

2019 CORPORATE SOCIAL RESPONSIBILITY

REPORT



winbond
We Deliver

Table of Contents

- 
- About this Report 4
 - Message from the Chairman and CEO 6
 - Honorable Records for the Year 9
 - Sustainable Development Goal and Annual Performance 10

- 
- 1.1 Get to know Winbond 12
 - 1.2 Sustainable Development Strategy 18
 - 1.3 Communication with Stakeholders and Response 23
 - 1.4 Management of Material Topics 26

I. Sustainable Business Operations

11

- 
- 2.1 Governance Overview 33
 - 2.2 Operating Performance 36
 - 2.3 Ethical Corporate Management 37
 - 2.4 Risk Management 39
 - 2.5 Information Security Management 42

II. Ethical Corporate Management

31

- 
- 3.1 Product Quality 45
 - 3.2 Customer Privacy and Satisfaction Level 49
 - 3.3 Innovation and Patents 50
 - 3.4 Sustainable Management of Supply Chain 54

III. Excellent Quality

43

- 
- 4.1 Green Manufacturing 62
 - 4.2 Energy and Greenhouse Gas Management 66
 - 4.3 Water and Waste Management 71
 - 4.4 Hazardous Substance Management 75
 - 4.5 Air Pollution Control 76

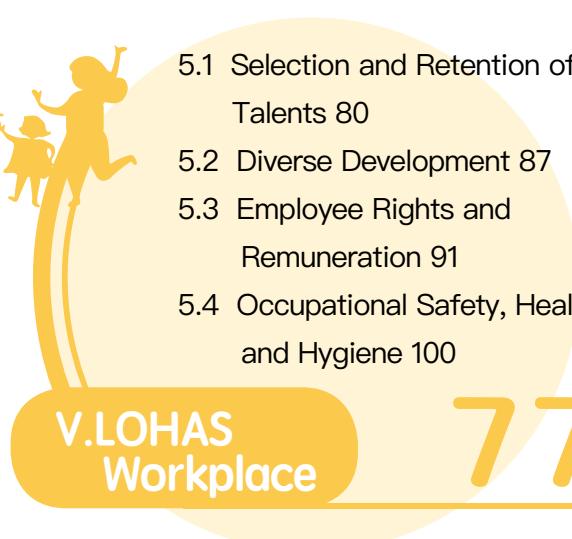
IV. Environmental Sustainability

61

- 
- 6.1 Caring for Children and Youngsters 112
 - 6.2 Supporting the Disadvantaged 115
 - 6.3 Public Welfare Promotion 117
 - 6.4 Academic Sponsorships 118
 - 6.5 Art and Cultural Activities 118
 - 6.6 Highlights Project Love in Public Welfare Small Sapling Deep-rooted Project 118

VI. Common Good

111

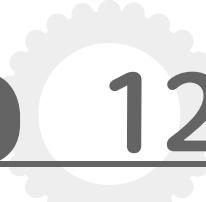
- 
- 5.1 Selection and Retention of Talents 80
 - 5.2 Diverse Development 87
 - 5.3 Employee Rights and Remuneration 91
 - 5.4 Occupational Safety, Health and Hygiene 100

V.LOHAS Workplace

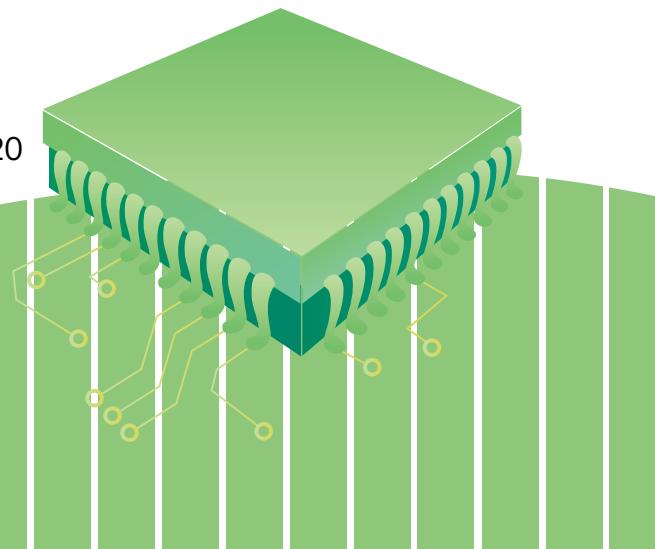
77

VII.Appendix

120

- 
- Appendix I : GRI Standards Comparison Table 120
 - Appendix II : Independent Third-Party

Assurance Statement 125



About this Report

● About this Report

Winbond Electronics Corporation (hereinafter referred to as Winbond) has issued a "Corporate Social Responsibility Report" since 2015. The CSR report transparently and comprehensively expresses the impact of Winbond's business operations on the ESG aspects (environmental, social, and governance aspects) and Winbond's related actions in regard to sustainability matters. This Report discloses Winbond's efforts not only in its sustainable management but also in social justice, community well-being, employee development, and environmental protection. The Company also implements relevant measures through dissemination and promotion of operational activities to respond to the expectations and demands of stakeholders for sustainable development and management.

● Scope

The information of Winbond disclosed in this report covers the period from January 1, 2019 to December 31, 2019. The scope of the report includes the head office in Taiwan. In addition to the data of Winbond, the report also includes important information from suppliers to demonstrate Winbond's influence and responsibility on the industry value chain. There was no information restatement in this year's "2019 Corporate Social Responsibility Report" compared with the "2018 Corporate Social Responsibility Report" of the previous year.

● Management Approach

Internal Audit	<ul style="list-style-type: none">• The contents of this report are reviewed by Winbond Corporate Social Responsibility (CSR) Implementation Committee and representative officers from all departments.• The President's Office is responsible for the proposal and implementation of policies, systems or related management policies, and specific promotion plans for corporate social responsibility, and it shall report to the board of directors on a regular basis.
External Audit	<ul style="list-style-type: none">• The financial information is verified by the Deloitte Touche Tohmatsu Limited and the reporting currency is New Taiwan dollar.• In June 2020, this report was commissioned to the British Standards Institution Taiwan Branch (BSI Taiwan) to conduct independent verification based on the AA 1000 AccountAbility Principles with 2018 Addendum Type 1 Level of Assurance, to verify that it is in compliance with the "core" options of the Global Reporting Initiative (GRI) standards. For relevant detailed results, please refer to the independent assurance statement in the appendix of this report.• ISO 14064-1 greenhouse gas emissions have been verified by the British Standards Institution Taiwan Branch (BSI Taiwan).• IATF 16949, ISO 14001, ISO 45001 and TOSHMS acquired the verification from DQS Taiwan Inc.

● Reporting Guidelines and Principles

Winbond searches for domestic and international important subjects regarding economy, environment and society, and understands the concerned subjects of stakeholders with major analysis. Winbond invites various departments to conduct interviews to understand the implementation results and takes relevant issues as the focus of the published information in this report. This report is in accordance with the core options of the GRI Standards issued by the Global Reporting Initiative.

● Time of Publication

Winbond publishes its corporate social responsibility report on a yearly basis. This is the sixth publication. In response to energy saving, carbon reduction, environmental protection and love for the earth, Winbond is fully adopts the paperless operations. Just like the report published in the past, this report is published on Winbond's official website in electronic form for all interested parties.

