noton

Introduction

CH1 Sustainability Communication

> CH2 Green Products

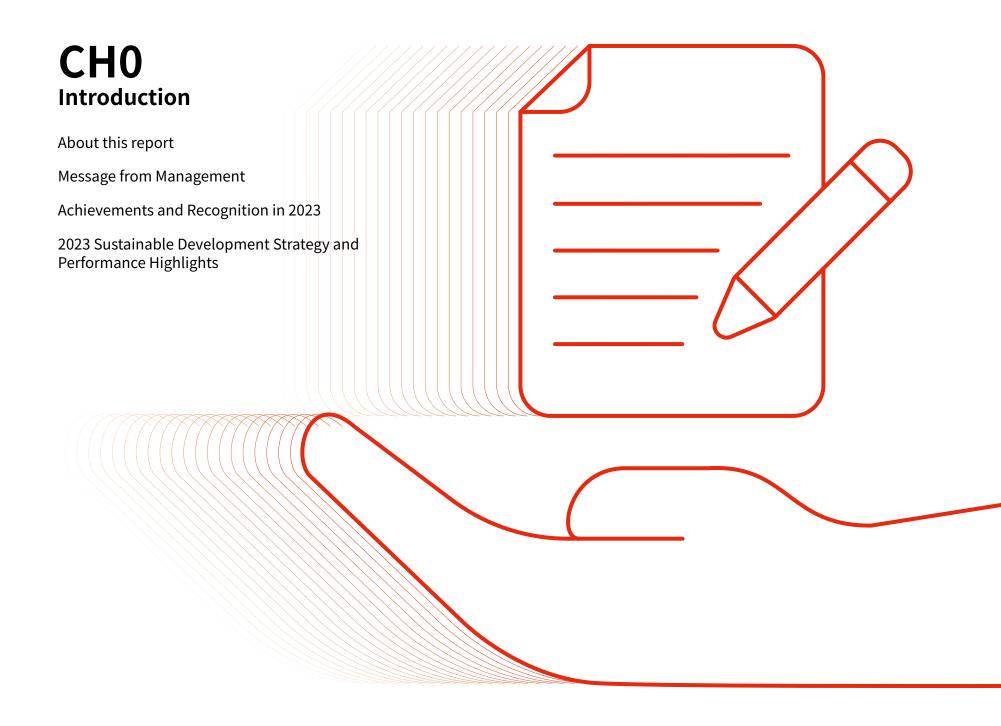
CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix



Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

> CH6 Social Prosperity

Appendix

About this Report

Framework and Writing Principles of the Report

Since 2021, Nuvoton Technology Corporation (hereafter referred to as "Nuvoton" or "the Company") has been voluntarily publishing Corporate Social Responsibility (CSR) reports, which were renamed Sustainability Reports in 2021. Since 2012, Nuvoton has also been publishing English reports to enhance its level of communications. Following the guidelines set forth by the Global Sustainability Standards Board (GSSB) in 2021, the Global Reporting Initiative (GRI) Standards, the industry-specific standards issued by the Sustainable Accounting Standards Board (SASB) in 2023, and the framework of the Task Force on Climate-related Financial Disclosures (TCFD), this 2023 report provides stakeholders with an understanding of Nuvoton's achievements in and plans for fulfilling environmental, social, and governance aspects (ESG).

Scope and Disclosure Period of the Report

The content and data disclosed in this report cover the fiscal year 2023 (from January 1 to December 31) for Nuvoton Taiwan and its subsidiary, Nuvoton Technology Corporation Japan (NTCJ). The former includes the Research and Development (R&D) Center in Hsinchu, as well as its offices in Zhubei, Taipei, and Tainan. The latter includes the Libo, Yuza, Niigata, and Nagaokakyo plants, marking the first inclusion of Nuvoton Japan within the scope of the report. Financial data is presented in New Taiwan Dollars, and the financial data of Nuvoton Japan is converted using the exchange rate of 1 Japanese Yen to 0.2079 New Taiwan Dollars, based on the exchange rate data from the Bank of Taiwan as of December 29, 2023 (the last trading day of 2023).

Issuance Dates:

Current Year: May 2024

Previous Year: June 2023

Next Year: Planned for June 2025

External Assurance

This report has been verified by an independent third-party organization, SGS Taiwan Ltd., to confirm compliance with GRI Standards (2021) and assurance at the moderate level according to AA1000AS TYPE I verification standard. The verification statement is included in the appendix of this report for reference.

Report Review and Management Process

Information or data disclosed in this report is provided by respective departments. After the completion of the Sustainability Report, it is submitted to department heads for confirmation and undergoes internal audit according to the operational procedures of sustainability reporting and assurance. Subsequently, it will be presented to the Board of Directors on July 30, 2024.

- Collection (each unit collects and provides relevant information and data for the reporting year)
- **Compilation** (consolidating the information and data provided by each unit to draft the annual report)
- Review (submitting the draft report to the unit supervisors for review of content and data)
- Finalization (after review by the Chairman and approval by the Board of Directors, the finalized report is published by the highest company official, the Chairman)

Feedback

If you have any feedback or suggestions regarding this report, please feel free to contact us through the following channels:

Nuvoton Technology Corporation

Address: No. 4, R&D Road 3, Science-Based Industrial Park, Hsinchu City 300, Taiwan

Phone: +886-3-5770066 ext. 23246

Fax: +886-3-5792606

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

> CH6 Social Prosperity

Appendix

Words from the Chairman

Looking back at the challenges of the past, particularly the supply shortages in 2021 and 2022, we recognize the compromise in our continuous strive towards becoming a hidden champion. However, the journey towards hidden champion status has no finish line, and it aligns seamlessly with our pursuit of business resilience.

To all dedicated colleagues in Nuvoton Taiwan and Japan, who tirelessly work to create the best interests for our shareholders and give back profits to society and the country, we possess a diversified product portfolio across eight business groups, three in Taiwan, including a 6" wafer fab, and five in Japan, utilizing our unique advantage in product diversification.

Therefore, in 2023, despite facing an overall market contraction and a challenging economic environment, thanks to the unwavering commitment and concerted efforts of Nuvoton employees, under the planning of our diversified across eight business groups, we leveraged our unique advantage in product diversification to smoothly transition into 2024. In the future, we should focus on connecting the key concepts of hidden champion status and business resilience, including market share, globalization, and closeness to customers, as three key priorities to drive our continued success.

Facing market uncertainties, we are committed to strengthening our market share, thereby solidifying the competitiveness of our product lines and laying the foundation for business stability and predictability.

Globalization brings both challenges and opportunities. Our diversified product supply will expand our global presence. Establishing a brand on an international scale and leveraging our extensive product portfolio to maximize opportunities.

Customers are at the core of our success. The value of Nuvoton comes from innovative ideas after communicating with our stakeholders and customers, carefully listening to their needs, and exceeding customer expectations and maintaining strong relationships are important components of our strategy.

In addition to striving to maintain our operational strength, since 2023, Nuvoton has set four main axes in social participation and focusing on climate change: "social welfare, diversity and inclusion, rural education, and environmental protection," maintaining our commitment to net-zero, actively investing resources to achieve our carbon reduction roadmap; and combining external partners and resources to exert social influence; continuing to strengthen the corporate governance structure, establishing a solid internal control system, and finally, through this sustainability report, illustrating our performance in various aspects. And maintaining closeness with stakeholders, continuously cultivating, and moving towards a net-zero future.

Chairman

Yuan-Mou Su



Introduction

CH1 Sustainability

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

> CH6 Social Prosperity

Appendix

Words from the President

In 2023, we faced global market fluctuations and economic downturns, but through demonstrating Nuvoton's resilience and teamwork, we successfully navigated a challenging year. Looking ahead, Nuvoton will continue to:

Adapt to evolving landscapes

As the world around us continues to rapidly change, in 2024, we prioritize enhancing our competitive edge, optimizing internal processes, and increasing productivity.

Get closer to the market, closer to customers

By fostering closer partnerships, we aim to respond more swiftly to customer needs and desires. Customer-centric innovation will guide us, with adjusted resource allocations to drive product and technological advancements, solidifying long-term competitiveness.

Embrace agility, embrace success

In the face of rapid change, we will be agile and bold, expanding our skill sets, and pursuing excellence and breakthroughs in our work.

Aligned with these strategic directions

Nuvoton will sustain innovation in existing product lines, actively expanding into solutions for electric vehicles, smart manufacturing, cloud computing, and renewable energy. This optimization of our product portfolio showcases Nuvoton's robust capabilities in innovation and technological development. Furthermore, Nuvoton views research and development innovation as momentum towards sustainable

transformation, leveraging advanced technology to conserve materials, enhance product execution efficiency, and reduce operational power consumption. For instance, our new 32-bit microcontrollers have reduced volume by 40% compared to the previous generation, with nearly half the power consumption during execution and standby, achieving advantages in chip power saving and size reduction.

