety mechanisms most suitable for each segment are brought forward for discussion through the labor representatives with their respective committee, continuously making improvements to create a healthy and safe environment. Through a comprehensive management system and the active participation of all employees, disaster and loss prevent is able to be achieved.

- Nuvoton Technology - EHS and Risk Management Committee Organization Chart




因應疫情及早成立防疫指揮小組，組成完整的決策團隊，並由高層主管親自參與，建立穩健的決策及治理機制。定期每週或必要臨時加開防疫小組會議，成員含括：製造事業群副總、行政管理中心專業副總監及人資、任用、總務、工安、醫護 (健康中心)、採購、物管及資訊.. 部門。

• Nuvoton Technology-Organization Chart of Epidemic Prevention Team Meeting




In order to ensure that employees have a safe and hygienic working environment, Nuvoton has adopted appropriate control measures for operational hazards that may be caused by the pandemic. We adjust pandemic prevention management measures accordingly in response to the latest pandemic information released by the Central Epidemic Command Center to effectively prevent infection within our company.

Our epidemic prevention measures include:




**01 Personnel control and quarantine**

- » Access control
- » Foreign business trips and travel control
- » High risk case management



**02 Personnel protection**

- » Mandated mask policy
- » Reduce physical meetings and training
- » Disinfection of environmental surfaces
- » Meal Rules
- » Propaganda



**03 Staggering employee shifts**

- » Working from home / Staggering employee shifts

## 01 Personnel control and quarantine

### Access control

- » The company entrance uses a thermal imagers or Forehead thermometers to monitor body temperature
- » Those with cold or fever symptoms are prohibited from entering the company
- » Visitors are prohibited from entering
- » Construction manufacturers need to apply for approval to enter the factory, and fill in the independent health summary form

### Foreign business trips and travel control

- » Suspended employee overseas business trips
- » Advised employees to stop travels abroad, and employees need to conduct self-health management for 14 days when returning from travel abroad
- » If family members have fever or cold symptoms after returning from abroad, then employees must stay home for observation

### High risk case management

- » Risk control investigation and request for self-health management: Alarm text messages for employees that went to warning scenic spots during the Qingming Festival holiday

## 02 Personnel protection



### Mandated mask policy

- » Our company has provided masks to protect employees and prevent infection
- » Employees are required to wear masks when talking to other people, in public areas, in elevators, on transportation vehicles, etc.



### Reduce physical meetings and training

- » Large meetings are held virtually instead of in-person
- » Suspended non-essential outside training to avoid the risk of crowds
- » Postponed training courses or changed the course to e-learning



### Disinfection of environmental surfaces

- » Increased disinfection frequency for public areas, halls, meeting rooms, transportation vehicles, and toilets
- » Installation of hand sanitizers in each factory area



### Meal Rules

- » Staggered meal times and locations in Zhubei Building
- » Installed dining tables dividers in the Tainan office
- » Staggered meal times in Yanxin Plant
- Meal times are controlled by the security guards
- Provided meal boxes
- Installed dividers at dining tables, low density dining seats



### Propaganda

- » Launched COVID-19 website
- » Provide COVID-19 knowledge

## 03 Staggering employee shifts

### Zhubei Building

- » Implemented remote work for the most part
- » Those that cannot do remote work have staggered A,B shifts in the building

### Yanxin Plant

- » Staggered working groups, different working locations
- » A group is on the first and second floor; B group is on the third floor

### North, Tainan, and Zuoying offices

- » Remote work for the North office and Zuoying office
- » A majority of employees at the North office are working remotely. Those that cannot do remote work have staggered A,B shifts in the building

### A/B Grouping Principle



A/B groups are not allowed physical contact

- » Entry and work area: Completely different routes and office working areas assigned
- » Cross zone workers: Must apply for special permissions to enter
- » Dining facility and convenience store usage: Different time periods and areas assigned
- » Factory FAB: Workers already wear face masks and cleanroom suits, two different movement paths assigned
- » Warehouse and laboratory: Different time periods assigned to each group



## Working Environment Monitoring

- In order to establish the quality standard of the working environment and provide workers with a comfortable and healthy working environment, Nuvoton regularly implements working environment monitoring every six months. Exposure analysis is conducted before testing to work out environmental testing and monitoring plans to ensure that high-risk exposure chemicals are included in the monitoring. Nuvoton commissions government-approved qualified testing agencies to conduct testing to ensure the validity of the data. If there is any abnormality in the monitoring data, the industrial safety department will formulate relevant improvement plans or adopt administrative management to ensure that employees will work in a safe working environment. The monitoring results of the labor working environment shall be archived and kept by the industrial safety department as the basis for the follow-up special labor health checks and to be used as reference for the supervisors of each unit to dispatch workers to prevent the occurrence of occupational diseases in the plant.
- The testing items include methanol, acetone, isopropanol, 1, 2-dichloroethylene, sulfuric acid, hydrochloric acid, hydrofluoric acid, etc. In addition to the statutory required items, Nuvoton also includes high-hazardous chemicals, such as methylpentanone, NMP, etc. There were 77 monitoring points in the both the first and second half of 2020. The monitoring results have all passed qualifications.

## Contractor Management and Operational Safety Control

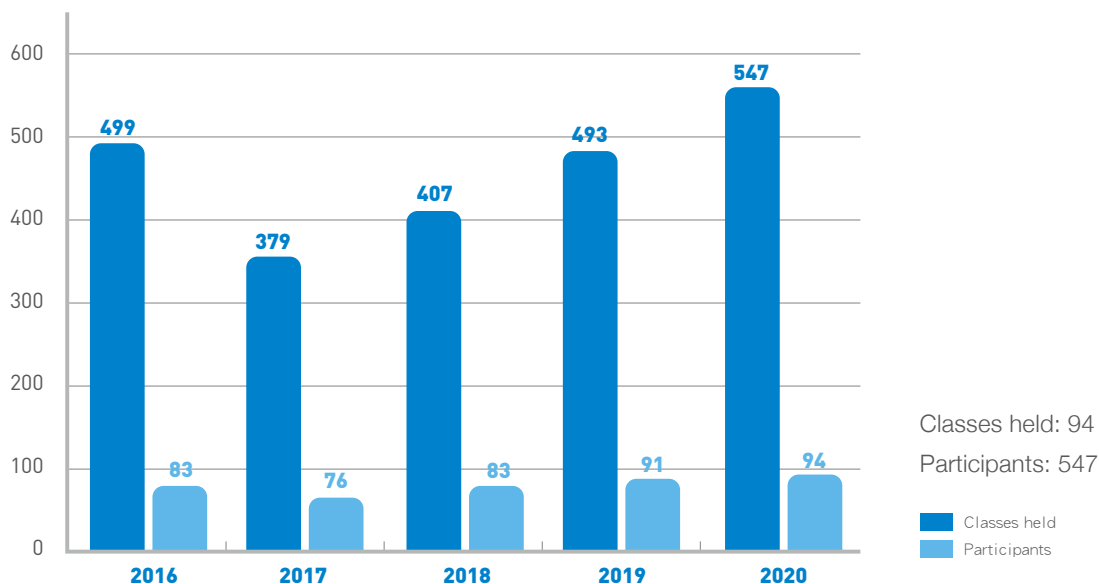
In order to ensure the health and safety of contractors when they work in our plant, we have established clearly defined environmental, health and safety protocols for vendors during visits to the foundry. A requirement to apply for a construction safety permit allows for the management of construction operations and risks. Contractors are further required to undergo relevant education and training, or be informed of hazard factors, operating environment hazard risks and relevant health and safety regulations, which will help to strengthen operational safety precautions and emergency procedures. These measures are combined with routine inspections and the adoption of mobile management to fully carry out safety policies to achieve the goal of zero disasters.