Current publication version: will be published in June 2020

Last publication version: published in June 2019

The next publication is expected to be in June 2021

● Feedback

Please contact us for any questions or suggestions regarding this report. The contact information is as follows:

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Company website: www.winbond.com



Message from the Chairman and CEO

In 2019, Winbond maintained its diversified market layout, customer partnership relations, high value-added products, and production capacity policies with flexibility and prudence, and continuously demonstrated a stable operating performance. The Company is well recognized in the industry for its promotion of sustainable development and corporate social responsibility. For example, Winbond was chosen as one of the constituent stocks for the Taiwan High Compensation 100 Index and the Taiwan Employment 99 Index, received the 2019 Happy Enterprise Award in the Technology Industry (organized by the 1111 Human Resource Bank), won the Golden Tower Award for Continuous Improvement Competition issued by the Corporate Synergy Development Center, and received the TCSA Corporate Sustainability Report Gold Award. In 2019, Winbond's overall performance in the economic, social, and environmental aspects had wholly answered to the demands and expectations of its all stakeholders.

At the beginning of 2020, many enterprises had to face problems such as factory closures and supply chain shortage crisis as a result of the global COVID-19 pandemic. Winbond paid close attention to the development of the epidemic by monitoring the manufacturers' production and operation status on a daily basis, and increased the safe level of inventory in order to provide timely response to emergency incidents. The Company also conducts strict internal and external measures in fighting against the coronavirus, including the creation of notification procedures,



infrared body temperature measurements, visitor management, spacing out meal times, and regular disinfection, etc., to ensure the safety of employees and to prevent the product supply from being affected by the epidemic; thus, maintained normal operations.

Winbond has stayed true to its corporate culture of "Ethical Corporate Management, Accountable Team, Enthusiastic Learning, Active Innovation, and Sustainable Contribution," which form the solution for sustainable management. On the basis of the five major aspects "Ethical Corporate Management," "Excellent Quality," "Environmental Sustainability," "LOHAS Workplace," and "Common Good," the Company complies with the sustainable development goals of the United Nations, implements corporate social responsibility and continues to move toward their vision of "Be a hidden champion in providing sustainable semiconductors to enrich human life," to pursue stable development and sustainable operations for the future.

● Ethical Corporate Management

"Ethical Corporate Management" is the ethical standard that the Company follows. With comprehensive organizational operations, effective supervision of organizational activities, and equal treatment for all of our customers, investors, employees, suppliers, and everyone we are in contact with to establish a good corporate reputation and company culture.

Winbond is the fifth-largest DRAM and the largest SPI NOR flash memory supplier in the world. Winbond has devoted much effort to the niche memory market for a long time. In 2019, the sales volume and revenue of the Code Storage Flash products reached a record high, accounting for 51% of Winbond's memory product revenue and have become Winbond's largest business group. The focus of DRAM products are R&D design, manufacturing, and sales services for niche products; through a refined business strategy, we have successfully earned a proportional market share. Winbond will continue to expand its customer base with its cross-selling strategy of DRAM and Flash and will also continue to expand its production capacity to increase its market share.

● Excellent Quality

The quality policy of Winbond is "establishing a quality culture with the concept of comprehensive quality management, zero defect and quality first, as well as providing customers with satisfying products and services through continuously improving processes". We continuously put considerable effort into improving product quality and services to meet our customer's needs and expectations.

In addition to possessing the professional management team and strong R&D team, Winbond has put much effort into developing and providing high-quality products and services for a long period of time. In the past few years, it has stable development in the automotive electronics domain. In 2019, Winbond successfully upgraded the reliability and functional safety of its automotive electronic products to become the first memory manufacturer in Taiwan to obtain the ISO 26262 road vehicles – functional safety – process certificate. Winbond has officially entered the global supply chain for the automotive electronic safety system and become a partner that international car manufacturers can rely on. In the future, Winbond will continue to design and develop various types of automotive electronic applied products and provide memory solutions for automotive electronic products that demand high quality and functional safety.

In addition to focusing on product quality and services, Winbond values the importance of customers' intellectual property rights as well as information security and business confidentiality. All of our employees are required to pass the "Information Security Awareness" training and we regularly conduct customer surveys to obtain feedback as reference for continuous improvement. As for supplier management, we request them to comply with the relevant international standards such as the Responsible Business Alliance's (RBA) Code of Conduct, Conflict Minerals, RoHS, REACH, and QC 080000 to fulfill customer requirements.

● Environmental Sustainability

The Company has devoted much effort in design, procurement, and manufacturing and sales of products that are free of harmful substances, and to ensure that we are in accordance with international regulations and to meet customer needs. Moreover, we are dedicated to protecting the environment and fulfilling our responsibilities as societal citizens. We conduct management and review of relevant audit results and management performance in policies, objectives, and regulations every year. We continuously improve the effectiveness of the hazardous substance management system.

We have devoted much effort to environmental indicators and pursue the vision of sustainable development for mankind and the earth to become a leading enterprise in green and sustainable development. To accomplish our objective of green sustainability, we are committed to promoting various measures such as energy-saving, carbon-reducing, water-reducing, waste-reducing, as well as adopting the best and feasible technology for pollution prevention and control. In the future, Winbond will proactively push forward the best green solutions to contribute to the wellbeing of our planet.

● LOHAS Workplace

Every Winbond employees are considered as one of the Company's most important assets. We provide competitive compensation and benefits, a comprehensive training program, and diverse and transparent communication channels to create a friendly workplace to enable our employees to strike a healthy balance between work and life. For example, Winbond has implemented the LOHAS holidays and provide childcare subsidies. In 2019, a total of 133 employees' newborn children received childcare subsidies, which amounted to NT\$ three million eighty-one thousand.

With regard to occupational safety and health and hygiene, Winbond is dedicated to meeting the strict international standards

for safety, health, and environmental protection. Through respect, caring, employee consultation and participation mechanism, Winbond is committed to providing a healthy work environment which is in accordance with laws and regulations and promoting healthy activities, which all together promotes team spirit and creates a LOHAS work environment so that our employees may work in a friendly workplace.

● Common Good

"Caring for the socially underprivileged, focusing on environmental sustainability, and fulfilling social responsibilities" is Winbond's continuous commitment to corporate social responsibility. Our main concerns include "public welfare activities", "helping underprivileged groups", "childcare", and the "Tree Sapling Planting Program for the Love of Public Welfare". In addition, we also encourage employees to participate in social welfare-related activities, which will not only increase employee team spirit but also expand our efforts in giving back to the society.