Nuvoton's product innovation achievements have been recognized externally, notably with the high-performance NuMicro® M467 series microcontrollers, featuring network communication and robust hardware encryption capabilities. Optimized with Skymizer neural network technology, it delivers leading inference performance for highly efficient embedded systems, earning the EE Awards Asia 2023 - Best MCU/ Driver IC Product Award.

Nuvoton will continue to advance along the path of green products and green processes, pursuing operational growth while enhancing product efficiency and reducing environmental impact. Guided by the vision of being the "invisible champion of green semiconductor technology enriching human life," Nuvoton outlines its long-term strategy and industry layout. We remain committed to responsibly engaging stakeholders such as customers, investors, shareholders, and employees to achieve our

sustainable business goals.

President

Hsin-Lung Yang



Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Message from the President of Nuvoton Japan

This report is the first to include the activities of our subsidiary, Nuvoton Japan, within the scope of Nuvoton's ESG initiatives. In 2020, Nuvoton integrated the Panasonic semiconductor business which boasts a 60-year history, adding to our global R&D capabilities. Beyond focusing on the integration of finance, R&D, quality, environmental safety and health, and human resources, Nuvoton Japan, as an integral part of Nuvoton's global operations, also actively promotes the participation of our Japanese employees in implementing our three main pillars: commitment to the environment, our customers, and social contribution. This includes achieving a reduction of more than 50% in Scope 1 and Scope 2 emissions by 2030 compared to 2020, and collaborating with suppliers on reducing Scope 3 emissions. We are dedicated to developing smaller, low-energy, high-efficiency environmentally friendly products for our customers, with a goal of reducing new product energy consumption by more than 15% by 2025. We engage with local communities through cleanup activities and also attract potential outstanding employees through scholarships and student loans, with plans to increase the employment rate of people with disabilities in the future, demonstrating Nuvoton Japan's emphasis on and care for society.

The 2023 sustainability report, in addition to detailing our achievements and contributions in ESG, shows our commitment to sustainable development through cooperation with stakeholders. We aspire to achieve our vision, exert influence, and continue giving back to society.





Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Message from the Chairman of the Sustainable Development Committee of Nuvoton Taiwan

Nuvoton has set a long-term target of achieving net zero emissions by 2050 and has established short-, medium-, and long-term goals to actively respond to the global trend of net zero emissions. Nuvoton has implemented and certified an Energy Management System (ISO 50001) to reduce indirect CO_2 emissions caused by burning fossil fuels during electricity usage through systematic and traceable energy-saving plans.

For Scope 1 and 2, Nuvoton reviews its operations and manufacturing processes, installs greenhouse gas treatment equipment to reduce energy consumption, decrease emissions, and improve operational efficiency. Nuvoton is also actively increasing its renewable energy capacity, with its installed solar power system expected to generate 880,000 kWh of green electricity annually.

In Scope 3, the company continues to collaborate with suppliers to collect greenhouse gas inventory data across the supply chain and helps customers reduce energy consumption during product use through improved product performance, thus achieving energy savings and carbon reduction.

On the path to carbon reduction, Nuvoton aims not only to move quickly but also to progress alongside its partners in the value chain. Nuvoton adheres to a "people-oriented" philosophy, considering talent as key capital for sustainable development. The company emphasizes talent cultivation and development, strives to create a friendly workplace, and provides a safe and healthy working environment. By

implementing a comprehensive human resource management system and optimizing human resource integration, Nuvoton continually promotes a people-oriented corporate culture and enhances employees' sense of belonging.

Practicing sustainability is a long-term journey. Nuvoton will continue to enrich human life through green semiconductor technology and actively promote various carbon reduction measures. By collaborating with more partners who share ESG-related values, Nuvoton is committed to becoming a green enterprise dedicated to sustainable development.

Vice President

Kuang-Lun Lin,

Message from the Chairman of the Sustainable Development Committee of Nuvoton Japan

NTCJ is committed to environmental, social, and governance (ESG) activities to achieve a sustainable society and aims to be a company trusted by society. The year 2023 marked the beginning of NTCJ's ESG activities, during which we established a new system in collaboration with NTC Taiwan. This system is designed to advance the activities of Taiwan and Japan as a whole. We have established seven major sustainability working groups, each dedicated to disclosing the details of our corporate sustainability activities and performance to all stakeholders in a transparent and open manner to gain understanding and trust.

Through regular integration meetings among the seven working groups, we share progress on various activities and set future short-, medium-, and long-term goals. This promotes a unified direction for corporate sustainability management for both NTC Taiwan and Japan. We anticipate that, through solid planning, we can simultaneously grasp risks and opportunities, laying the foundation for achieving our goals. It is crucial to turn our aspirations into actions, continuously creating value through semiconductors to achieve sustainable development in human society, and working proactively with a sense of mission.

NTC has a clear vision: "Be a hidden champion in providing sustainable semiconductors to enrich human life." We will continue our efforts to contribute to the realization of a sustainable society.

Chairman of the Sustainable Development Committee / Assistant vice president, NTCJ

Naoki Nakanishi



noton

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Achievements and Recognition in 2023



Continued selected as one of the

"Top 100 Enterprises in Carbon

Competitiveness in 2023"

by Business Weekly.



DRIVING SUSTAINABLE ECONOMIES

Awarded a

"B Management"

level rating in the CDP Carbon
Disclosure Project for
"Climate Change."



I A.A DI

Included in the Taiwan Stock Exchange's

"Taiwan High Salary 100 Index"

constituent stocks.



Received the

2023 SGS ESG Award

for Sustainability Reporting Award from SGS Taiwan Ltd.



Won the **Silver Award** in the Electronics and Information Manufacturing Industry category for Sustainability Reporting at the 2023 Taiwan Corporate Sustainability Awards (TCSA).



The NuMicro® M467 series microcontroller won the

«Best MCU/Driver IC of the Year»

award at the 2023 EE Awards Asia.

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

2023 Sustainable Development Strategy and Performance Highlights

Promoting Green Technology





SDG 7 Affordable and Clean Energy

Achieved the installation of renewable energy capacity equivalent to 8% of contracted capacity (producing 880,000 kWh annually).



SDG 9 Industry, Innovation, and Infrastructure

- Nuvoton is the first embedded controller (EC) and super input/output (SIO) chip supplier to pass the U.S. Federal Information Processing Standards (FIPS) 140-3 certification.
- Accumulated over 4,500 approved patents globally.



SDG 12 Responsible Consumption and Production

- Generated approximately 8.62 billion NT dollars in green revenue.
- Introduced the new eBMC chip, reducing package size by 67% compared to the previous generation, reducing silicon material demand during chip manufacturing, and saving circuit board material and space in terminal system applications.
- Developing Ultra-low-power Next-generation Microcontroller MG51, execution power consumption is reduced by 35% to 40% compared to the previous-generation low-power microcontroller N76E003, extending battery life.



SDG 13 Climate

- Awarded a "B Management" level rating in the CDP Carbon Disclosure Project for "Climate Change."
- Conduct a climate risk assessment for Nuvoton in Taiwan and Japan, and issue the first TCFD report.

Fostering a Happy and Safe Workplace





SDG 1 No Poverty

- The goodwill initiative, "Read to Love," gathered a total of 944 second-hand books.
- In 2023, a total of 1,337 individuals participated in volunteer activities and responded to donation calls, resulting in a combined contribution of 1,201,062 New Taiwan Dollars. The total service hours amounted to 2.859 hours.



SDG 3 Good Health and Wellbeing

- Implemented contractor management and supervision, achieving a contractor injury rate of 0 for six consecutive years.
- A total of approximately 19.53 million NT dollars was disbursed for childcare subsidies from 2021 to 2023.
- The return-to-work rate after maternity leave was 91.6%, and the retention rate was also 91.6%.



SDG 4 Quality Education

■ Nuvoton Taiwan employees' total training hours reached 41,699.87 hours, with an average of 26.82 hours per person; Nuvoton Japan employees' total training hours reached 22,510 hours, with an average of 13.55 hours per person.



Accountable Governance





SDG 8 Decent Work and Economic Growth

- Included in the Taiwan Stock Exchange's "Taiwan High Salary 100 Index" constituent stocks.
- In 2023, the combined revenue was 35.348 billion NT dollars, with a net profit after tax of 2.42 billion NT dollars, and an after-tax earnings per share of 5.77 NT dollars.



Industry, Innovation, and Infrastructure

- Customer satisfaction response rate was 88%, with an overall average satisfaction score of 8.85.
- In 2023, the number of patent applications for Nuvoton Taiwan was 283, and the number of granted patents reached 305. For Nuvoton Japan, the number of patent applications was 204, with 125 patents granted.



SDG 12 Responsible Consumption and Production

Nuvoton Taiwan's local procurement amount reached a record high, accounting for 41.6% of the company's total procurement amount; Nuvoton Japan's local procurement amount accounted for 52% of the company's total procurement amount.