High-risk operations are further controlled by construction permits. Special operations include hot work, lifting and lowering of heavy loads, working with limited space, working above ground level, drainage or handling of special gasses or chemicals, demolition or other such operations. The strict safety protection measures serve to ensure the safety of workers and avoid affecting the environment.

- Nuvoton contractors have reported zero number of disabling occupational accidents in the past five years.

Contractor	2016		2017		2018		2019		2020	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Disabling Injury No.	0	0	0	0	0	0	0	0	0	0

- Contractor Education and Training Results for 2020:



## Change Management Systems

Concerning change management, the most crucial element is to fully inform everyone about these changes at an early stage. In order to maintain normal production or improve efficiency and other services, and deal with changes or modifications that might cause operating conditions or the environment to deviate from the original safety scope and control measure, Nuvoton requires that all units take the initiative of reporting changes. In addition, digital applications are made for changing risk assessment cases to provide users with more convenience. In addition, we are able to obtain the latest rapidly changing information through material sample identification procedures, raw material supplier PCN (Process/Product Change Notice), process or equipment Process Change Review Board, as well as purchasing and other management systems. Considering the needs of health and safety, we will conduct preliminary risk determination and impact assessment with the relevant departments. If the assessment results have increased or been changed to being of important risk or influence, relevant protective measures shall be taken to confirm whether the necessary control measures have been completed. If there are additional operation control requirements, relevant documents should be drafted or revised, and relevant personnel should complete required training. In 2020, there were a total of 7 PCNs for raw material suppliers and 16 applications for risk assessment changes.

## Employee Training and Emergency Response Management

In addition to promoting related health and safety activities, Nuvoton also places emphasis on safety and sanitation training. Through the organization of educational training courses for new employees, special operations, chemical use personnel, and other such personnel, we teach concepts such as work safety and protection, and advocate emergency response skills in case of emergencies to enhance the correct understanding of safety and health related knowledge

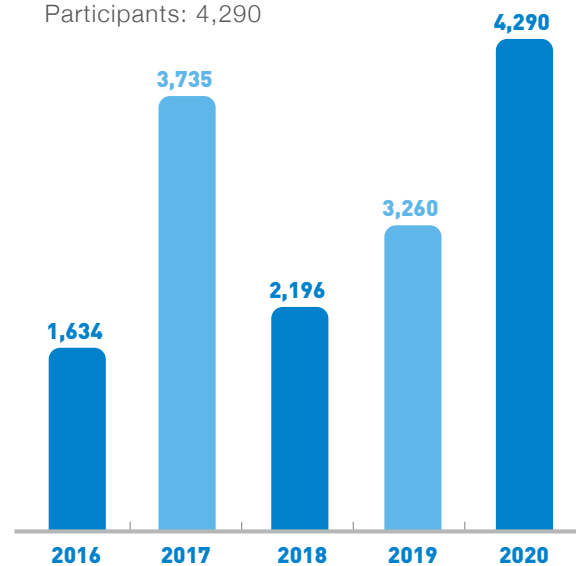
Based on each year's training plan, we conduct physical or utilize digital teaching materials and course videos on a regular or irregular basis, breaking the physical barrier to strengthen the knowledge and skills of employees on risk awareness, hazard prevention, and emergency response capabilities. This serves to cultivate employees' emergency response capabilities and safety concepts.

Nuvoton employees should undergo firefighting training, including the use of fire extinguishers, fire hydrants, and evacuation drills to strengthen awareness of disaster prevention and evacuation.

In addition, every year emergency response drills are held to cover a variety of accidents that may occur at Nuvoton, and every 2 years emergency response teams conduct recurrent training to help familiarize employees with notification and reporting procedures, site control, first aid, as well as disaster rescue equipment operation methods and support.

- 2020 Safety and Sanitation Education and Training Performance:

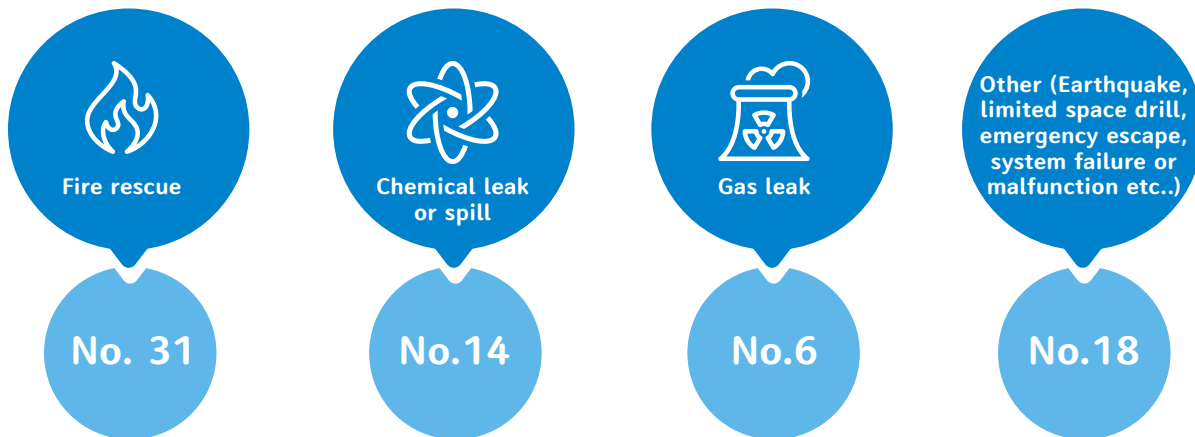
Classes held: 83  
Participants: 4,290



## » Various Emergency Response Drills During 2020

In response to possible emergencies that could occur such as internal accidents in various areas or natural disasters, Nuvoton has formulated emergency response procedures that provide a basis for internal departments to formulate contingency plans for individual situations, emergency response team formation, and holding drills and training. These procedures will minimize the impact of personal injuries, property damage and disruptions caused by various emergencies that could occur. In 2020, a total of 69 emergency response drills (including fire drills, chemical leak drills, gas leak drills and emergency evacuation drills) were held. Holding these drills will enable rapid and correct emergency responses in the event of a real emergency.

• 2020 Emergency Response Drill Type and Drills Held Summary Figure



## Occupational Accident Indicators

Nuvoton has established comprehensive notification, handling, investigation, improvement tracking measures, and promotional system for ESH events. The "Environment, Safety, Health and Risk Management Committee" tracks and confirms the improvement results of incidents every quarter to ensure the safety of our fellow colleagues, visitors, and contractors, and to prevent the occurrence of repeat incidents. Following the indicators published by the Ministry of Labor, recordable occupational injuries are calculated based on the disability injury statistics reported by the Ministry of Labor's occupational disaster reports, and do not include incidents resulting from traffic accidents during employee commute from and to work.

In 2020, there were no fatal occupational accidents, serious occupational injuries, or occupational diseases among employed or non-employed workers. There were 2 accidents involving employee disabling injuries (one fall and fracture suspected to be caused by excessive or improper gait, and one traffic accident that did not happen during the commute to or from work (but was during work time). Evolved parties recovered at home following hospitalization. There were also minor injury accidents that were caused by physical contact (collision). Accident investigation and cause analysis have been conducted for each incident. The responsible units were requested to formulate improvement measures. These are to create a safe environment and generate hazard awareness as well as the ability to respond to unsafe circumstances immediately. Our continued efforts of improvement enable employees to work in a safe and secure environment and grow together with our company. The recordable occupational injury rate (Disabling Frequency Rate) by employees in 2020 was 0.71 (male: 0.62; female: 0.81). No occupational injuries occurred for non-employed workers.