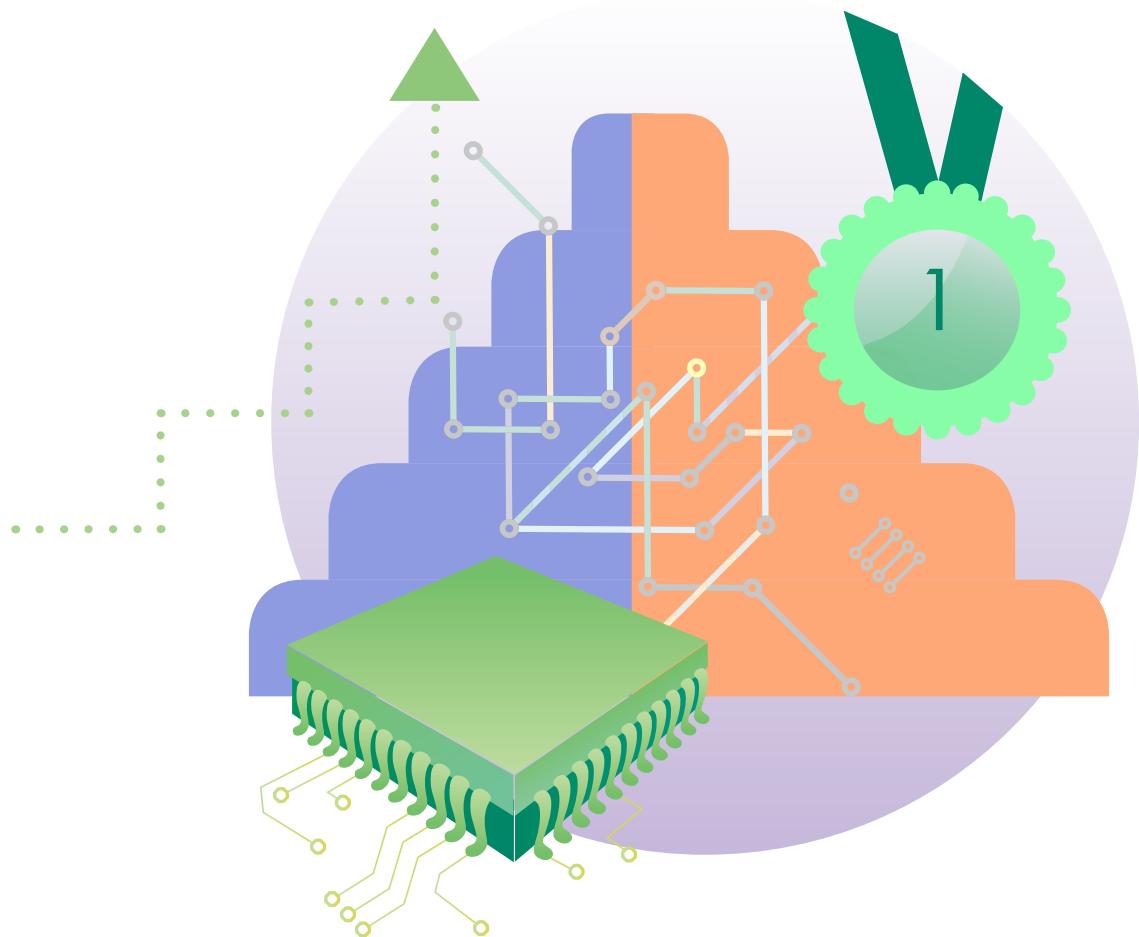
Technology development continues to drive the society to move forward. With the vigorous prosperous development of emerging applications such as the IoT, AI, and 5G, these technological innovations should not just focus on developing various applications such as information security, intelligent cloud, terminal sensing, and edge computing, but should also value the importance of technological ethics and environmental caring. Winbond has stayed true to its corporate philosophy of enterprise development and sustainable environment by developing innovative, low-energy consumption, safe, and high-efficiency products as well as providing customers with the best solutions to generate an optimal benefit for our shareholders, customers, and employees.

Chairman

焦佑鈞

Honorable Records for the Year

- Became **the first Taiwanese in-car memory manufacturer to receive ISO 26262** Road vehicles – Functional safety – process certification.
- Won the 2019 **Happy Enterprise Award in the Technology Industry** from the 1111 Human Resource Bank.
- Winbond was **chosen as a one of the constituent stocks for the Taiwan High Compensation 100 Index** and the **Taiwan Employment 99 Index**.
- Ranked in the **top 6–20%** of all listed companies in the 6th corporate governance evaluation.
- Won **one Gold Tower Award and three Silver Tower Awards** in the 32nd National Unity Circle Competition in 2019.
- Won the **Corporate Sustainability Report Gold Award** of the Taiwan Corporate Sustainability Awards in 2019.



I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V. LOHAS Workplace

VI. Giving back to the society

Sustainable Development Goal and Annual Performance

E Environmental



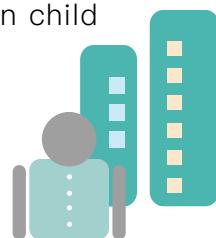
- A total of NT\$ **354** million was invested in pollution prevention in 2019.
- In 2019, we conducted energy saving, water saving and waste recycling to generate a total economic value of NT\$ **172** million.
- The total amount of greenhouse gas reduction is equivalent to **236,264** metric tons of carbon dioxide in 2019.
- The amount of recycled water is **9.66** million cubic meters and the water recycling rate of the entire plant is **82%** in 2019.
- The overall waste recycling rate is **92%** in 2019.

S Social



- The standard wage of Winbond's direct personnel is **1.4** times of the local minimum wage in 2019.
- The standard wage of Winbond's indirect personnel is **1.7** times of the local minimum wage in 2019.
- In 2019, the average retention rate for the personnel applying for parental leave is **92%**.
- In 2019, the rate for applying LOHAS leave is **73%**.
- A total of **1,309** children were benefited from the childcare subsidies in year 2011–2019.
- In 2019, a total of **133** employees were benefited from the new born child subsidy, with a total subsidy amount of NT\$ **30.81** million.

G Governance



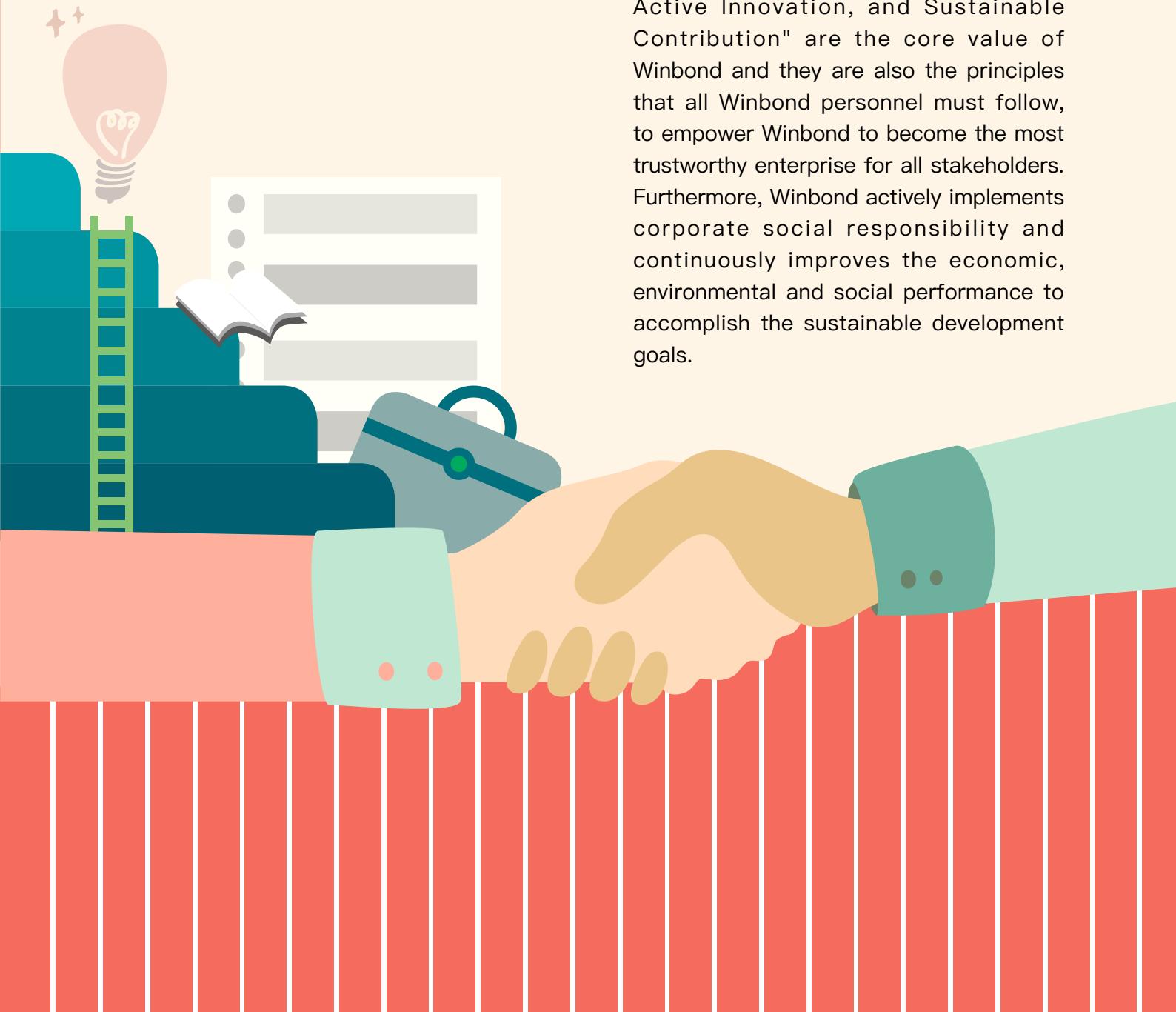
- Winbond's consolidated revenue was NT\$ **48.771** billion in 2019.
- Winbond did not have any violations regarding economy, environment and society in 2019.
- All employee of Winbond had passed the "Information Security Awareness" training in 2019.
- Winbond has won **18** awards in the National Unity Circle Competition from 2013 to 2019, including **4** Gold Tower Awards, **8** Silver Tower Awards and **6** Bronze Tower Awards.
- Winbond obtained **432** patents in 2019, accumulating to a total of **2,359** valid patents.
- In 2019, all suppliers/subcontractors had fully passed the audit assessments in the economic, environmental and social aspects.