SDG 16 Peace, Justice, and Strong Institutions

Nuvoton Taiwan conducted the "Promotion of Corporate Integrity and Sustainable Development Guidelines" course, while Nuvoton Japan held five courses related to legal compliance, with a completion rate of 100% for both.

noton

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

CH5
Safe
Workplace

CH6
Social
Prosperity

Appendix

010

CH1 Sustainability Communication

- 1.1 Company Profile
- 1.2 Nuvoton's Values
- 1.3 Governance for Sustainable Development
- 1.4 Analysis of Material Topic and Stakeholder Communication

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

> CH6 Social Prosperity

Appendix

1.1 Company Profile

In the name of Nuvoton Technology Corporation: Nuvoton is the combination of "Nuvo" and "Ton." "Nuvo" in French is pronounced close to "Nouveau" (new). "Ton" in English is pronounced close to "Tang" as in the Tang Dynasty. The Tang Dynasty was one of the most prosperous dynasties in the history of China. The Tang Dynasty attained stellar achievements in international cultural exchange, economic trade, and technological innovation, making it the center of the world. Nuvoton Technology shall uphold the innovation spirit of excellence in development and the close customer relationship as well as converge talents around the globe to live up to the vision of Nuvoton—Be a hidden champion in providing sustainable semiconductors to enrich human life. Meanwhile, it signals the spirit of Nuvoton to usher in the whole new epoch like the Tang Dynasty in the IC industry.

Nuvoton Technology Corporation (Stock Code: 4919.TW) was founded to bring innovative semiconductor solutions to the market in 2008. Nuvoton Technology was spun-off as a Winbond Electronics affiliate in July 2008 and went public in 2010 on the Taiwan Stock Exchange (TWSE). Nuvoton Technology focuses on IC products in microcontroller, microprocessor, smart home, cloud security, battery monitoring, visual sensing, IoT applications, and semiconductor components, pioneering in the industrial, automotive, communication, consumer electronics, and computer markets. In addition, Nuvoton Technology owns a 6-inch wafer fabrication plant equipped with diversified process technologies to provide professional foundry services.

Nuvoton will adhere to our consistent but diversified corporate strategy and continue expanding our target markets and product applications to enhance our flexibility in facing market and environmental fluctuations. Meanwhile, we are committed to green innovation and sustainable development, promoting digital transformation to improve operational efficiency, and deepening collaboration with the global semiconductor supply chain and clients across various products. This approach will enable Nuvoton to continue creating new value in an ever-changing market. Nuvoton Technology has offices in the USA, Mainland China, Israel, India, Singapore, Korea, and Japan to strengthen regional customer support and global management.

Company Profile



Capital NT\$4,197,652,680



The World Number of Employees 3,658



d Number of Global Locations yees 3,658

Locations Revenue NT\$353.4 billion

Business Performance in 2023



Earnings per share NT\$5.77



Net Profit NT\$24 billion

Business Philosophy & Corporate Culture

With an agile capability in innovative technology, comprehensive product solutions, and excellent technical synergy combined, Nuvoton offers cost-effective products and better services to its clients on the basis of the existing solid foundation. It lives up the corporate culture of "Conduct Business with Integrity and Ethical Behavior; Accountable Team Work; Enthusiasm of Learning; Aggressively Innovate; Sustainable Contribution" in the various business activities, working toward the vision "Be a hidden champion in providing sustainable semiconductors to enrich human life."



noton

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

External Collaborations

Nuvoton actively participates in domestic and international industry and R&D technology associations. Through regular and irregular meetings with association members, it builds bridges of communication with the industry. Engaging in discussions with other industry leaders and expert scholars enables Nuvoton to gain insights into industry dynamics and future development trends, while also sharing its own experiences and gaining valuable insights. Participation in association activities also contributes to enhancing the company's brand image and visibility, garnering more recognition, increasing trust among customers and partners, and promoting business expansion and market competitiveness. In summary, participation in association activities is not only a responsibility but also a valuable opportunity and resource to enhance the company's professional image and market influence.

Organization Participated	Title / Status
JEDEC Solid State Technology Association	Member/Participation in the member meeting
IEEE Enterprise	Member/Participation in the member meeting
Global Semiconductor Alliance (GSA)	Member/Participation in the member meeting
PIDA GaN Power and Microwave Alliance	Member/Participation in the member meeting
Taiwan Compound Semiconductor and Equipment Industry-Academia Alliance	Member/Participation in the member meeting
Micro Sensors and Actuators Technology Consortium (MEMS Industry-Academia Alliance)	Member/Participation in the member meeting
The Allied Association for Science Park Industries (ASIP)	Member/Participation in the member meeting
Taiwan Electrical and Electronic Manufacturers' Association (TEEMA)	Member/Participation in the member meeting
The Chinese National Association of Industry and Commerce, Taiwan (CNAIC)	Member/Participation in the member meeting
Hsinchu Science Park Water and Electricity Supply Committee	Group member/Information reception
Hsinchu Science Park Chemical Accident Mutual Aid Group - Hsinchu City Team B	Group leader/Information reception

Organization Participated	Title / Status
Japan Electronics and Information Technology Industries Association (JEITA)	Member/Participation in the member meeting
Semiconductor Industry Association in Japan (JSIA)	Member/Participation in the member meeting
Japan Industrial Imaging Association	Member/Participation in the member meeting
Vehicle Information and Communication System Center (VICS)	Member/Participation in the member meeting
HDMI Forum, Inc.	Member/Participation in the member meeting
Video Electronics Standards Association (VESA)	Member/Participation in the member meeting
Congress of Japan Railway Cybernetics	Member/Participation in the member meeting
Japan ID Connect with Secure Authentication Promotional association (JICSAP)	Member/Participation in the member meeting
Japan Business Machine and Information System Industries Association (JBMIA)	Member/Participation in the member meeting
Japan Automotive ISAC	Member/Participation in the member meeting
The Japan Institute of Power Electronics	Member/Participation in the member meeting
The Institute of Electrical Engineers of Japan	Member/Participation in the member meeting
Japan Society of Refrigerating and Air Conditioning Engineers	Member/Participation in the member meeting
Edge Platform Consortium (EPFC)	Member/Participation in the member meeting
Nippon Electronic Device Industry Association (NEDIA)	Member/Participation in the member meeting

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

1.2 Nuvoton's Values



From IC design and production technology to product applications, Nuvoton continuously pursues providing customers with low-power, lighter green products, aiming to reduce environmental impact during the production process and create societal impact. For instance, through medical equipment, IoT devices, and smart city solutions. These products not only enhance efficiency and performance but also bring more convenience and accessibility to society, enhancing Nuvoton's long-term market competitiveness and seizing green business opportunities in the global market.



Product Types	Microcontroller ¹	Audio	Cloud Computing	Semiconductor Components	Image Sensing Technology	Battery Monitoring
Areas of application	• 5G • energy management • smart IoT • industrial control • edge Al • IoT security • base stations • servers • Smart Home • Communication Devices • Electric Vehicle Electronics • Consumer Electronics • Audiovisual Equipment • Gaming Devices	Smart industry smart robots conference systems Smart Appliances Smart Speakers Smart Home Entertainment Smart Cars Smart Interactive Toys	Edge computing remote management for server-specific purposes power management computer hardware monitoring Communication Devices (Mobile Phones and Laptops) Remote Work	Industrial equipment fiber optics communication Wearable Devices Smartphones Tablets	Autonomous mobile robots (AMR) human behavior recognition obstacle sensing Photographic Equipment Medical Endoscopes	Electric vehicles Home Appliances Fan Motors

1 This includes products from Nuvoton's Microcontroller Business Group and IoT with Security Business Group.

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

> CH6 Social Prosperity

Appendix

1.3 Governance for Sustainable Development

Sustainability Development Committee

Nuvoton is committed to becoming an "invisible champion enriching human life with green semiconductor technology." Under the leadership of its management, the company upholds integrity, innovation, and passion to continuously enhance its corporate value while keeping an eye on global trends, caring for social issues, and responding to stakeholder expectations. Nuvoton has devised a strategic framework for its vision from three dimensions of ESG (Environmental, Social, and Governance), aligning with action plans to implement the United Nations Sustainable Development Goals (SDGs). By integrating sustainability principles into its core capabilities, Nuvoton aims to foster new futures in talent, processes, and technology, thus creating better possibilities for society. Nuvoton is committed to achieving its sustainability vision by setting "sustainable operation" as its goal and adopting "innovation improvement" as its approach.

To ensure the adherence to sustainable business practices and establish a sustainable governance framework, Nuvoton has internally set up a Sustainability Development Committee. This committee serves as the highest governing body for the company's sustainable development operations. It is either chaired by the president or a senior executive appointed by the president, who is responsible for driving sustainability initiatives. The committee oversees the organization's sustainable impacts and sustainable development management policies in the areas of economy, environment, and people (including human rights). Working groups have been established in both Nuvoton Taiwan and Nuvoton Japan to address seven major functions, each tasked with setting short-, medium-, and long-term goals. These working groups are responsible for developing annual action plans, which are monitored quarterly by the Sustainability Development Committee. The committee chair regularly reports progress to the Board of Directors.