• Nuvoton Occupational Accident Indicators in the Taiwan Area

	2020		
		Employed	Non-employed
Working hours	Male	1,603,488	13,888
	Female	1,231,672	3,968
	Total	2,835,160	17,856
Occupational injury death rate	Male	0	0
	Female	0	0
	Total	0	0
Severe occupational injury rate	Male	0	0
	Female	0	0
	Total	0	0
Number of recordable occupational injuries (Number of disabling injuries)	Male	1	0
	Female	1	0
	Total	2	0
Recordable occupational injury rate (Disabling injury frequency)	Male	0.62	0
	Female	0.81	0
	Total	0.71	0
Occupational disease rate	Male	0	0
	Female	0	0
	Total	0	0

- Occupational injury death rate = Number of deaths caused by occupational injuries / working hours x 1,000,000
- Severe occupational injury rate = Number of severe occupational injuries (excluding deaths) / working hours x 1,000,000
- Recordable occupational injury rate (Disabling injury frequency) = Number of recordable occupational injuries (Number of disabling injuries) / working hours x 1,000,000
- Occupational disease rate = Number of occupational disease occurrences / working hours x 1,000,000
- Working hours of non-employees: Calculated by full-time workers directly under the command and supervision of Nuvoton





## Health Management Promotion Program

Healthy employees are the Company's most important asset. In addition to providing a safe and comfortable working environment, Nuvoton has set up a comprehensive healthcare center with a 24-hour a day nursing staff. At Nuvoton, we provide comprehensive health resources and interactive health management practices that help maintain the health of our employees in a holistic manner. This includes the extension of the holistic health services to the family of our employees. The healthy, enjoyable working environment that we have worked together to create where our employees know that the Company is completely behind them in making sure that their families and personal lives are taken care of, allows our employees to focus on and continuously excel at their jobs, and is the primary reason for our continued and sustainable success as an enterprise.

### Health Management Program

Nuvoton Technology Health Center is positioned as a service management unit with warm and cordial services. We proactively follow up with and provide support for injured employees, providing them with precautions in care-taking and arranging physician assessments and health education after returning to work to speed up physical recovery and restore productivity. Personnel of relevant industrial safety departments regularly visit work sites to provide employees with a safe and hygienic working environment. Furthermore, we comply with laws and regulations to formulate health management plans, such as performing annual health checks for all employees, having on-site clinics, and referencing occupational safety and health guidelines. We integrate work safety, human resources, and employers to conduct workplace health risk assessments and health management, taking health promotion measures to evaluate implementation effectiveness and improvements. This serves to improve the health quality of employees to achieve the goal of preventing occupational injuries and protecting physical and mental health, constructing the company's "healthy workplace, friendly enterprise" policy.

#### A Comfortable and Warm Health Center

We have set up 2 multi-functional examination rooms. The comfortable and warm private spaces provide employees feeling unwell with a place to relax, rest, and talk in peace. Many colleagues take the initiative to talk to the nurses due to stress from family, education or other sources, and the nurses provide warm care and support in a timely manner, allowing employees to temporarily relieve their emotions and stress. Furthermore, the comfortable and bright nursing station, emergency rescue area, and other such equipped environments provide quality services so employees can get assistance with physical or psychological problems. We have received a high degree of trust and feedback from employees.

#### Emergency and First Aid Response

We have established all kinds of notification and handling specifications for accidents. The entire plant is equipped with sufficient emergency response equipment and medical kits. A total of three AEDs (automatic external defibrillators) and two sets of oxygen supply, as well as emergency rescue equipment are installed in the public area. We regularly check the functions and supplements of first-aid equipment, and regulate the regular completion of on-the-job education and training for managers and first-aid personnel to increase the efficiency of emergency rescue. In addition, CPR and AED training is actively promoted throughout the company, increasing employee emergency response knowledge and capabilities.

#### Convenient Health Management System

"My Health Manager" platform built by the health center is placed on the homepage of the company website. In order to protect personal information and privacy, employees must log in with their personal accounts and passwords before they can access historical personal health check data in the system, as well as make appointments and registration for various health promotional activities, lectures, and outpatient consultation. The number of employee views reached 24,789.



## Resuming Work and Work Distribution

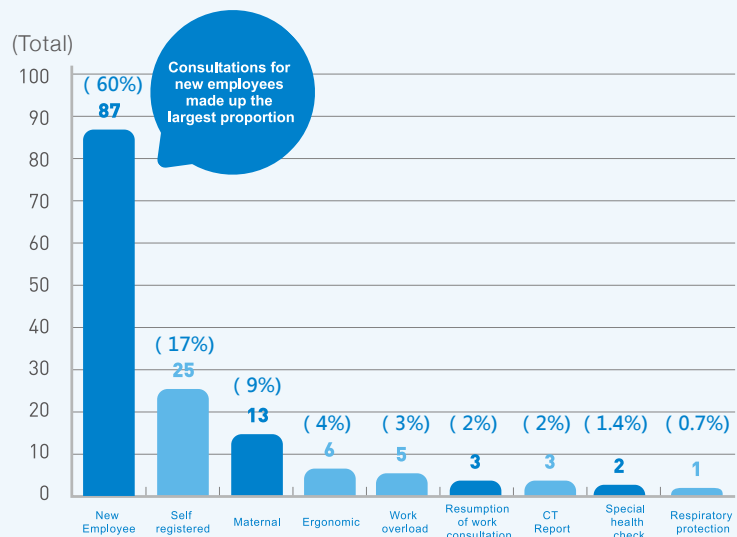
Through analyzing and understanding the work content, as well as evaluating the current work ability of individual cases, we value human resources to maximize production capacity. Nuvoton takes care of the physical and mental health of all employees, such as injuries caused by traffic accidents during work commutes or injuries regretfully caused in the workplace, and even personal health issues. The health center calls employees immediately with concern about their injuries, and also provides suggestions and assistance for direction of treatment. During the recuperation period, we regularly track the recovery status of our employees, and visit with their supervisors to give care. When employee health conditions have stabilized, they are evaluated by nurses and supervisors who jointly formulate a back-to-work plan. After agreement from the employee, they return to the workplace and are usually given phone or administrative tasks. During that period, a nurse monitors the situation of the employee returning to work, and on-site physicians are arranged to evaluate work suitability, load level, and psychological care. In 2020, two employees had a longer recovery period, and the health center kept them company and assisted in communication. They were given public injury leave in accordance with the legal regulations. The employees will adapt to work step by step before finally returning to a full-time workplace. The process meets the expectations of our employees. For traffic accidents and occupational injuries, the health center and industrial safety also investigate the causes, as well as preventive measures to prevent recurrence, thereby decreasing the chance of future accidents to protect the safety and health of employees.

## Health Check Plan

Completion of the annual health check provided to every Nuvoton employee was delayed in 2020 due to the ongoing epidemic. Special health examinations for ionizing radiation exposure, arsenic exposure, and particle exposure were completed. Environment inspection results were also referenced. Of the 28 colleagues that took part in the special health examinations in 2020, due to proper work safety monitoring and regulations and work operations procedures, none were classified as having 3rd or 4th grade abnormality levels.

## On-site Service

Nuvoton arranges for physicians specializing in occupational disorders or family medicine to hold on site clinics every month to provide employees with medical consultations and education. In 2020, 25 employees were referred for further appointments at the hospital. 6 employees opted to attend the psychiatric care clinics for further treatment or support. Using existing records from previous sessions, nurses were able to follow up and identify that an employee was not suited for wearing a self-contained breathing apparatus (SCBA) at the time. Suggestions were made to the relevant unit and the employee in question has already attended their follow-up appointment and received the necessary medication as well as arranged for continuous follow-ups. Regular environment and work safety inspections and visitations from medical personnel are held 1-2 times per year. During these visits, the laboratories of four departments were inspected and no abnormalities were found. The purpose of these on-site inspections are to help find potential health risks so that appropriate suggestions for improvement can be provided to ensure the work environment safety of our employees.