I. Sustainable Business Operations



Summary of chapter and section

"Ethical Corporate Management, Accountable Team, Enthusiastic Learning, Active Innovation, and Sustainable Contribution" are the core value of Winbond and they are also the principles that all Winbond personnel must follow, to empower Winbond to become the most trustworthy enterprise for all stakeholders. Furthermore, Winbond actively implements corporate social responsibility and continuously improves the economic, environmental and social performance to accomplish the sustainable development goals.



1.1 Get to know Winbond

● About Winbond

Winbond was founded in September 1987 and was officially listed on the Taiwan Stock Exchange in October 1995. The corporate director Walsin Lihwa Co., Ltd. is the founder of Winbond and the largest shareholder since its establishment, with a shareholding ratio of 22%.

● Current status of the Company

Company name	Winbond Electronics Corporation
Number of employees worldwide	3,244 employees
Capital amount in NT\$	Capital amount NT\$ 39.8 billion
Date of establishment	September 29, 1987
Main products and technologies	Code Storage Flash Memory, Specialty DRAM and Mobile DRAM
Chairman and CEO	Yu-Cheng Chiao
President	Pei-Ming Chen (took office in March 2020)
Headquarters	No. 8, Keya 1st Rd., Daya Dist., Central Taiwan Science Park, Taichung City
Business operation base	Taiwan, United States, Japan, Israel, Mainland China, Hong Kong

Winbond is a professional IC design, manufacturing and sales company for niche memory, including product design, research and development, wafer manufacturing and its brand-name product marketing worldwide. Winbond's core product portfolio, consisting of Specialty DRAM, Code Storage Flash Memory and Mobile DRAM. Winbond's core products include flash memory (Code Storage Flash Memory), niche memory (Specialty DRAM) and Mobile DRAM. Winbond's products can be applied in five major fields such as automotive electronics, industrial electronics, communications, computation, and consumer electronics. With the competitive advantage of technological independence and carefully planned production capacity strategy, we have established a highly flexible production system and take the competitive advantage of product portfolio to provide our worldwide customers with a full range of low and medium density niche memory solutions and services, to practically implement the sustainable development of our brand-name products.

To broaden the scope of our services, Winbond has established subsidiaries and service bases in the United States, Japan, Israel, China, Hong Kong, etc. We aggressively develop distributors in many countries to organize a comprehensive professional marketing team to serve local customers and expand the sales and service scope of our products. In the aspect of quality, we have strengthened the yield analysis, supply chain management and customer satisfaction level to create a good and long-term reputation with our strict production process control and quality control operations. We have also obtained international standards certification such as ISO 9001, ISO 26262, IATF 16949, QC Verification of 080000, ISO 14001, and ISO 45001. Winbond will continue to provide customer-oriented services and devote resources in developing products with our competitive edge in the market. At the same time, we will implement the core values of our work culture: "Ethical Corporate Management, Accountable Team, Enthusiastic Learning, Active Innovation, and Sustainable Contribution" in various business activities, with our advanced semiconductor design and production technology as well as the creativity and wisdom of our employees, to accomplish the Company's objectives and strive to become a world-class product solution provider.

● Market and Product

Windbond Code Storage Flash business has cultivated the market with high quality and high efficiency product for the long time and has established the closed partner relationship with international vendor. One of the vendors is the leading NOR Flash manufacturer and also the main motive of Winbond's stable growth. As the top five brand-name DRAM manufacturer, Winbond focuses on the research and development, producing and sales of niche memory DRAM products, successfully segment the market and have a role to play with granularity strategy.

Link to Introduction of Main Products

Mobile DRAM	Specialty DRAM	Code Storage Flash Memory
		

Link to Introduction of Product Applications

Automotive Electronics	Industrial Electronics	Communications	Computer Computation	Consumer Electronics
				

I. Sustainable business operations

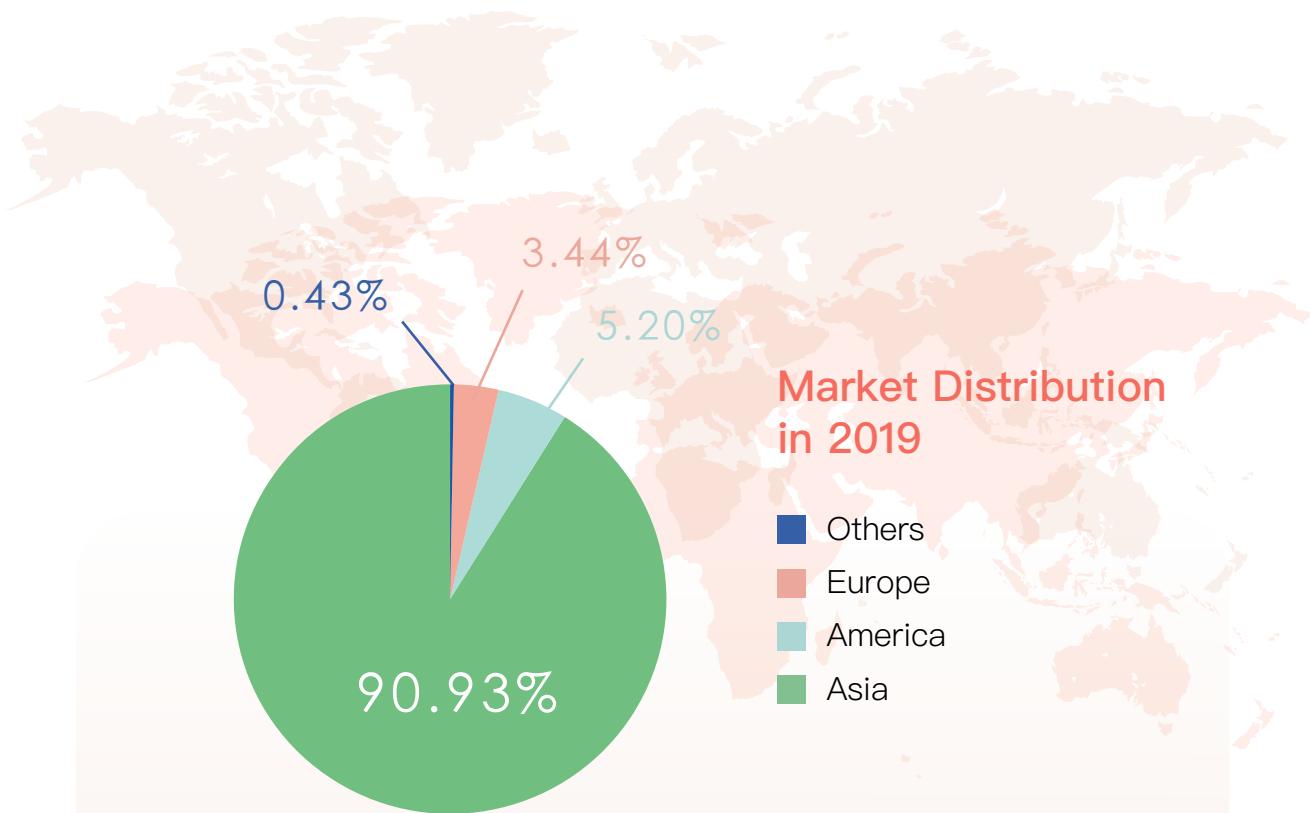
II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