Introduction

CH1 Sustainability Communication

> CH2 Green Products

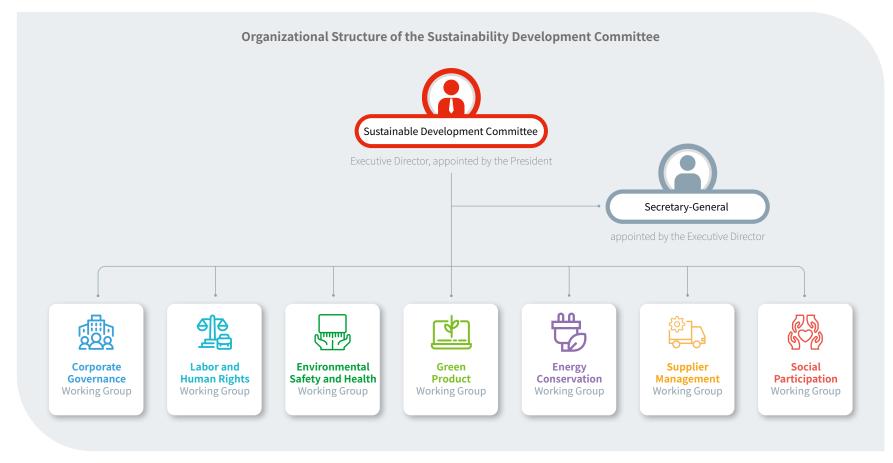
CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix



To implement corporate sustainability and management, Nuvoton promotes sustainable development in the areas of economy, governance, environment, and society. The Sustainability Development Committee has formulated the "Nuvoton Technology Corporation Sustainability Practice Guidelines," which have been approved by the Board of Directors as the highest guiding principles for Nuvoton's sustainability practices. These guidelines adhere to the Taiwan government's "Corporate Sustainability Practice Guidelines for Listed and OTC Companies." Upholding the concept of sustainable operation, Nuvoton continually monitors domestic and international sustainability guidelines and regulatory trends to ensure that its sustainability-related business activities comply with legal requirements.

The Nuvoton Sustainability Development Committee provides regular reports to the Board of Directors on ESG sustainability promotion, greenhouse gas emissions (including those in Taiwan and Japan), and the implementation of measures to balance the interests of stakeholders and promote integrity in operations². Board members offer timely guidance on various aspects of sustainability management and provide suggestions for long-term sustainability development directions.

² The communication and integrity management progress with stakeholders for the fiscal year 2023 was reported to the Board of Directors on October 31, 2023.

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

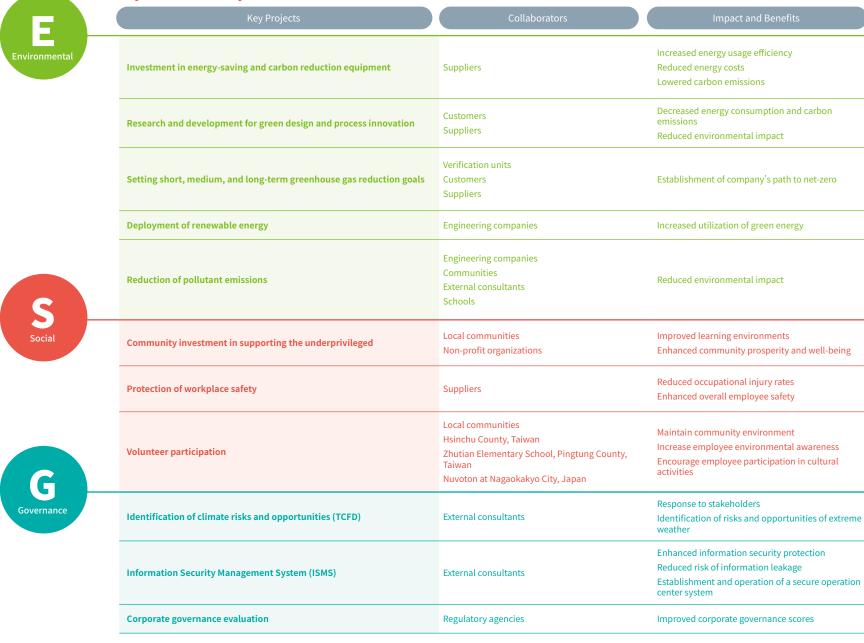
CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Key Sustainability Initiatives for 2023



Introduction

CH₁ Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

1.4 Analysis of Material Topic and Stakeholder Communication



Analysis of Material Topic

Nuvoton pursues corporate sustainability by referencing the 2021 version of the Global Reporting Initiative (GRI) Standards and the AA1000 Accountability Principles Standard issued by the Global Reporting Initiative (GRI). It identifies Material Topic based on the principles of inclusivity, materiality, responsiveness, and impact. Following the GRI 3: Material Topics 2021 framework, it constructs a process for analyzing Material Topic to assess the positive and negative impacts of these issues on the environment, economy, and people (including human rights).

Analysis Process of Material Topic

Establishing Sustainability Issues Database



Surveying Issues of Concern by Stakeholders



Evaluating Sustainability Impacts



04

Ranking and **Confirming Material Topic**



05

Approval of Material Topic



40 weighted surveys of

36 surveys for assessing

10 Material Topics

Presented to the Board of Directors for approval

Drawing upon past sustainability issue databases, we examine industry sustainability practices in alignment with international trends to establish this vear's sustainability issue repository. This repository encompasses sustainability issues across four dimensions: economic, governance, environmental, and social.

To gauge the level of stakeholder concern regarding sustainability issues, we distributed stakeholder concern survevs to various stakeholders. Simultaneously, senior executives from Nuvoton Taiwan and Nuvoton Japan. along with representatives from working groups, completed stakeholder importance surveys to ascertain the significance of various stakeholders to the company. Finally, weighted scores for stakeholder concern regarding sustainability issues were calculated based on the results of both surveys.

Representatives from senior management of Nuvoton Taiwan and Nuvoton Japan, as well as representatives from working groups under the Sustainability Development Committee, evaluated the positive and negative impacts and likelihood of occurrence of sustainability issues on the environment. economy, and population (including human rights) using sustainability impact assessment questionnaires.

Building upon the significance of impacts determined from the results of Phases 02 and 03 of the questionnaire by the Sustainability Development Committee, the top two issues from each of the economic, governance, environmental, and social dimensions were selected. considering adjustments to the company's sustainable development priorities, to form the final 10 Material Topic.

The Sustainability **Development Committee** reviewed the analysis results of the Material Topic and working groups formulated management policies for each material topic. Finally, these were presented to the Board of Directors for approval.

Introduction

CH1 Sustainability Communication

> CH2 Green Products

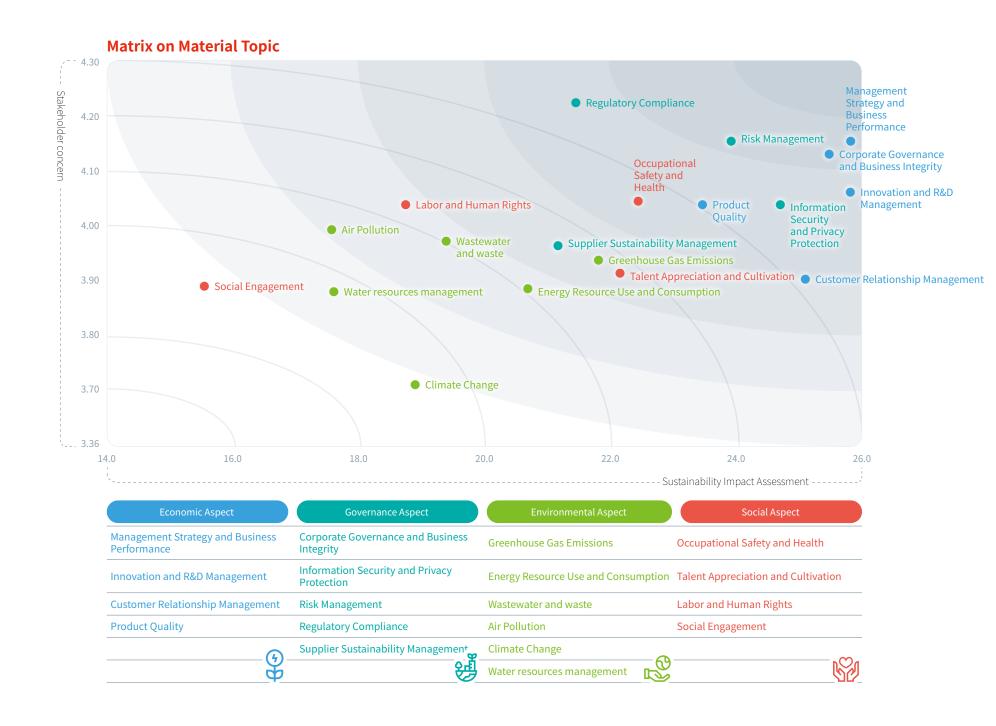
CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix



Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

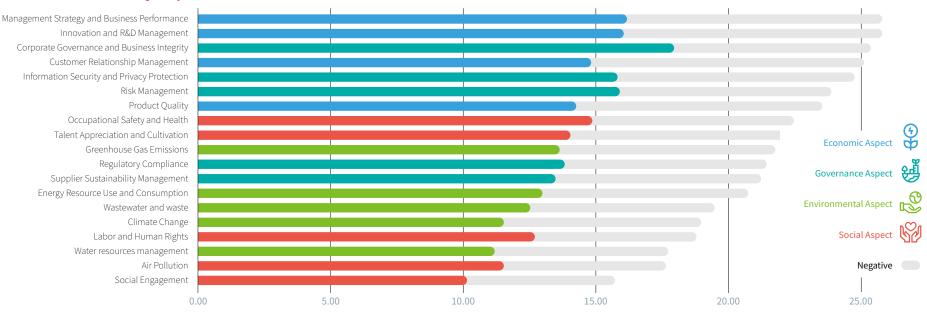
CH4 Environmental Sustainability

> CH5 Safe Workplace

> CH6 Social Prosperity

Appendix

Sustainability Impact Assessment



List of Material Topic* and Their Impact

Corresponding GRI Themes Aspects of Impact Description of Economic, Environmental, and/or Social Impact Related (Positive/Negative) (Response to Risks and Opportunities)

Material Topic: Corporate Governance and Business Integrity

Significance for Nuvoton: Corporate governance assessment of key issues is critically significant for Nuvoton, as it helps ensure the company's sustainable development, meet stakeholder expectations, comply with relevant regulations, effectively manage risks, maintain long-term competitiveness, and establish credibility. These elements are crucial for the company's long-term prosperity.

- · 205 Anti-Corruption
- 206 Anti-competitive Behavior

Positive

 Sound corporate governance and business integrity. Through the formulation and implementation of relevant rules and guidelines, establish standards of conduct for operational activities, generating positive impacts on the company, society, and the environment.

Negative

 Failure to execute comprehensive corporate governance and business integrity may lead to the misuse of company resources for activities detrimental to the company, society, and the environment, negatively impacting stakeholders, and even resulting in additional costs related to legal proceedings and lawsuits due to violations.

Economic

 Operating with integrity and good corporate governance principles are fundamental to business operations, instilling confidence in stakeholders towards Nuvoton, encouraging investment in and commercial transactions with Nuvoton, thereby positively affecting revenue and the economy.

Environmental

 Embracing the concept of integrity in business operations and having robust governance systems can prevent companies from engaging in environmentally harmful practices and reduce the occurrence of cost shifting to the environment due to economic considerations.

Social

Effective corporate governance systems and business integrity practices can prevent
companies from facing legal penalties or even closure due to violations, as well as
prevent the misuse of company resources, thereby safeguarding employees' rights and
ensuring equal treatment.

- 3.1 Corporate
 Governance
 3.3 Sustainable
- 3.3 Sustainable
 Business
 Management
- Sustainability Development Committee Corporate Governance Working Group
- Nuvoton Japan Internal Control Office, Nuvoton Japan Corporate Strategy Office

^{**} Changes in the List of material topics: Risk Management, Compliance with Laws and Regulations, and Customer Satisfaction were material topics for 2022. After this round of analysis, they did not enter the top rankings, but considering that all three are long-term issues promoted by the company, they will continue to be fully disclosed externally. New major issues added in 2023 include "Corporate Governance and Integrity Operation," "Sustainable Supplier Management," "Climate Change," "Occupational Health and Safety," and "Talent Appreciation and Cultivation." To comply with the guidance of GRI 3 on material Topics, the combination of talent attraction and retention, as well as talent development, is consolidated to address social aspects.

Introduction

CH1
Sustainability
Communication

CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

> CH6 Social Prosperity

Appendix

Corresponding GRI Themes

Aspects of Impact (Positive/Negative)

Description of Economic, Environmental, and/or Social Impact (Response to Risks and Opportunities)

Related Chapter

Lead Division

Material topic: Management Strategy and Business Performance

Significance for Nuvoton: Management strategy and business performance are key to Nuvoton's sustainable development. Developing comprehensive business strategies can maximize cost utilization and increase revenue, thereby improving corporate profits and operational efficiency.

- · 201-1 Direct economic value generated and distributed by the organization
- 201-3 Defined benefit obligations and other retirement plans

Positive

 Developing comprehensive short, medium, and long-term business strategies and goals effectively enhances operational performance and maintains market competitiveness.

Negative

 Failure to anticipate market changes may result in missed business opportunities, leading to loss of customers and orders.

Economic

 Collaborating with academia for early-stage research and implementation, maintaining Al development momentum, and increasing long-term revenue opportunities.

Environmenta

 Introducing digital technology into energy-saving applications and facility management can enhance operational efficiency and have a positive impact on the environment.

Social

 Developing applications for smart manufacturing to enhance efficiency, process quality, and product yield in work and production. 3.2 Operational Performance

· President's Office

Material topic: Innovation and R&D Management

Significance for Nuvoton: Innovation and research capabilities serve as the engine for Nuvoton's continuous growth.

· Customized Topic

Positive

 Continuously enhancing enterprise innovation and growth momentum by providing novel products and services and increasing market share.

Negative

 Failure to retain advanced technologies may result in the inability to provide innovative services or products in response to market changes, reducing market competitiveness.

Economic

 Practicing innovation, creativity, and entrepreneurship annually to promote the idea of industry digital prosperity through innovation.

Environmental

 Integrating environmental and intelligent technologies to expand applications can accelerate data integration and monitoring, reducing environmental impacts.

. . .

 Encouraging employees to contribute innovative ideas and rewarding selected proposals, actively promoting innovation through strategic and concrete actions. 1 Innovation in Research & Development

 Product Working Group of the Sustainability Development Committee

Material topic: Information Security and Privacy Protection

Significance for Nuvoton: Ensures the company's long-term stable development and customer satisfaction while protecting corporate and customer assets and reputation.

· Customized Topic

Positive

- · Enhancing customer satisfaction.
- · Creating business value and reputation.
- Complying with information security and privacy laws to avoid fines for violations.

Negative

- · May reduce business efficiency.
- · Increased costs due to security investments.
- Information security controls may affect customer experience.
- Human errors leading to information leakage, resulting in security risks and losses.

Economic

- Enhancing brand image and reputation in customers' minds to expand market size and explore new business opportunities.
- Increasing customer loyalty.
- · Avoiding legal risks and liabilities to maintain corporate reputation and image.

Environmental

 Securely maintaining and upgrading information equipment to improve efficiency, reduce energy consumption, and promote the development and application of green technology.

Social

 Ensuring the non-abuse, disclosure, and infringement of personal information of employees and customers to safeguard basic human rights and corporate social responsibility. Sustainable Business Management

- Information Security Advocacy and Social Engineering Education Training
- Nuvoton Japan Information Security Promotion Committee

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Corresponding GRI Themes

Aspects of Impact (Positive/Negative)

Description of Economic, Environmental, and/or Social Impact (Response to Risks and Opportunities)

Related Chapter

Lead Division

Material topic: Supplier Sustainability Management

Significance for Nuvoton: Suppliers provide Nuvoton with the raw materials necessary for its operations and production. Nuvoton is committed to pursuing mutual growth with its suppliers.

- · 204 Procurement Practices
- 308 Supplier Environmental Assessment
- 414 Supplier Social Assessment

Positive

 Establishing a sound supplier management mechanism and collaborating with suppliers to build a sustainable supply chain.
 Monitoring suppliers' implementation of human rights protection and achieving energy-saving, carbon-reduction, and costreduction objectives together.

Negative

 Failure to implement supplier sustainability management may result in the inability to monitor suppliers' human rights and environmental management practices, potentially leading to adverse impacts on the company, society, and the environment.

Economic

 Establishing a comprehensive supply chain management system to stabilize the supply of goods and improve operational efficiency, leading to increased revenue.

Environmental

 Collaborating with suppliers to enhance sustainability performance, including developing energy-saving and carbon-reduction plans. Neglecting environmental management in the supply chain may increase the risk of regulatory violations.

Social

 Incidents of human rights disputes in the supply chain may decrease customer trust and order quantity. 3.4 Sustainable Supply Chain Sustainability Development Committee Supplier Management Working Group

Material topic: Climate Change

Significance for Nuvoton: Nuvoton recognizes the importance of climate change on business sustainability. Considering the financial risks climate change may pose to operations, Nuvoton follows the TCFD's recommendations to identify climate-related risks and opportunities and incorporates them into the company's risk management framework as one of the sustainability development strategies.

· Customized Topic

Positive

 Integrating climate change into management practices, product research and development, and operational goals can help the company address the impacts of each climate risk and opportunity.

Negative

 Failure to integrate climate change into management practices, product research and development, and operational goals may result in an inability to proactively address climate-related risks and opportunities and mitigate the impacts of climate change.

Economic

 Assessing the impact of each climate risk and opportunity on development strategies and financial implications to expand the scale of green product development, enhancing competitiveness and industry chain value.