## Workplace Protection Program

In accordance with relevant laws and regulations for each different group of workers, tailored protection plans including hazard identification and assessment, effectiveness evaluation and improvement, promotion of progressive management practices have been set in place to provide our employees with a safe and healthy workplace environment.

**Ergonomic Hazard Prevention Plan :** Over the past few years, Nuvoton has continued its ergonomic hazard prevention plan to help prevent skeletal and muscular injuries from repetitive work or incorrect postures. During each annual health check, an online questionnaire is used to conduct a pain and soreness rating survey so that proactive care and clinical consultations can be arranged for those with severe pain, or alternatively have on-site visits by physicians for hazard identification and assessment as well as provide personalized guidance and assistance. Furthermore, three office-wide stretching exercise sessions are held each day. Physical therapist consultations, massage sessions from the visually impaired, and stretching classes are also provided to help employees remain active and relieve pain and soreness and employee responses have been positive.

**Stretches performed three times per day and sitting posture awareness**



**Movement guidance by physical therapists**



**Massages by the visually impaired to relieve pain and soreness**



**5 stretching classes per week. Attendance for every class consistently reaches full capacity. Assistance transferring a portion of classes to be managed by the yoga club.**



**Maternity Protection:** Surveys are conducted every month to help proactively identify pregnant colleagues and female employees who gave birth less than a year ago so that environmental hazards can be identified. Any female employees that meet the aforementioned criteria are assessed for potential exposure to hazardous substances, and are immediately scheduled for transfers if they currently work in specific zones that require yellow light, or areas that are exposed to ionizing radiation. Pregnant colleagues that work night shifts are immediately rescheduled for day shifts. Appropriate mechanisms for transfers have already been established. Following their transfers, individual medical consultations are arranged to provide these employees with the attention they need both before and after birth. Assessments of hazards in their work environment and job conditions are also carried out to provide them with relevant guidance, work suitability recommendations, and risk management methods. Due to the aging population and declining birth rates in Taiwan, the Company actively encourages employees to have children. Special parking spaces are provided for pregnant employees. Childcare gift packages are also provided, as well as the use of fully equipped breastfeeding rooms. Childbirth subsidies are also awarded. Through these measures, we help safeguard the health and benefits of all female employees throughout and after their pregnancies.



Visitation and assessment of environmental and job content hazards from physician specializing in occupational hazard. Advised immediate transfers for pregnant women working in areas with potential exposure to hazardous substances or in specific zones that require yellow light, areas that are exposed to ionizing radiation, or areas where wet etching is performed.



**Childbirth encouragement, a friendly working environment for pregnant women**

- Company breastfeeding rooms are comfortable and fully equipped and have received best workplace breastfeeding room certification awards from the Hsinchu government in the past
- Encouragement for having children, pregnant female employees can receive childcare gift packages upon providing proof of pregnancy
- Special parking spaces for the pregnant
- Pink cleanroom suites for easy identification
- Pregnant women resting chairs

**Possible hazard types:**

- Physical: falling items, ionizing radiation, noise pollution (TWA > 85dB)
- Chemical: arsenic, lead, harm to reproductive functions
- Biological: microorganisms, tuberculosis
- Ergonomic: repetitive motions, lifting
- Stress: working of different shifts, potential exposure to violence

Human Resources Structure | Talent Employment Practices | Salary and Benefits | Learning and Development | A LOHAS Work Culture | Employee Welfare Committee | Occupational Health and Safety | Health Management Promotion Program

## Work Overload Management

In order to prevent diseases resulting from work overload, the health center collects feedback from employees regarding their personal statuses via online questionnaires. This data is analyzed using statistical methods to assess each employees' risk of cerebral or cardiovascular disease. Risk levels are determined via cross-referencing fatigue levels, psychological questionnaires responses, work schedules and job types, etc. Physician appointments are arranged for high-risk individuals to help manage risk levels and improve the health of our employees.

### Nuvoton Abnormal Workload Management



- » Exhaustion, psychological health survey
- » Physical examination findings
- » Work hours tracking
- » Work Mode



Risk of Overworking	10 year Cardiovascular Risk Assessment	Workload			
		Personal Exhaustion	Work Exhaustion	Overtime Hours Per Month	Work Mode
Low Workload	<10%	<50 points	<45 points	<45 hours	0-1 Items
Medium Workload	10-19%	50~70 points	45-60 points	45-80 hours	2-3 Items
Overworked	≥ 20	>70 points	>60 points	>80 hours	≥4 Items



- » **Low risk:** self-management
- » **Medium risk:** workload management education and “personal checklist”
- » **High risk:** consultation and advice from a physician



- » Tracing and recording of risk factors by a registered nurse
- » Monitoring of risk factors, adjustment of management level
- » Health promotion plan involvement
- » Maintaining of consultation and health records

## Employee Assistance Program (EAP) :

To establish a positive attitude and culture where employees are able to effectively solve any work and life issues, we have employed the help of third party professional mental health institutions to help establish a system for meeting the psychological health needs of our employees and increasing overall levels of happiness. In addition, employees that are identified as being at high risk for fatigue and stress based on statistical analysis of the annual health check questionnaires are referred to nurses for individual counseling sessions. Individuals that require further assistance are referred to the employee assistance program (EAP) for additional guidance from professional psychological counselors. Every employee is given a minimum of three hours of free professional psychological consultation services per year. In addition, we advocate seeking help immediately when encountering difficulties by maintaining complete confidentiality and protecting the privacy of any employees that



## Physical examination, Fatigue (personal, work) & mental health survey results

- Tiered management and categorization of employees by risk levels, using limited manpower to provide high risk groups with immediate care and support. 80% of stress is work related. Employees place a large amount of trust in the nursing staff and are welcome to find a nurse to help alleviate stress at any time.
- For those that require additional professional psychological counseling, the health center assists with transfers and referrals

Stage or Year surveyed	2018	2019	2020
Medium to high urgency	24	16	12
Group at high risk for fatigue	19	23	16
Group at medium risk for fatigue	13	10	5
Total	56	49	33

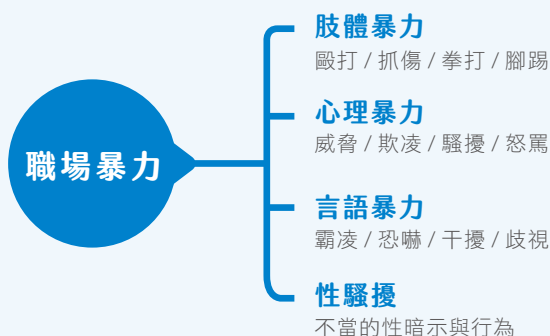
### Support mechanisms

- » Interviews/consultations(continued support, encouragement, listening..)
- » Exercise/release: involvement in clubs, lohas activities
- » Health improvement activities
- » Physician consultations, medical transfer and referral
- » Work adjustments
- » Employee assistance case (assistance for urgent cases)