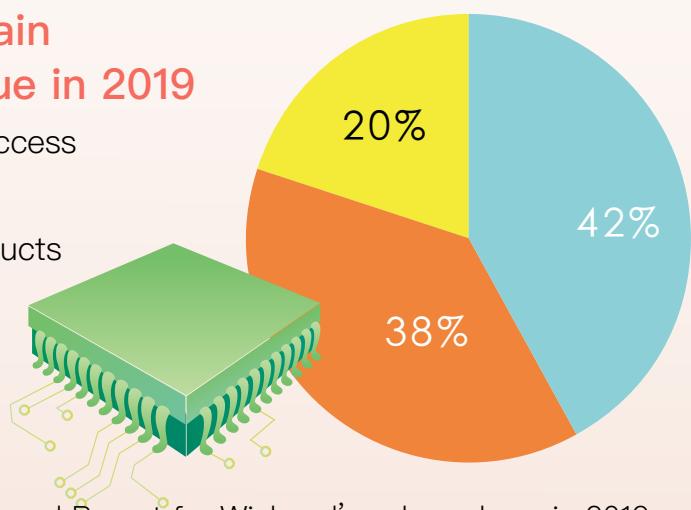
V. LOHAS Workplace

VI. Giving back to the society



Proportion of Main Business Revenue in 2019

- Dynamic random access memory products
- Flash memory products
- Logic products



Please refer to the 2019 Annual Report for Winbond's sales volume in 2019

● External Organization Participation

Winbond has been actively participating in related events organized by relevant organizations and technology alliances, to obtain new domain knowhow and technology in the industry and establish a good relation with relevant organizations such as: Winbond's chairman Yu-Cheng Chiao serves as a honorary chairman in the Taiwan Electrical and Electronic Manufacturers' Association; the deputy CEO Dongyi Zhan severs as a director in the Taiwan Semiconductor Industry Association; the deputy president Wenhua Lu serves as supervisor in the Allied Association for Science Park Industries.

Vision Statement

以綠色半導體技術豐富人類生活的隱形冠軍

Be a hidden champion in providing sustainable semiconductors to enrich human life.



● Winbond's Vision

"Ethical Corporate Management, Accountable Team, Enthusiastic Learning, Active Innovation, and Sustainable Contribution" is Winbond's corporate culture as well as the Company's core values, beliefs, and actions. All Winbond personnel must understand and put into practice. Winbond has established the "Principles of Ethical Corporate Management", "Employees Code of Conduct" and "Corporate Social Responsibility Management Procedures" in order to maintain the core values of the corporate culture. The "Ethical Corporate Management" is Winbond's principle of ethical standard and we fairly treat our customers, investors, employees, suppliers and everyone we are in contact with, and move towards our vision of "Be a hidden champion in providing sustainable semiconductors to enrich human life".



• Map of business bases worldwide



Winbond Electronics Corporation America

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Winbond Technology LTD

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Winbond Electronics (H.K.) Limited

Unit 9-11, 22F, Millennium City 2, No. 378 Kwun Tong Road,
Kowloon, Hong Kong
Tel: +852-27513126



Winbond Electronics (Suzhou) Limited

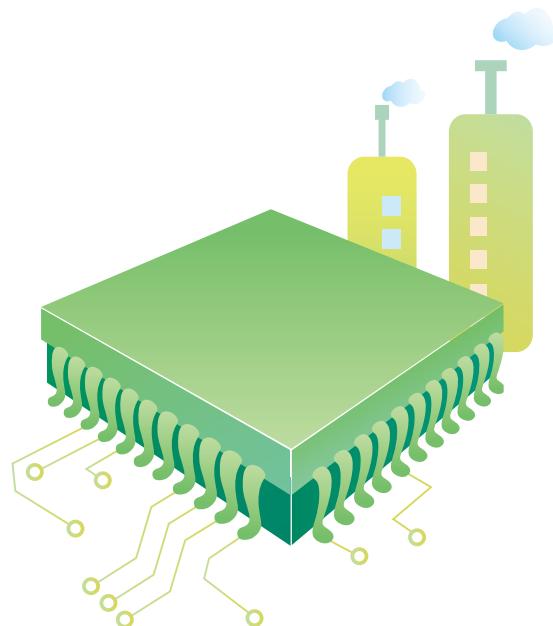
Kingboard Plaza (Building B, 12 floor), No.505, Guangming Road, Huaqiao
Town, Kunshan City, Jiangsu Province, China
Room 1206
Tel: +86-512-8163-8168

Winbond Electronics Corporation Japan



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kanagawa 222-0033, Japan

Tel : +81-45-478-1881



Headquarters – Taiwan Winbond Electronics Corporation



Headquarters and the Factory in the Central Taiwan Science Park

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Jhubei Office

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2019 Annual Report



- Please refer to the annual report for related information of Winbond and affiliated companies.

1.2 Sustainable Development Strategy

To fulfill corporate social responsibility, facilitate the development in economic, environmental and social aspects, and accomplish the objective of sustainable development, the President's Office had stipulated the "Corporate Social Responsibility Policy" and "Principles of Corporate Social Responsibility" and they were resolved and approved by the 20th Board of Directors Meeting of the 9th session (held on January 24, 2014) and the 5th Board of Directors Meeting of the 10th session (held on December 18, 2014). The President's Office is responsible for the proposal and implementation of policies, systems or related management policies, and specific promotion plans for corporate social responsibility, and it shall report to the board of directors on a regular basis.

The president reports to the board of directors of the implementation result of corporate social responsibility for the current year and the work plan for the following year at the board of directors meeting held in the fourth quarter of each year (the latest meeting was held on October 25, 2019) and makes improvement based on the board of directors' opinions, so that the corporate social responsibility had officially become a part of the Company's strategic decision-making.

Winbond is committed that all business management activities must concurrently take into account of corporate social responsibility. Ensure the compliance with corporate ethics and government laws and regulations through fortifying the employees' education and training and company internal control. At the same time, we communicate with employees at all levels, subcontractors and shareholders of the Company through various approaches such as training, announcements, conferences, promotional posters, work discussions, and work instructions, to ensure that the Company's corporate social responsibility (CSR) policy is properly disseminated and understood. Winbond will continue to pursue the improvement of quality management and environmental protection, as well as devote effort in social welfare and maintain good communication with stakeholders in the future. The Company expects all of our business partners to support and abide by the demands for corporate social responsibility.