Environmental

- Improving the energy conversion efficiency of production equipment and reducing energy consumption.
- · Identifying the impact of extreme weather on supply chains and adjusting production line configurations in advance.

Social

 Addressing and implementing measures to mitigate the potential impacts of climate change on employees' work and life in advance.

4.1 Climate Change

 Responsibility lies with the financial unit and is jointly supervised by the Sustainability Development Committee.

Material topic: Greenhouse Gas Emissions

Significance for Nuvoton: The issue of greenhouse gas causing global warming affects the sustainability of the global ecology. Nuvoton cannot stay aloof and considers it a key issue for corporate sustainable development, while actively promoting energy conservation and carbon reduction.

 305 Greenhouse Gas Emissions

Positive

 Understanding the company's greenhouse gas emissions, effectively managing data, and planning future carbon reduction pathways and strategies.

Negative

 Failure to effectively manage greenhouse gas emissions increases the risk and expenditure of future carbon tax and fees

Economic

 Procuring energy equipment that meets the low-energy standards announced by the Energy Administration of the Ministry of Economic Affairs and establishing energysaving certification for energy equipment.

Environmental

 Conducting organizational greenhouse gas inventories and planning carbon reduction strategies.

Social

 Strengthening employees' awareness of environmental protection and energy conservation. 4.2 Greenhouse Gas Management Sustainability Development Committee Energy Conservation and Carbon Reduction Working Group

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Corresponding GRI Themes

Aspects of Impact (Positive/Negative)

escription of Economic, Environmental, and/or Social Impact (Response to Risks and Opportunities)

Related Chapter

Lead Division

Material topic: Energy Resource Use and Consumption

Significance for Nuvoton: Nuvoton adheres to the concept of "environmental sustainability" to minimize the environmental impact during product design, services, activities, and production. We commit to complying with energy-related regulations and meeting the needs of stakeholders, aiming to create a green and energy-efficient environment through the implementation of energy management systems.

· 302 Energy

Positive

 Enhancing the company's energy efficiency and implementing energy conservation and carbon reduction measures.

Negative

 Failure to effectively manage energy resource consumption may increase future risks and operational costs.

Fconomic

 Establishing an environmental management system to plan, implement, and inspect energy resource management, thereby improving energy resource utilization efficiency.

Environmental

 Installing solar energy-saving equipment to increase the proportion of renewable energy usage.

Social

 Strengthening employee awareness of environmental protection and energy conservation. 4.3 Energy Resources

Management and
Circular Economy

 Sustainable Development Committee Energy Conservation and Carbon Reduction Working Group

 Occupational Safety and Health Working Group

Material topic: Talent Appreciation and Cultivation

Significance for Nuvoton: The company's growth is built on the professionalism and management capabilities of its employees. Recruiting, retaining, and developing talented individuals is a critical task for the company. Human capital is an indispensable key factor in the company's operations, and maintaining talent superiority is synonymous with maintaining the company's competitiveness.

At Nuvoton, talent is recognized as a crucial cornerstone for the sustainable development of the enterprise. The company's technological advancements and competitive advantages are continuously maintained in the market due to outstanding talent.

- · 401 Labor Relations
- · 404 Training and Education

Positive

 The company emphasizes employee remuneration, benefits, development, and empowerment, leading to an activated corporate culture and improved service/ production efficiency and product quality, thereby enhancing the company's competitive advantage in the market.

Negative

 Neglecting employee remuneration, benefits, and development may result in talent loss, inadequate training, decreased product quality, or operational errors, leading to a decline in the company's competitiveness.

Economic

 Talent is the foundation of enterprise growth. By valuing and continuously developing employees, it is possible to enhance their innovation and efficiency, thereby increasing the company's competitiveness and revenue growth momentum.

Environmental

NA

Social

 Nuvoton values and actively cultivates its employees. This approach helps attract and retain talent, leveraging the benefits of talent to enhance employee engagement and satisfaction in their work.

5.2 Talent Attraction and Growth

 Sustainability Development Committee Labor Rights Working Group

Material topic: Occupational Safety and Health

Significance for Nuvoton: Occupational safety and health are not only a legal obligation for companies but also the cornerstone of establishing a healthy, safe, and sustainable corporate culture. By actively investing in and practicing occupational safety and health management, companies can achieve long-term sustainable operation.

 403 Occupational Safety and Health

Positive

 Through a well-planned occupational safety and health system, employee and contractor workplace safety and health can be effectively maintained, reducing direct and indirect damage caused by occupational accidents

Negative

 Lack of a comprehensive occupational safety and health system may jeopardize personnel safety and health, affecting the company's image, product quality, and labor relations.

Economic

 An effective occupational safety and health management system can help companies identify workplace risks, enabling them to prevent accidents in advance and reduce the probability of legal penalties due to occupational safety and health incidents.

Environmental

 A proper occupational safety and health management system can assist companies in managing hazardous substances, ensuring proper monitoring and disposal of organic solvents, dust, specific chemicals, and other hazardous substances in the workplace, thereby reducing environmental burden.

Social

 A good occupational safety and health management system can effectively protect the safety of contractors and employees, establishing a safe and healthy workplace. 5.3 Occupational Safety and Health

Sustainable
 Development
 Committee
 Occupational
 Safety and Health
 Working Group

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Material Topic and Action Plans

Nuvoton Taiwan and Nuvoton Japan each have seven working groups dedicated to addressing Material Topic and implementing action plans. These groups establish short, medium, and long-term objectives for managing their respective significant issues and are responsible for drafting annual action plans. Supervised by the Sustainability Development Committee, their progress is tracked quarterly. The committee chair regularly reports progress to the Board of Directors.



Material topic	Scope	Strategy	Achievements in 2023·····	2024 Short-Term Goal · · · · · · · · · · · · · · · · · · ·	· 2030 Mid- & Long-Term Goal
Economic and	Governance				
Corporate Governance and Business	Nuvoton Taiwan	Corporate governance Evaluation (Listed Companies) within 20%	All goals achieved Corporate governance evaluation within 6-20%.	1. Corporate governance evaluation (for listed companies) within 20%. 2. Continuously promote integrity management and compliance education and training, with a 100% pass rate for HQ personnel training exams.	Implementing sustainable development initiatives to enhance the company's social image and foster trust among investors and stakeholders, while continuously improving corporate governance performance.
Integrity	Nuvoton Japan	Convene Board of Directors Meetings Conduct Internal Audits Implement Compliance Education	All goals achieved	Adhering to relevant regulations on corporate governance and integrity management, conducting business operations in accordance with domestic and international standards.	Adhering to relevant regulations on corporate governance and integrity, and conducting business operations in accordance with domestic and international norms.
Management Strategy and Business Performance	Nuvoton ¹	Develop market strategies and explore new markets, continuously maintain the company's operational profitability status.	All goals achieved Revenue in 2023 was NT\$35.348 billion, with a post-tax net profit of NT\$2.42 billion	Regularly convene QBR meetings to review business performance and enhance operational efficiency.	1. Introduce new products or services to expand the market. 2. Establish supply chain resilience and sustainability. 3. Promote digital transformation to enhance business efficiency and innovation capability. 4. Continuously monitor and incorporate SDGs into the company's business strategy.
Innovation and R&D Management	Nuvoton Taiwan	1. The carbon reduction performance of energy-saving and carbon-reducing products decreased from 1.18 to 0.73 kg CO ₂ /grain in 2023. 2. The carbon reduction performance of energy-saving and carbon-reducing products decreased from 1.18 to 0.73 kg CO ₂ /grain in 2023.	(All goals achieved)	1. Continuously maintain the scale of patents, with 141 new patent applications filed. 2. Enhance product environmental benefits, set carbon footprint reduction targets for energy-saving and carbon-reducing products to exceed 38%.	Continuously innovate and develop products, creating environmentally friendly products. Enhance product execution efficiency and reduce power consumption during execution through advanced technology research and development.
	Nuvoton Japan	Develop environmentally friendly products that are compact, low-consumption, and highly efficient. By 2025, reduce the power consumption of new products by 15% compared to 2021.	New standards for Green Products certification have been established (details of related achievements in 2023 can be found in Chapter II Green Product Management Policy).	To maintain its leading position in the existing market and industry, Nuvoton will continue to introduce TMOS' slow Ron advanced technology for lithium-ion batteries in smartphones.	

¹ This includes both Nuvoton Taiwan and Nuvoton Japan.