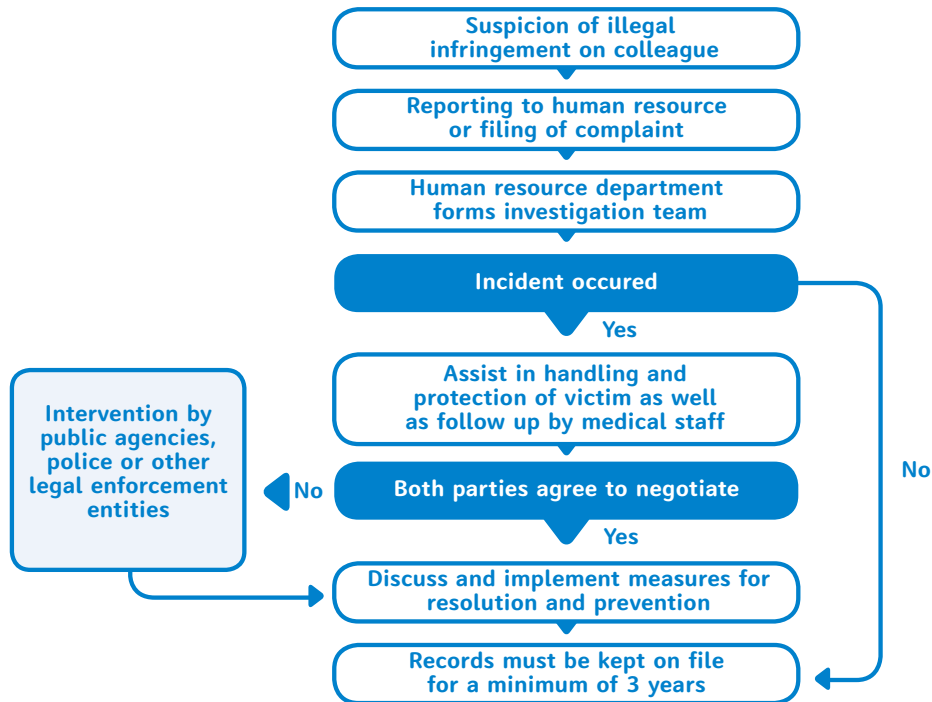
## Prevention of Illegal Infringements in the Workplace

Through the education and training at all levels of management, as well as employee training and education through the cloud, NuvoTon employees are taught to recognize behavioral changes and signs of potential violent behavior. Employees and managers also learn methods for preventing illegal infringements in the workplace such as maintaining open channels for communication, establishing handling procedures, placing safety first, seeking external professional medical/psychological assistance, and the help of other relevant professionals for follow up and assessment. Establishing a working environment and culture of safety, dignity, non-discrimination, mutual respect and tolerance, and equal opportunities is key to avoiding violent workplace incidents. In 2020, 100% of employees completed the relevant training (1331 participants).



### Illegal workplace infringements management

- » Filing of complaint and reporting
- » Handling (fair, just, respective of privacy)
- » Post incident handling  
(Victim protection, medical care and followup, punishment for assaulter, incident records)



## Epidemic Management Measures

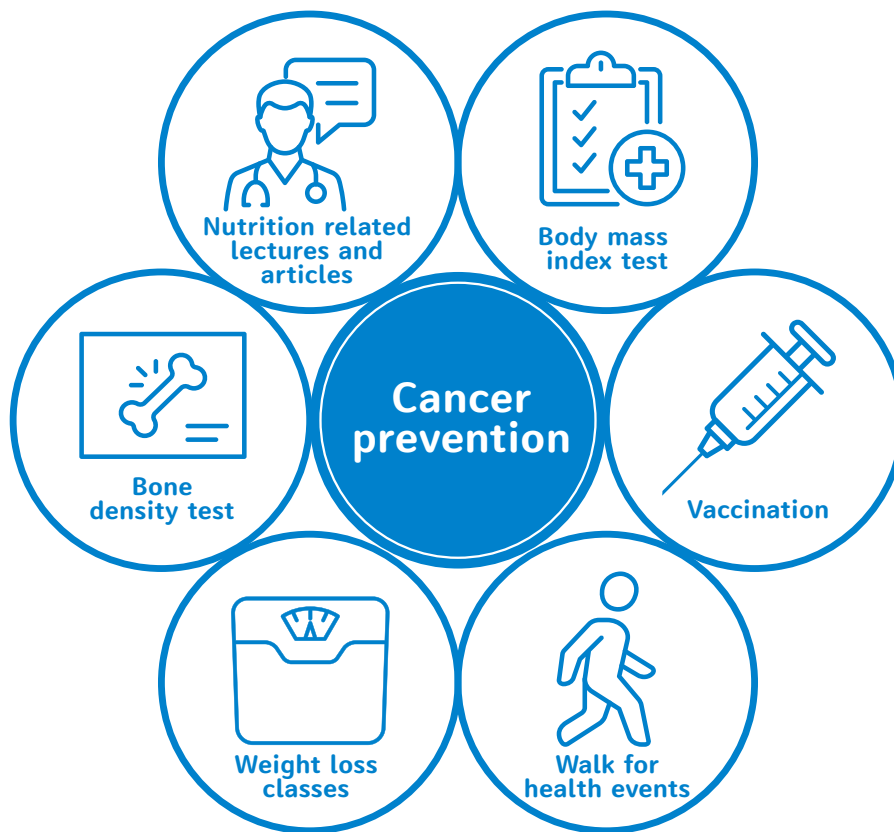
In response to the global epidemic caused by the spread of COVID-19, the Company has drafted a "COVID-19 Prevention and Response Plan". Additionally, a special epidemic prevention team has been established and deployed preemptively to help implement progressive epidemic prevention measures that are reviewed and revised as necessary during weekly meetings to ensure an early response to changes in the epidemic status internationally and domestically and safeguard the health of Nuvoton employees.

- » Personnel Management: Body temperatures of all personnel entering the factory are measured via infrared thermometers. Employees must wear face masks when entering, and anyone with a fever or cold or physical discomfort is encouraged to stay home and rest. Employees can report their personal statuses through the internal reporting website, and the health center will help track and follow up on their recovery to confirm that they are not infected by COVID-19.
- » Environment Disinfection: Weekly expansion of factory area disinfected, increased frequency of disinfection of public areas.
- » Work Groups and Work From Home: During severe outbreaks, employees are split into groups A and B and their offices are moved to different floors. Divisions that can complete their work from home are given priority to work from home to prepare fully for backup manpower.
- » Dining area zones and groups: In addition to the installation partitions between seats, different groups are allowed to use the dining area at different times.  
Management of foreign migrant workers: In addition to entrusting intermediaries to strengthen management and care of the health of our employees, dormitories are audited on a regular basis to ensure that social distancing practices are promoted and adhered to.
- » Health education and awareness: The epidemic prevention electronic newsletter is published on a weekly basis to enhance the awareness and educate employees on precautions to be taken during the epidemic.
- » Personnel business trip management: Updates regarding the epidemic are provided each week, and epidemic prevention gear is provided. Testing is provided upon return and employees are asked to self-monitor to ensure their health.
- » Material management: Maintain a list of items for epidemic prevention and a safe amount of stock at all times by purchasing preemptively to stay prepared to combat the epidemic.