Column

Chairman Yu-Cheng Chiao won the ERSO Award

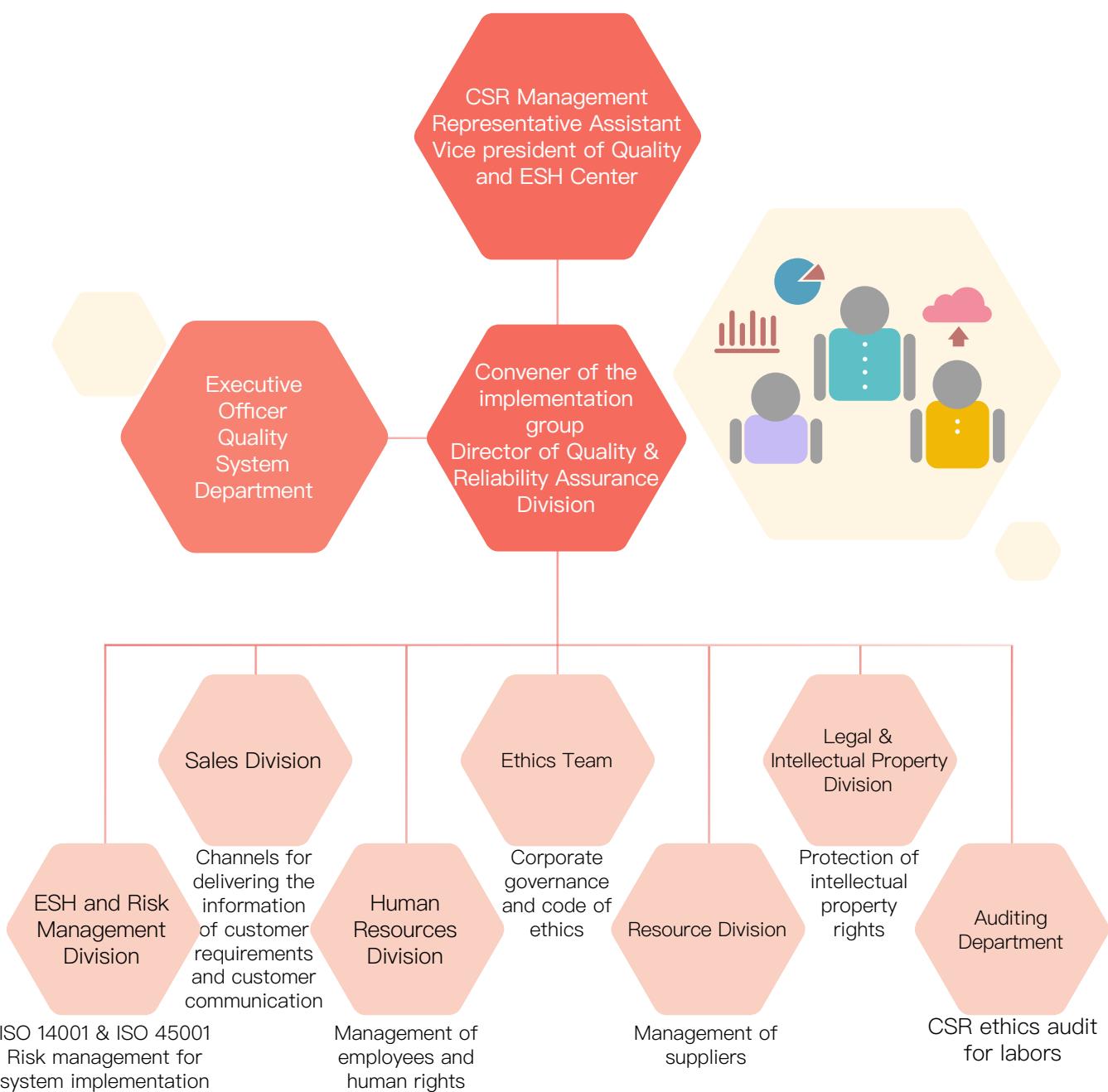
On April 29, 2019, Mr. Yu-Cheng Chiao, chairman of Winbond, was awarded the 2019 ERSO Award by the Pan Wen Yuan Foundation. The award is a recognition of Winbond's performance in the global semiconductor industry and it also shows Winbond's goal of recruiting technological talents in Taiwan for its continuous innovation.



Mr. Qintai Shi (left), chairman of the Pan Wen Yuan Foundation presented the ERSO Award to Mr. Yu-Cheng Chiao, chairman of Winbond

● Winbond's Corporate Social Responsibility (CSR) Implementation Committee

The Corporate Social Responsibility (CSR) Implementation Committee is responsible for summarizing subjects regarding Winbond's corporate governance, environmental protection and labors, and convene the management and review meeting in the first quarter of each year (the latest meeting was held on February 19, 2020) and report the implementation performance of CSR management system and the improvement suggestions to the high management.





● Enterprise Social Responsibility Policy

Winbond is committed that all business management activities must concurrently take into account of corporate social responsibility. Ensure the compliance with corporate ethics and government laws and regulations through fortifying the employees' education and training and company internal control. At the same time, we will continue to pursue the improvement of quality management and environmental protection, as well as devote effort in social welfare and maintain good communication with stakeholders. Winbond will incorporate the Responsible Business Alliance (RBA) Code of Conduct and the Sustainable Development Goals (SDGs) of United Nations into our corporate social responsibility policy. We expect all of our business partners to support and abide by the demands for corporate social responsibility.

● Responsible Business Alliance (RBA)

The Responsible Business Alliance (RBA), formerly the Electronic Industry Citizenship Coalition (EICC), Code of Conduct establishes standards to ensure that working conditions in the electronics industry or industries in which electronics is a key component and its supply chains are safe, that workers are treated with respect and dignity, and that business operations are environmentally friendly and conducted ethically. Considered as part of the electronics industry for purposes of the Code are all organizations that may design, market, manufacture, or provide goods and services that are used to produce electronic goods. The Code may be voluntarily adopted by any business in the electronics sector and subsequently applied by that business to its supply chain and subcontractors, including providers of contract labor.

Winbond had passed the Responsible Business Alliance Code of Conduct biannual version 6.0 certification in October 2018, with an excellent score of 196.5 points in the golden level. We stipulate the relevant regulations of Responsible Business Alliance Code of Conduct (RBA CoC) in the management procedures for corporate social responsibility, as the regulations for our employees to follow. We have also devoted much effort in labor's human rights, health and safety, environmental protection, code of ethics, to fulfill our corporate citizen responsibilities and follow the Principles of Ethical Corporate Management. The expected time for next verification is in 2020.

Aspect	Subject
Labor 	<ul style="list-style-type: none"> • Voluntarily chosen occupation • Young labor • Work hours • Wage and benefit <ul style="list-style-type: none"> • Humane treatment • No discrimination • Free association
Health and safety 	<ul style="list-style-type: none"> • Occupational safety • Emergency preparation • Work injuries and occupational diseases • Industrial hygiene <ul style="list-style-type: none"> • Labor work • Machine protection • Public sanitation, restaurant and dormitory • Health and safety information
Environmental protection 	<ul style="list-style-type: none"> • Environmental permit and report • Pollution prevention and saving of resources • Harmful substance • Solid waste <ul style="list-style-type: none"> • Waste gas emissions • Substance control • Water resource management • Energy consumption and greenhouse gas emissions
Code of ethics 	<ul style="list-style-type: none"> • Ethical Corporate Management • No inappropriate profit • Information disclosure • Intellectual property rights <ul style="list-style-type: none"> • Fair trade, advertisement and competition • Identity protection and prevention of retaliation • Responsible for procurement of minerals • Privacy
Management system 	<ul style="list-style-type: none"> • The Company's commitment • Management duties and responsibilities • Legal and customer requirements • Risk assessment and risk management • objective of improvement • Training <ul style="list-style-type: none"> • Communication • Employee's feedback, participation and complaint • Review and evaluation • Corrective measures • Documents and records • Supplier's responsibilities

● Sustainable Development Goals

Since the United Nations adopted the Sustainable Development Goals (SDGs) and the Taiwan government announced Taiwan's sustainable development goals, Winbond has been actively cooperating with the polices and making contributions to fulfill our corporate social responsibility.