Introduction

CH1 Sustainability Communication

CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Material topic	Scope	Strategy	Achievements in 2023·····	2024 Short-Term Goal · · · · · · · · · · · · · · · · · · ·	2030 Mid- & Long-Term Goal
Information Security and Privacy Protection	Nuvoton Taiwan	1. Implement and verify the new ISO27001:2022 international information security management system standard. 2. Strengthen endpoint security protection by implementing and deploying EDR and enhancing monitoring mechanisms. 3. All employees receive information security training, with a completion rate of over 97%.	All goals achieved 1. Follow ISO 27001 international standards for internal "gap analysis, asset inventory, risk improvement plans, and establishment of management norms that comply with international information security standards." 2. Complete the product evaluation of the "Endpoint Detection and Response (EDR) tool." 3. Achieve a 98% completion rate for all employees receiving information security training.	Pass the initial verification of ISO 27001:2022 with zero major non-compliance findings in the audit. All employees receive information security training, with a completion rate of 100%. Zero major information security incidents affecting company operations.	1. Enhance the information security incident monitoring mechanism and expand the deploymer of "Endpoint Detection and Response (EDR) tools." 2. Strengthen business continuity management to ensure uninterrupted operations during disruptive incidents. 3. Establish data protection management norms and continuously promote awareness among employed and introduce technical solutions to prevent incidents of sensitive data or personal information leakage. 4. Integrate Al-based information security solutions to detect internal and external threats and prevent hacking attacks, achieving an efficient response mechanism through automated processes to minimize the impact of information security incidents.
			All goals achieved		
	Nuvoton Japan	I. ISO 27001:2013 review, with zero major non-compliance findings in the audit results.	Achieve "zero major non-compliance findings in ISO 27001 audit results." Achieve "100% completion rate for		
		All employees receive information security training, with a completion rate of 100%.	all employees receiving information security training."		
		Zero major information security incidents affecting company operations.	Achieve "zero major information security incidents affecting company operations."		
	Nuvoton	Comply with regulations and customer specifications regarding the absence of		Achieve a 25% SAQ (Self-Assessment Questionnaire) completion rate for major suppliers BCP (Business	Achieve a 75% SAQ completion rate for major suppliers BCP.
		harmful substances in products. 2. Achieve a verification rate of 79% for	All goals achieved	Continuity Plan).	 Ensure 100% of major suppliers obtain ISO 14064 or equivalent international standards certification.
		major suppliers¹ obtaining ISO 14064 or equivalent international standards		Attain an 86% verification rate for major suppliers obtaining ISO 14064 or equivalent international standards	3. Have 100% of major suppliers publish ESG reports.4. Complete verification for 100% of major suppliers
	Taiwan	Taiwan certification. 3. Have 86% of major suppliers publish ESG reports.		certification.	through RBA VAP.
				Have 93% of major suppliers publish ESG reports.	
Supplier		 Complete verification for 50% of major suppliers through RBA VAP. 		 Achieve a 75% completion rate for major supplier BCP SAQ. 	
Sustainability Management		Supplier CSR activity status survey response rate 100% (every 2 years)		Supplier CSR activity status survey response rate 100% (every 2 years)	Supplier CSR activity status survey response rate 100% (once every 2 years)
		Supplier conflict mineral investigation response rate 100% annually		Supplier conflict mineral investigation response rate 100% annually	Supplier conflict mineral investigation response rate 100% annually
	Nuvoton Japan	3. Business continuity survey response rate 100% annually (every 2 years)	All goals achieved	3. Business continuity survey response rate 100% annually (every 2 years)	Business continuity survey response rate 100% annually (once every 2 years)
		High concern substance (presence of SVHC in purchased materials) investigation response rate 100% annually		High concern substance (presence of SVHC in purchased materials) investigation response rate 100% annually	High-concern substance (presence of SVHC in purchased materials) investigation response rate 100% annually
		5. Carbon neutrality investigation response rate 100%		5. Carbon offset investigation response rate 100%	5. Carbon neutrality investigation response rate 100% annually

¹ The primary suppliers consist of 14 companies, accounting for approximately 92% of the transaction volume in 2023.

noton

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Material topic	Scope	Strategy	Achievements in 2023·····	2024 Short-Term Goal · · · · · · · · · · · · · · · · · · ·	2030 Mid- & Long-Term Goal
Environmental					
Climate Change ²	Nuvoton Taiwan	1. Implement water-saving initiatives to reduce water usage by 1% compared to the previous year. 2. Execute energy-saving and carbon-reduction projects (engineering improvements take precedence) to continuously reduce greenhouse gas emissions by 25% compared to 2022. 3. Establish a carbon inventory platform to monitor the carbon emissions of each machine in real-time.	All goals achieved 1. Implement water-saving initiatives to reduce water usage by 2.8% compared to the previous year. 2. Execute energy-saving and carbon-reduction projects (engineering improvements take precedence) to continuously reduce greenhouse gas emissions by 25% compared to 2022. 3. Complete the Power BI inventory platform, which allows real-time monitoring of the carbon emissions of each machine.	1. Promote water-saving measures - Reduce water usage by 2.7% compared to the baseline year. 2. The installation of fluorinated gas reduction equipment resulted in a 16% annual reduction in fluorinated gas emissions compared to 2023. 3. Establish a carbon accounting system - Draft a plan for 2024 to propose business requirements.	1. Promote water-saving measures - By 2030, reduce water usage by 10% compared to the baseline year. 2. Install equipment to reduce fluorinated gas by 2030, reduce fluorinated gas emissions in the process by 70% compared to the baseline year. 3. Establish a carbon accounting system by 2025 - Utilize carbon accounting to determine internal product carbon pricing by 2030.
	Nuvoton Japan	Greenhouse gas emissions reduced by 40% compared to the baseline year	All goals achieved Greenhouse gas emissions reduced by 40% compared to the baseline year	Greenhouse gas emissions reduced by 49% compared to the baseline year	Greenhouse gas emissions reduced by 50% compared to the baseline year
Greenhouse Gas Emissions ³	Nuvoton Taiwan	I. Implement energy-saving and carbon reduction projects to continuously reduce greenhouse gas emissions by 20% compared to 2022. Install fluorinated gas reduction equipment - Fluorinated gas reduced by 40% compared to the previous year.	All goals achieved 1. Reduce greenhouse gas emissions by 25%. 2. Reduce fluorinated gas emissions by 48% compared to the previous year.	Achieve a 40% reduction by 2024 compared to 2020 targets.	 Achieve a 50% reduction by 2025 compared to 2020 targets. Achieve a 56% reduction by 2030 compared to 2020 targets. Long-term goal to achieve net zero emissions by 2050.
	Nuvoton Japan	Compared to the baseline year, greenhouse gas emissions have decreased by 40%.	All goals achieved Greenhouse gas emissions reduced by 41% compared to the baseline year.	Implement a plan to introduce solar power generation	Achieve net-zero emissions by 2050 as a long-term reduction goal
Energy Resource Use and Consumption	Nuvoton Taiwan	1. A decrease of 1% in electricity consumption compared to the previous year (2022). 2. Completion of solar energy equipment installation reaching contractual capacity of 8%. 3. Completion of ISO 50001 system establishment.	All goals achieved 1. Decrease of 1.8% in electricity consumption compared to the previous year (2022). 2. Completion of solar energy equipment installation reaching contractual capacity of 8%. 3. Completion of ISO 50001 system establishment.	2% decrease in electricity consumption compared to 2023.	10% decrease in electricity consumption compared to 2020 (baseline year).
	Nuvoton Japan	Average annual decrease in energy resource usage intensity of 1% compared to the previous year.	All goals achieved	Average annual decrease in energy resource usage intensity of 1% compared to the previous year.	Average annual decrease in energy resource usage intensity of 1% compared to the previous year.

- 2 The reference year mentioned here is 2020.
- 3 The greenhouse gas emissions target here refers to Scope 1 and Scope 2.

notorn

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Material topic	Scope	Strategy	Achievements in 2023·····	· 2024 Short-Term Goal · · · · · · · · · · · ·	2030 Mid- & Long-Term Goal	
Social						
Talent Appreciation and Cultivation	Nuvoton Taiwan	Turnover rate less than 8.5%. Providing training courses on individual professional skills and basic/intermediate managerial skills for employees. Enhancing knowledge of senior executives on political, economic situations, and future trends, offering relevant training courses.	1. Turnover rate of 5.6%. 2. 100% attendance for professional and managerial training courses. 3. Attendance rate of 90% for senior executive courses.	1. Strengthening employer branding. 2. Expanding recruitment channels. 3. Promoting career development. 4. Achieving 100% completion rate for professional skills inventory. 5, Average employee education and training hours reaching 30 hours	 Strengthening professional and managerial skills. Improving remuneration and benefits. Enhancing retention mechanisms. Achieving an 80% completion rate for training key position talents. Average employee education and training hours reaching 45 hours. 	
Nuvoton Japan Turnover rate less than 4%.	Turnover rate less than 4%.	All goals achieved Turnover rate of 3.6%				
		Training attendance rate for occupational safety education exceeding 80%.		Training attendance rate for occupational safety education exceeding 95%.	Continued maintenance of training attendance rate for occupational safety-related education.	
	Nuvoton Taiwan	Average incident rate per thousand persons decreased by 30% compared to the baseline average of 1.81.	All goals achieved	Average incident rate per thousand persons decreased by 40% compared to the baseline average of 1.81.	Average incident rate per thousand persons decreased by 60% compared to the baseline average of 1.81.	
		3. Zero cases of occupational diseases.		3. Zero cases of occupational diseases.	3. Zero cases of occupational diseases.	
Occupational		 Employee cancer screening rate exceeding 30%. 		Employee cancer screening rate exceeding 50%.	4. Employee cancer screening rate exceeding 75%.	
Health and		1. Work stoppage or above: 0 cases		1. Occupational safety and health general	1. Continued maintenance of occupational safety and	
Safety		2. No work stoppage: 3 cases		training attendance rate exceeding 90%.	health-related training attendance rate.	
		3. Severity rate (below 0.06) = 0		New employee occupational safety and health training attendance rate of 100%.	Continuously maintaining a 100% improvement rate for risk registration.	
	Nuvoton Japan		All goals achieved	3. Risk registration improvement rate of 100%.	3. Zero cases of occupational diseases.	
	Jupun			4. Zero cases of occupational diseases.	4. Achieving the target value of increasing suitable	
				5. Achieving the target value of increasing suitable lifestyle habits through the life clinic program: 3.56	lifestyle habits through the life clinic program: 4.0	

⁴ Calculates the proportions of lifestyle habits, such as diet, walking, sleep, smoking, etc., as they change over time. The target value is the average calculated based on the quantity of suitable habits.