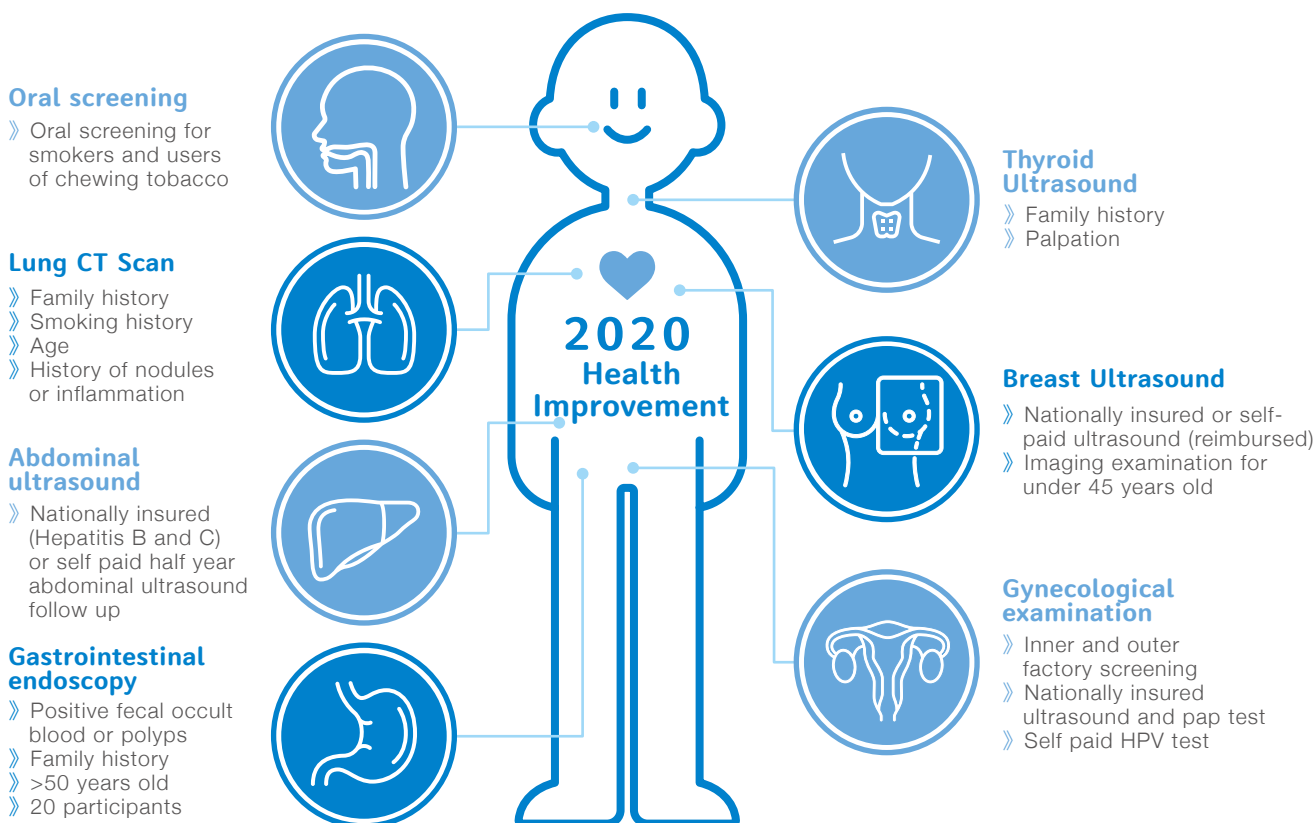
## Health Improvement Plan

Health employees are a company's most valuable assets. Healthy employees enjoy a higher quality of life and are able to work more efficiently. Therefore, we continue to promote and broaden the scope of our health improvement activities every year, including weight loss, walking for health, and etc. Combined with exercise focused walking clubs, mobile applications and groups to help keep tabs on each other, consistent exercise habits are achieved. The regular provision and holding of health and nutrition related lectures and articles help cultivate healthy eating habits and lifestyles. At Nuvoton, employees reading nutrition labels before purchasing food items is a common scene. Flu vaccinations and bone density checks, etc., are also held yearly. Having employees hold, host and participate in these events have helped strengthen the attention given to their health over time.

Due to the living habits of modern society, changes in diet and high stress work situations, lack of regular exercise, and obesity etc., the number of individuals battling high blood pressure, high cholesterol and high blood sugar have increased drastically. These types of chronic diseases are caused by a combination of factors, have a long latency phase, and early stage symptoms are often not evident. When symptoms appear, serious complications have often already occurred which can affect not just the quality of the individual but also their family members. The health center has preemptively analyzed existing data to identify those at high risk of high blood pressure, cholesterol and blood sugar, and arranged for physician consultations and regular measuring of blood pressure and blood sugar to maintain a record which doctors can use as reference. In addition, these individuals are educated on healthy food choices and diets that are low fat, low sodium, and high in fiber. Those that smoke are advised to quit. An accumulated 150 minutes of exercise is advised per week. Individuals are advised to start with an exercise they prefer such as power walking before transitioning to more rigorous activities. Reminders are provided to take their medicine and follow up with healthcare personnel regularly to prevent the occurrence of related complications that may affect their quality of life.



Cancer prevention is also one of the key programs that Nuvoton has continued to promote. According to reports on the top ten most deadly cancers published by the Health Promotion Administration, the health center screens for high-risk individuals based on their family history, age, personal history and other related data. High risk individuals identified receive support and reimbursement for receiving early diagnosis and treatment.









# Social Welfare

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> Welfare activities

# Social Welfare



## Welfare activities

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In 2020, Nuvoton continued to extend its care and support for rural students and children living in poverty. During our long standing year-end winter fundraising event, Nuvoton employees came together to express their gratitude for what they are blessed with. Therefore, although many of us at Nuvoton are far from wealthy, we wanted to do our part in helping those that need it, especially in terms of the education and care these children need to grow. After announcing the start of the fundraising event, more and more fellow employees at Nuvoton began to pitch in. Previously, we had helped the Hsinchu City Renai Home, Municipal Yuandongguomin Junior High School, Hsinchu Family Support Center, Yawen Listening and Speech Foundation, Syin-lu Social Welfare Foundation, Genesis Social Welfare Foundation, Shi-guang Special Education and Care Home, National Taiwan University Hospital Hsin-Chu Branch, economically disadvantaged patients at Mackay Memorial Hospital, and more. In 2020, donations quickly reached \$NTD340000 which went towards helping children in poverty receive medical care and the Hao Shenyu Kindergarten. We hope that the collective efforts made can help these children feel the warmth of society.

In response to the epidemic in 2020, in order to reduce contact between people, a large number of public welfare activities could not be held. It is our hope that we can get through this epidemic soon, and safely, so that we can once again spread the love.

## Environmental education and protection activities

Since 2016, Nuvoton has been a member of the Hsinchu Science Park Administration Environmental Education Partnership Program, actively assisting and participating in the promotion of environmental education activities. Nuvoton employees were encouraged to in the 2020 "Spring Planting for a Sustainable Earth" event held by the Environmental Protection Administration, and the 2020 "You Log In, We Plant Trees" online fundraising for COVID-19 prevention event. 47 employees participated in the events and the Environmental Protection Administration successfully planted 5000 trees in Hsinchu to help improve local air quality and aesthetics. In addition, for every participant that made a wish, \$NTD50 was donated to a charity organization, with a maximum of \$NTD50000 donated.





- In 2020, donations from Nuvoton employees were \$NTD340000. Total donations towards disadvantaged groups over the past 5 years reached over 4 million \$NTD. Totals are shown in following chart