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V.LOHAS Workplace

VI. Giving back to the society



"Caring for the underprivileged groups in the society" is one of Winbond's everlasting commitment for corporate social responsibility. Therefore, our volunteers have put considerable effort and budget into assisting the underprivileged groups to overcome difficulties. The projects we have implemented include nursery institution services, used computer donation programs, fund raising for scholarship and subsidy, and so on.



Winbond is committed to be in compliance with international advanced standards of safety, health and environmental protection. We are committed to providing a work environment that is healthy and complies with laws and regulations, through respect, caring, as well as worker consultation and the participation mechanism. In 2019, our 126 operators were examined and all of the examination results were below level 2 management, and the health management and facilitation measures were implemented in accordance with the laws and regulations.



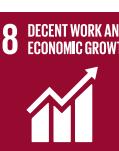
With the combination of the Company's vision, business philosophy, cultural values, as well as the survey for training demands, Winbond has developed an exclusive personal learning and development program. In 2019, the average hours of education and training in Taiwan headquarters is: 31.19 hours/person, with a total of cost NT\$ 10.96 million dollars.



There is no difference in the basic wage for male and female workers in Winbond. The employee's wage is based on his/her job position, education and experience. The ratio of men to women in the managerial positions is 1:1, and for non-managerial positions is 1.2:1.



Winbond value the importance of all resources, especially for the water resources. We continuously increase the reuse rate of recycled water. In 2019, the water recycling rate of the entire plant is about 82% and the recycling rate for water used in the manufacturing process is about 91%.



Winbond actively creates economic value for all stakeholders. In 2019, Winbond's consolidated revenue was NT\$48.77 billion, with a decrease of 4.7% compared to 2018; the consolidated net profit after tax was NT\$1.48 billion and the earnings per share after tax was NT\$0.32.



Winbond has been continuously pursuing product and technology innovation and implementing our competitive advantages, especially in the expansion of production capacity and upgrading of manufacturing process, to provide our customers with green products that have lower energy consumption and lower impact on the environment. Winbond obtained 432 patents in 2019, accumulating to a total of 2,359 valid patents.



To reduce the inference and impact on the environment during business operations, Winbond continues to invest resources in pollution prevention and control. In 2019, we had invested NT\$354 million in pollution prevention and the total reduction amount of greenhouse gases is equivalent to 236,264 metric tons of carbon dioxide.



In addition to focusing on the improvement of sustainability performance, Winbond also actively work with its partners to make improvement together. In 2019, all suppliers/subcontractors had fully passed the audit assessments in the economic, environmental and social aspects. We also organize the suppliers' convention on a regular basis and adopt the sustainable inspection standards.

1.3 Communication with Stakeholders and Response

For sustainable development and long-term business operations, Winbond conducts identification for stakeholders according to the five principles of the AA1000 Stakeholder Engagement Standard (SES) 2015, including Dependency, Responsibility, and Influence, Tension and Diverse Perspectives, to identify seven key stakeholder groups of Winbond, such as: employees, government authorities, customers/distributors, suppliers/subcontractors, shareholders/investors, banks/financial institutions and media.

Stakeholders	The implication of stakeholders to Winbond	Concerned subjects	Communication channels and frequency	Description of communication results in 2019
Employees	Employees are deemed as one of Winbond's most important assets. We are committed to creating a friendly and happy workplace and providing a human resources policy that is superior to the industry standard.	1. Operational performance 2. Employees composition and welfare system 3. Labor relations 4. Occupational health and safety 5. Training and education	<ul style="list-style-type: none"> • Internal Employee complaint hotline (available at all times) • Employees' complaint committee for sexual harassment (available at all times) • Functional communication meeting (regular) • Internal website bulletin board (aperiodic) • Training courses (regular) • Employees' Welfare Committee (aperiodic) • Health care activities (aperiodic) • Occupational Safety Monthly Meeting (monthly) • ESH Factory Committee (quarterly) • Employee feedback box (available at all times) • Health consultation (available at all times) • Health, stress, pain questionnaire (annual) • Organize environmental protection, safety and health education and training (regular) • CSR questionnaire (annual) 	1. In 2019, a total of 11 proposed cases received via the suggestion box were handled. (including physical and electronic) 2. Winbond has created an employee complaint hotline 75234 and the Care complaint mailbox; one complaint case was received in 2019. 3. There was no case regarding sexual harassment in 2019. 4. In 2019, a total of 8 labor and management meetings were convened; there was no report case; a total of 7 problems were reported on weekdays. 5. In 2019, a total of four "managerial officers management and discussion meeting" were held, with a total of 1,307 participants. 6. A total of two "President's symposiums" were held in 2019, with a total of 1,313 participants. 7. As of the end of 2019, the "Corporate Social Responsibility" course (including labor's human rights, environmental protection, health and safety, and code of ethics) has been organized, with a total of 2492 participants and a total of 997 training hours; and the course completion rate is 100%.

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V.LOHAS Workplace

VI. Giving back to the society

Stakeholders	The implication of stakeholders to Winbond	Concerned subjects	Communication channels and frequency	Description of communication results in 2019
Government authorities	Winbond will comply with the regulations and requirements of local government authorities and prevent unlawful actions in any form.	<ol style="list-style-type: none"> 1. Waste water and waste 2. Discharge management 3. Occupational health and safety 4. Ethical corporate management and legal compliance 5. Product services and labeling 	<ul style="list-style-type: none"> • Official document (aperiodic) • Seminar of regulation explanation (aperiodic) • Propaganda of government decree (aperiodic) • Visit of competent authority (aperiodic) • CSR questionnaire (annual) 	<ol style="list-style-type: none"> 1. The energy saving and carbon reduction measures contribute to a total reduction amount of emissions equivalent to 236,264 metric tons of carbon dioxide, which is equivalent to 612 times the amount of annual carbon emissions of Daan Forest Park. 2. The amount of water saved is 701,000 cubic meters. 3. 5,575 metric tons of waste was recycled. 4. We had participated in 39 dissemination meetings held by the Central Taiwan Science Park and the Environmental Protection Bureau of Taichung City Government. 5. The competent authority had conducted inspection and testing in the factory for 23 times.
Customers/distributors	Customers and distributors are the main sources that help Winbond generate economic value. We aim to become the most reliable enterprise based on the principle of ethical corporate operations.	<ol style="list-style-type: none"> 1. Customer privacy 2. Supply chain management 3. Operational performance 4. Quality management 5. Risk control 6. Innovation management and patent 	<ul style="list-style-type: none"> • Customer auditing (aperiodic) • Business conference (regular) • Technical seminar (aperiodic) • Phone or e-mail (instant) • Questionnaire response (instant) • CSR questionnaire (annual) • Customer satisfaction questionnaire (conducted regularly every year) 	<ol style="list-style-type: none"> 1. The customer satisfaction questionnaire survey conducted in 2019 had an average satisfaction level of over 85%. 2. In addition to regular visits to customers by the salespersons of the Company, they will also use telephone and e-mail to contact customers and help them solve problems in a timely manner. 3. Our customers can also use the interface provided on the Company's website for consultation. 4. The Company regularly participates in the Munich Electronica trade fair every two years. 5. We also participate in customer's internal training seminars for the presentation of our products and product explanations.
Suppliers/subcontractors	Supply the materials required for Winbond's production and maintain Winbond's regular operation and sustainable operation. Therefore, we have put considerable effort into enhancing the competitiveness of our suppliers and working together towards sustainable development.	<ol style="list-style-type: none"> 1. Supplier's environmental assessment 2. Supplier's social assessment 3. Customer privacy 4. Quality management 5. Occupational health and safety 	<ul style="list-style-type: none"> • Supplier audit (every year) • Evaluation of main suppliers (regular) • External complaint channel (instant) • Main suppliers' quality meeting (monthly/quarterly) • Contractors' meeting (monthly) • CSR questionnaire (annual) 	<ol style="list-style-type: none"> 1. Completed the audit for supplier's Corporate social responsibility (CSR) and Hazardous Substances Free (HSF). 2. All of our suppliers have signed the Integrity Management Agreement and statement for the Responsible Business Alliance's (RBA) Code of Conduct. 3. There is no supplier's complaint case. 4. All of our main suppliers have signed a declaration for not using the conflict minerals.
Shareholders/investors	They are the source of funding (including potential) for Winbond and they should be able to obtain the important information of the Company in a fair manner in order to fulfill the Company's sustainable operations in the market.	<ol style="list-style-type: none"> 1. Operational performance 2. Ethical corporate management and legal compliance 3. Quality management 4. Innovation management and patent 5. Customer privacy 	<ul style="list-style-type: none"> • Shareholders' meeting (yearly) • Institutional Investor Conference (every six months); it will be conducted from time to time based on special circumstances • One-on-one meeting with institutional investors (10-20 times/quarter) will be conducted from time to time based on special circumstances • Phone or e-mail (instant) • Taiwan Stock Exchange's Market Observation System (aperiodic) • Company website (aperiodic) • CSR questionnaire (annual) 	<ol style="list-style-type: none"> 1. The shareholders' meeting is conducted on a yearly basis. 2. The institutional investor conference is conducted every six months. 3. The financial report is published on the Company's website every quarter. 4. The revenue report is published on the Company's website every month.