Material Topic and Impact on Nuvoton's Value Chain

	Value Chain Impact Boundary [®]					
Material topic	Upstream Suppliers (Raw Materials/ Equipment)	Nuvoton Operations Research, Development, Wafer Foundry and Design		Downstream Packaging/Testing Customer Us		
Corporate Governance and Business Integrity	• 0	• 0	• 0	• 0	• 0	
Business Strategy and Performance	• 0	• 0	• 0	A △	A △	
Innovation and R&D Management	A △	• 0	• 0	• 0	• 0	
Information Security and Privacy Protection	A △	• 0	• 0	• 0	• 0	
Supplier Sustainability Management	• 0	• 0	• 0	• 0	• 0	
Climate Change	A △	A \(\triangle \)	• 0	A △	A △	
Greenhouse Gase Emissions	• 0	A \(\triangle \)	• 0	A A	• 0	
Energy Resource Use and Consumption	A △	A \(\triangle \)	• 0	A △	• 0	
Falent Appreciation and Cultivation	A △	• 0	• 0	A A	A △	
Occupational Safety and Health	A △	• 0	• 0	A \(\triangle \)	A \(\triangle \)	

[💥] Significant positive impact: 🌒 ; Significant negative impact: 🔘 ; Potential positive impact: 🛦 ; Potential negative impact: 🛆

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

CH6 Social Prosperity

Appendix

Stakeholder Communication

Nuvoton follows the five assessment principles of the AA1000 Stakeholder Engagement Standard (AA1000 SES), including responsibility, influence, tension, diverse perspectives, and dependency. We identify seven categories of key stakeholders, including employees, customers, suppliers/contractors, government agencies/public associations, shareholders/investors, community groups and non-profit organizations, and the media. We have a dedicated investor relations unit to respond to investors' inquiries or letters periodically and establish diverse and transparent communication channels to effectively understand stakeholders' concerns regarding economic, environmental, and social (including human rights) issues and specific opinions, providing timely responses to stakeholders' suggestions. After communication and negotiation with stakeholders and relevant units, the responsible units track the significance of issues and regularly report to the Board of Directors.

The company offers a comprehensive complaint mechanism for stakeholders. Relevant units collect and manage complaints, and corresponding management units track them. Major incidents are discussed at functional committees. For significant sustainability issues, the Sustainability Development Committee summarizes ESG performance indicators and major sustainability themes of the year, which are then included in the agenda of the Board of Directors for communication and feedback. The Sustainability Development Committee reports the results of ESG performance indicator implementation and annual major sustainability themes to the Board of Directors.

Stakeholder Categories	Significance to Nuvoton	Key Concerns	Communication Channels and Frequency	2023 Communication Achievements and Responses to Issues
Employees	Employees are vital assets to Nuvoton and are crucial to supporting the company's competitiveness.	Corporate Governance and Business Integrity Business Strategy and Performance Talent Appreciation and Cultivation Occupational Safety and Health	 Labor-management meetings (quarterly) Supervisor quarterly meetings (quarterly) Supervisor operational intelligence sharing sessions (quarterly) Employee welfare committee (quarterly) Employee suggestion box (irregular) Complaint mailbox and hotline (irregular) Internal website (irregular) Various organizational meetings (irregular) Training courses (irregular) 	 Conducted 4 labor-management meetings Conducted 4 supervisor quarterly meetings Held 4 supervisor operational intelligence sharing sessions Organized 4 Town Hall Meetings Addressed 7 internal communication channel issues Published 52 articles on the employee website homepage Issued TO ALL announcements on the internal website
Customers	Customers are the main source of Nuvoton's revenue. The company is committed to providing the highest quality products and services.	Corporate Governance and Business Integrity Business Strategy and Performance Innovation and R&D Management Information Security and Privacy Protection Supplier Sustainability Management Climate Change Greenhouse Gase Emissions Energy Resource Use and Consumption	 Customer satisfaction surveys (annually) Customer surveys or on-site audits (irregular) Company website member area (irregular) Technical seminars (irregular) Telephone, email (irregular) 	Organized a total of 42 online or offline high-value innovation product customer training seminars and communicated with potential customers, discussing market trends and product/technical support information, receiving favorable feedback from customers Ensured smooth communication channels such as company website emails, chat windows, technical communities, offline telephones, and daily visits and utilized the D365 customer service system to optimize the immediacy of technical support knowledge base and responses Continuously updated online digital documents, audio, and technical support resources to assist customers in rapid product development

Introduction

CH1 Sustainability Communication

> CH2 Green Products

CH3 Excellence in Governance

CH4 Environmental Sustainability

> CH5 Safe Workplace

> CH6 Social Prosperity

Appendix

· Completed annual evaluations of major suppliers · Corporate Governance and Business Integrity · 100% of suppliers signed the RBA Code of Conduct Suppliers provide the raw · Innovation and R&D Management materials needed for the · 100% of suppliers signed the "Conflict Minerals Declaration" company's operation and · Supplier Sustainability · Supplier ESG & RBA self-assessment 100% of suppliers signed the "Hazardous Substance Declaration" production. Nuvoton is Management (annually) · 86% of major suppliers published ESG reports committed to pursuing · Climate Change mutual growth with Suppliers / · Conducted greenhouse gas emission surveys (ISO 14064) for major suppliers suppliers. · Greenhouse Gase Emissions Contractors · Collected baseline and reduction targets for greenhouse gas emissions from · Occupational Safety and Health major suppliers · Corporate Governance and Nuvoton will comply · Official documents (irregular) Business Integrity · Participated in 12 meetings of environmental and safety regulatory with local government · Regulatory briefing sessions (irregular) · Climate Change regulations and actively · Communication through industrial cooperate with relevant · Received 18 official documents from the Science Park Association · Greenhouse Gase Emissions associations and regulatory authorities policies to eliminate any Received 9 documents related to solar photovoltaic projects · Energy Resource Use and Government Agencies / in the science park (irregular) form of illegal behavior. Consumption Public Associations · Held quarterly online analyst meetings in 2023, totaling 4 sessions with a cumulative attendance of over 500 people. · Annual General Meeting (AGM) (annually) · Conducted 1 shareholder meeting · Analyst Meetings (quarterly) Corporates or individuals · Business Strategy and Performance · Disclosed annual reports once · Annual Financial Report (annually) who have invested or · Corporate Governance and are willing to invest in · Disclosed consolidated financial reports 4 times · Company Website (periodically) Business Integrity Nuvoton. · Monthly revenue announcements 12 times · Stock Market Updates (regularly/ · Periodically disclosed significant company information periodically) · Regularly disclosed operational information in accordance with the law · Corporate Governance and · Conducted 2 community visits Nuvoton seeks social Business Integrity · Company Website (periodically) · Organized 2 blood donation activities, totaling 112 bags of blood donated harmony and progress, · Greenhouse Gase Emissions · Email (periodically) focusing on local · Held 1 lecture by a renowned individual · Energy Resource Use and · Facebook Fan Page/Instagram community issues and · Organized 1 second-hand book donation event "Reading, Loving, Sharing" Consumption (periodically) Community and Nonbuilding a better society. · Conducted 5 campus forums profit Organizations · Talent Appreciation and Cultivation The media serves as a bridge between Nuvoton · Corporate Governance and and its stakeholders, · Analyst Meetings (quarterly) Business Integrity ensuring timely access to · Issued press releases for major · Conducted 4 analyst meetings information released by · Talent Appreciation and Cultivation operational news (irregularly) Nuvoton, and assisting · Published 30 press releases · Innovation and R&D Management Issued press releases for exhibitions/ Nuvoton in disclosing awards (irregularly) positive sustainaibilty Business Strategy and Performance information to stakeholders.

* Taiwan Power Company's power-related meetings: 2 sessions; Hsinchu Science Park Administration meetings: 9 sessions; Industrial Association meetings in the park: 1 session; Total: 12 sessions.