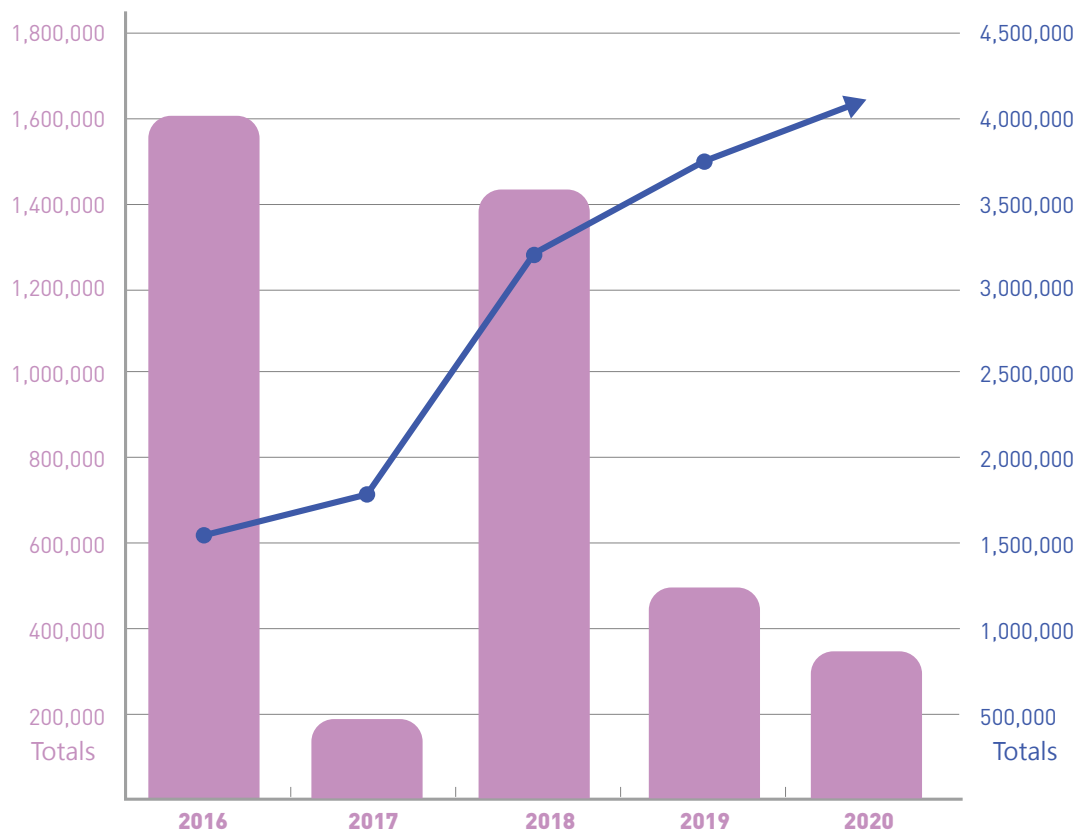


Chart: 2016-2020 Donation Totals

■ Donation amount ■ Cumulative amount









# Appendix

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- > GRI Standards Index Maps
- > Third Party Statement of Assurance

## GRI Standards (2016 version) Index Map

### • General Standard Disclosures

Scope	Index	Section	Page No.	Comments	Major Topic Disclosure
Organization Summary	102-1	3.1 Company introduction	16		
	102-2	3.3 Innovative Technology and Products	17		
	102-3	3.1 Company introduction	16		
	102-4	3.1 Company introduction	16		
	102-5	3.1 Company introduction	16		
	102-6	3.1 Company introduction 3.3 Innovative Technology and Products	16 17		
	102-7	3.1 Company introduction 3.6 Financial Performance	16 19		
	102-8	7.1 Human Resources Structure	60		
	102-9	5.5 Sustainable Supply Chain Management	37		
	102-10			No significant changes	
	102-11	4.6 Management	31		
	102-12	4.5 Legal Compliance	30		
	102-13	3.7 Association(Union) Membership	20		
	102-14	1. Words from the Chairman	04		
	102-16	4.4 Code of Conduct and Regulatory Compliance	27		
102-18	4.1 Corporate Governance Framework	24			
Identified Material Aspects and Borders	102-40	2. Description	09		
	102-41			The company has no group agreements	
	102-42	2.2 Communications and Participation of the Stakeholders	11		
	102-43	2.2 Communications and Participation of the Stakeholders	11		
	102-44	2.2 Communications and Participation of the Stakeholders	11		
	102-45	2. Description	09		
Stakeholder Engagement	102-46	2.2 Communications and Participation of the Stakeholders	11		
	102-47	2.2 Communications and Participation of the Stakeholders	11		
	102-48			No revisions made	
	102-49			No significant changes	
Report Profile	102-50	2.1 Report Description	10		
	102-51	2.1 Report Description	10		
	102-52	2.1 Report Description	10		
	102-53	2.1 Report Description	10		
	102-54	2.1 Report Description	10		
Content Index	102-55	2.1 Report Description	10		
Assurance/ Confidence	102-56	2.1 Report Description	10		
Management	103-1	2.2 Communications and Participation of the Stakeholders	11		
	103-2	2.2 Communications and Participation of the Stakeholders	11		
	103-3	2.2 Communications and Participation of the Stakeholders	11		

## • Special Metrics Disclosure

### Finance

Scope	Index	Section	Page No.	Comments	Major Topic Disclosure
(2016) Financial Performance	Management Policies	3.6 Financial Performance	19		✓
	201-1	3.6 Financial Performance	19		✓
	201-3	7.3 Salary and Benefits	62		✓
(2016) Market Position	Management Policies	7. Best Workplace	59		✓
	202-1	7.3 Salary and Benefits	62		✓

### Environment

Scope	Index	Section	Page No.	Comments	Major Topic Disclosure
Energy (2016)	Management Policies	6.2 Resource Conservation	43		✓
	302-1	6.2.1 Energy Conservation	44		✓
	302-3	6.2.1.2 Energy Density	44		✓
	302-4	6.2.1 Energy Conservation	44		✓
Water (2018)	Management Policies	6.2 Resource Conservation	44		✓
	303-1	6.2.2 Water Conservation	45		✓
	303-3	6.2.2.2 Water Recovery Rate and Total Amount	46		✓
	303-4	6.2.2 Water Conservation	45		✓
	303-5	6.2.2 Water Conservation	45		✓
Emissions (2016)	Management Policies	6.4 Greenhouse Gas Emissions Management	53		✓
	305-1	6.4 Greenhouse Gas Emissions Management	53		✓
	305-2	6.4 Greenhouse Gas Emissions Management	53		✓
	305-5	6.4 Greenhouse Gas Emissions Management	53		✓
Sewage and Waste (2016)	Management Policies	6.3 Pollution Prevention	47		✓
	306-1	6.3.3 Water Pollution Prevention	49		✓
	306-2	6.3.4 Waste Management	50		✓
Environmental Protection and Legal Compliance (2016)	Management Policies	4.4 Code of Conduct and Regulatory Compliance	27		✓
	307-1			No violations of environmental laws and/or regulations and fines occurred during the reporting period	✓
Suppliers Environment Assessment (2016)	Management Policies	5.5 Sustainable Supply Chain Management	37		✓
	308-1	5.5 Sustainable Supply Chain Management	37		✓

Social

Scope	Index	Section	Page No.	Comments	Major Topic Disclosure
Employer/Employee Relations (2016)	Management Policies	7. Best Workplace	59		✓
	401-1	7.2 Talent Acquisition	61		✓
	401-2	7.3 Salary and Benefits 7.6 Employee Welfare Committee	62 69		✓
	401-3	7.3 Salary and Benefits	62		✓
Employer/employee Relations (2016)	Management Policies	7. Best Workplace	59		✓
	402-1	The notice period for major operational changes at Nuvoton are handled in accordance with local laws and regulations			✓
Occupational Health & Safety (2018)	Management Policies	7.7 Occupational Health & Safety	71		✓
	403-1	7.7 Occupational Health & Safety	71		✓
	403-2	7.7.7 Occupational Hazard Metrics	77		✓
	401-3	7.8 Health Management and Improvement Program	79		✓
	401-4	7.7.2 Establishment of a EHS Committee and a Pandemic Prevention Command Team to Implement a Communication Mechanism	72		✓
	401-5	7.7.6 Employee Training and Emergency Response Management	76		✓
	401-6	7.8 Health Management and Improvement Program	79		✓
	401-7	7.7 Occupational Health & Safety	71		✓
	401-8	7.7.1 Positive Reinforcement Measures for EHS Management Contributions and Incentives	71		✓
	403-9	7.7.7 Occupational Hazard Metrics	77		✓
	403-10	7.7.7 Occupational Hazard Metrics	77		✓
Training & Education (2016)	Management Policies	7. Best Workplace	53		✓
	404-1	7.4 Learning and Development	57		✓
No Discrimination (2016)	Management Policies	7. Best Workplace	59		✓
	405-1	7.2 Talent Acquisition	61		✓
Forced Labor (2016)	Management Policies	7. Best Workplace	59		✓
	406-1	7.2 Talent Acquisition	61	This topic was not explicitly disclosed by the suppliers detailed in this report and will be added to supplier self-evaluations in the future.	✓
Customer Health and Safety (2016)	Management Policies	6.5 Green Products	55		✓
	416-1	6.5 Green Products	55		✓
Client Privacy (2016)	Management Policies	5. Client Services and Supplier Management	33		✓
	418-1	5.3 Client Privacy Protection	34		✓
Social and Economic Legal Compliance (2016)	Management Policies	4.4 Code of Conduct and Regulatory Compliance	27		✓
	419-1	4.4 Code of Conduct and Regulatory Compliance	27		✓
Anti-corruption (2016)	Management Policies	4.4 Code of Conduct and Regulatory Compliance	27		Self-disclosure
	205-2	4.4 Code of Conduct and Regulatory Compliance	27		Self-disclosure
Diversity of employees and equal opportunities (2016)	Management Policies	7. Best Workplace	59		Self-disclosure
	405-1	7.2 Talent Acquisition	61		Self-disclosure
Child labour (2016)	Management Policies	7.1 Human resource structure	60		Self-disclosure
	408-1	7.2 Talent acquisition	61		Self-disclosure
Marketing and labeling (2016)	Management Policies	6.5 Green products	55		Self-disclosure
	417-2	6.5 Green products	55		Self-disclosure



## Third Party Statement of Assurance



## ASSURANCE STATEMENT

### SGS TAIWAN LTD.'S REPORT ON SUSTAINABILITY ACTIVITIES IN THE NUVOTON TECHNOLOGY CO., LTD.'S CORPORATE SOCIAL RESPONSIBILITY REPORT FOR 2020

#### NATURE AND SCOPE OF THE ASSURANCE/VERIFICATION

SGS Taiwan Ltd. (hereinafter referred to as SGS) was commissioned by Nuvoton Technology CO., LTD. (hereinafter referred to as Nuvoton) to conduct an independent assurance of the Corporate Social Responsibility Report for 2020 (hereinafter referred to as the Report). The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, included the sampled text, and data in accompanying tables, contained in the report presented during on-site verification in the period of 03 June 2021 to 30 June 2021. SGS reserves the right to update the assurance statement from time to time depending on the level of report content discrepancy of the published version from the agreed standards requirements

#### INTENDED USERS OF THIS ASSURANCE STATEMENT

This Assurance Statement is provided with the intention of informing all Nuvoton's Stakeholders.

#### RESPONSIBILITIES

The information in the Nuvoton's CSR Report of 2020 and its presentation are the responsibility of the directors or governing body (as applicable) and management of Nuvoton. SGS has not been involved in the preparation of any of the material included in the Report.

Our responsibility is to express an opinion on the report content within the scope of verification with the intention to inform all Nuvoton's stakeholders.

#### ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE

The SGS ESG & Sustainability Report Assurance protocols used to conduct assurance are based upon internationally recognized assurance guidance, including the Principles contained within the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) 101: Foundation 2016 for report quality, and the guidance on levels of assurance contained within the AA1000 series of standards and guidance for Assurance Providers.

The assurance of this report has been conducted according to the following Assurance Standards:

Assurance Standard Options		Level of Assurance
A	SGS ESG & SRA Assurance Protocols (based on GRI Principles and guidance in AA1000)	n/a
B	AA1000ASv3 Type 1 (AA1000AP Evaluation only)	Moderate

Assurance has been conducted at a moderate level of scrutiny.

## SCOPE OF ASSURANCE AND REPORTING CRITERIA

The scope of the assurance included evaluation of quality, accuracy and reliability of specified performance information as detailed below and evaluation of adherence to the following reporting criteria:

Select specific reporting criteria included in the contract

Reporting Criteria Options	
1	GRI Standards (Core)
2	AA1000 Accountability Principles Standard (2018)

- AA1000 Assurance Standard v3 Type 1 evaluation of the report content and supporting management systems against the AA1000 Accountability Principles (2018) at a moderate level of scrutiny; and
- evaluation of the report against the requirements of Global Reporting Initiative Sustainability Reporting Standards (100, 200, 300 and 400 series) claimed in the GRI content index as material and in accordance with.

## ASSURANCE METHODOLOGY

The assurance comprised a combination of pre-assurance research, interviews with relevant employees, superintendents, CSR committee members and the senior management in Taiwan; documentation and record review and validation with external bodies and/or stakeholders where relevant.

## STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS affirm our independence from Nuvoton, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with ISO 26000, ISO 20121, ISO 50001, SA8000, RBA, QMS, EMS, SMS, GPMS, CFP, WFP, GHG Verification and GHG Validation Lead Auditors and experience on the SRA Assurance service provisions.

## FINDINGS AND CONCLUSIONS

### VERIFICATION/ ASSURANCE OPINION

On the basis of the methodology described and the verification work performed, we are satisfied that the specified performance information included in the scope of assurance is accurate, reliable, has been fairly stated and has been prepared, in all material respects, in accordance with the reporting criteria.

We believe that the organisation has chosen an appropriate level of assurance for this stage in their reporting.

## AA1000 ACCOUNTABILITY PRINCIPLES (2018) CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

### Inclusivity

Nuvoton has demonstrated a good commitment to stakeholder inclusivity and stakeholder engagement. A variety of engagement efforts such as survey and communication to employees, customers, investors, suppliers, CSR experts, and other stakeholders are implemented to underpin the organization's understanding of stakeholder concerns. For future reporting, Nuvoton may proactively consider having more direct two-ways involvement of stakeholders during future engagement.

**Materiality**

Nuvoton has established effective processes for determining issues that are material to the business. Formal review has identified stakeholders and those issues that are material to each group and the report addresses these at an appropriate level to reflect their importance and priority to these stakeholders.

**Responsiveness**

The report includes coverage given to stakeholder engagement and channels for stakeholder feedback.

**Impact**

Nuvoton has demonstrated a process on identify and fairly represented impacts that encompass a range of environmental, social and governance topics from wide range of sources, such as activities, policies, programs, decisions and products and services, as well as any related performance. Measurement and evaluation of its impacts related to material topic were in place at target setting with combination of qualitative and quantitative measurements.

**GLOBAL REPORTING INITIATIVE REPORTING STANDARDS CONCLUSIONS, FINDINGS AND RECOMMENDATIONS**

The report, Nuvoton's CSR Report of 2020, is adequately in line with the GRI Standards in accordance with Core Option. The material topics and their boundaries within and outside of the organization are properly defined in accordance with GRI's Reporting Principles for Defining Report Content. Disclosures of identified material topics and boundaries, and stakeholder engagement, GRI 102-40 to GRI 102-47, are correctly located in content index and report. For future reporting, it is recommended to have more descriptions of Nuvoton's involvement with the impacts for each material topic (103-1), and how efforts were given to mitigate the impacts.

It is recommended to have more disclosures on how Nuvoton integrate SDGs into Nuvoton's business strategies and how to identify potential opportunities related to SDGs which may have positive influence in enhancing the creating shared value of Nuvoton.

**Signed:**

**For and on behalf of SGS Taiwan Ltd.**



**David Huang**  
**Senior Director**  
 Taipei, Taiwan  
 22 July, 2021  
[WWW.SGS.COM](http://WWW.SGS.COM)



**AA1000**  
 Licensed Report  
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# nuvoTon

2020 Corporate Social Responsibility Report