Stakeholders	The implication of stakeholders to Winbond	Concerned subjects	Communication channels and frequency	Description of communication results in 2019
Banks/ financial institutions	Banks/financial institutions provide financing to Winbond for factory and resources expansion and hence they are important stakeholders in assisting Winbond to increase its value.	<ol style="list-style-type: none"> 1. Customer privacy 2. Product services and labeling 3. Local community 4. Corporate governance 	<ul style="list-style-type: none"> • Official document (aperiodic) • Seminar of regulation explanation (aperiodic) • CSR questionnaire (annual) 	We acquire bank financing with lower interest rate based on the Company's requirements for general fund or capital expenditures for plant expansion, to reduce the Company's costs.
Media	Media play a crucial role between the Company and its stakeholders. Media obtains the Company's information and makes announcement in a timely manner, which helps the stakeholders to obtain the Company's information fairly and correctly as well enhance the Company's reputation.	<ol style="list-style-type: none"> 1. Operational performance 2. Training and education 3. Ethical corporate management and regulations 4. Corporate governance 5. Risk management 	<ul style="list-style-type: none"> • Phone and e-mail (instant) • Press release (regular) • CSR questionnaire (annual) 	<ol style="list-style-type: none"> 1. Provide revenue press releases every month. 2. Provide press release of the Company's operation report every half a year. 3. Meeting with reporters twice a year. 4. Aperiodic phone or e-mail communication.

● Grievance Mechanism

Winbond is committed that all business management activities must concurrently take into account of corporate social responsibility, to ensure compliance with corporate ethics, government's laws and regulations, while upholding ethical operation in all business endeavors. If Winbond's employees violate the above conducts, the related parties may immediately report it to the relevant personnel of Winbond and provide relevant evidence. The stakeholder engagement area on Winbond's Website provides complaint channels for individuals inside or outside of the Company to report violations or misconducts anonymously or non-anonymously. Upon reception of a complaint, a dedicated team may be formed for investigation. In addition to the complaint channels for stakeholders on the website, Winbond also provides supplier complaint hotline and mailbox.

Winbond upholds the principle of confidentiality and protection for complaint cases and handles the cases with fair and proper treatment. Supervisors at all levels should not lead the complainant case to dismissal, job transfer, or any actions that affect the work of the employee; the employee who files the complaint shall not be discriminated or intimidated by other employees. All stakeholders including staff members are encouraged to file complaints against unlawful conducts.

Complaint hotline: +886-4-2521-3579

Complaint mailbox: internal_audit@winbond.com

Company website: About Us/Stakeholder Engagement/

Complaint Channel



I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V.LOHAS Workplace

VI. Giving back to the society

1.4 Management of Material Topics

Winbond has established an internal corporate social responsibility implementation committee based on the Company's corporate culture and business philosophy as well as referring to the Responsible Business Alliance (RBA) Code of Conduct and GRI Guidelines published by the Global Reporting Initiative. The committee summarizes sustainability subjects based on the environmental, economic and social aspects.

● Evaluation Process

Firstly, the main stakeholders are identified by the internal experts of the Winbond Corporate Social Responsibility Implementation Committee, according to the global and industry standards, such as: Responsible Business Alliance (RBA) Code of Conduct, GRI Guidelines published by the Global Reporting Initiative, to collect the concerned subjects and conduct the online and paper questionnaire surveys. Secondly, prioritize these concerned subjects based on the results, to analyze the concerned level and the significance level of impact.

Step 1: Identification

1

Identification of stakeholders

7 major stakeholders

Through the five principles of the AA1000 Stakeholder Engagement Standard (SES) 2015, we have identified key stakeholders of Winbond, including employees, government authorities, customers/distributors, suppliers/subcontractors, shareholders/investors, banks/financial institutions and media.

2

Collect the concerned subjects

22 concerned topics

Winbond collects and summarizes sustainability related subjects based on the global specifications and standards, industry specifications and standards, industry and inter-industry benchmarks, and annual goals of the organization. We have conducted a questionnaire survey for feedback of concerned subjects for our internal experts and collected the opinions from a great number of stakeholders as well as the media reports. We also collected the feedback sustainability subjects from stakeholders through online and paper questionnaire surveys as well as interactions and interviews with the stakeholders.

We have stipulated the following 22 topics based on the benchmark analysis, questionnaire results, and the ESG subjects concerned by the stakeholders in the past few years.

Step 2: Prioritization of material topics

3

Analysis of the impact on ESG aspect according to the internal and external stakeholders' assessments

132 questionnaires

We have conducted interviews or questionnaire surveys with the corresponding responsible units of the stakeholders, based on the scope of their daily business operations. On the basis of the substantive analysis process, the participants were asked to rate their "level of concern on sustainability subjects" on a five-point scale: extremely concerned, highly concerned, moderately concerned, slightly concerned, and not at all concerned; a total of 132 questionnaires were returned in 2019. Similarly, for the "impact of sustainability subjects on Winbond's business operations" was assessed by the Company's internal high-level executives, with a five-point scale based on the level of impact.

4

Confirmation of major concerned topics

12 major topics

Next, we analyze the "level of concern by the stakeholders" and the "level of impact on Winbond's sustainable corporate management" for each of the concerned topic and make a matrix diagram for Winbond's material topics.

5

Confirm and review the material topics in 2019

After the strict identification procedures, the material topics in 2019 are the matrix diagram closed to the upper right corner, which indicates that they have a higher level of concern from stakeholders and they also have a higher level of impact on our sustainable management; the scopes of the twelve material topics are as follows:

I. Sustainable business operations

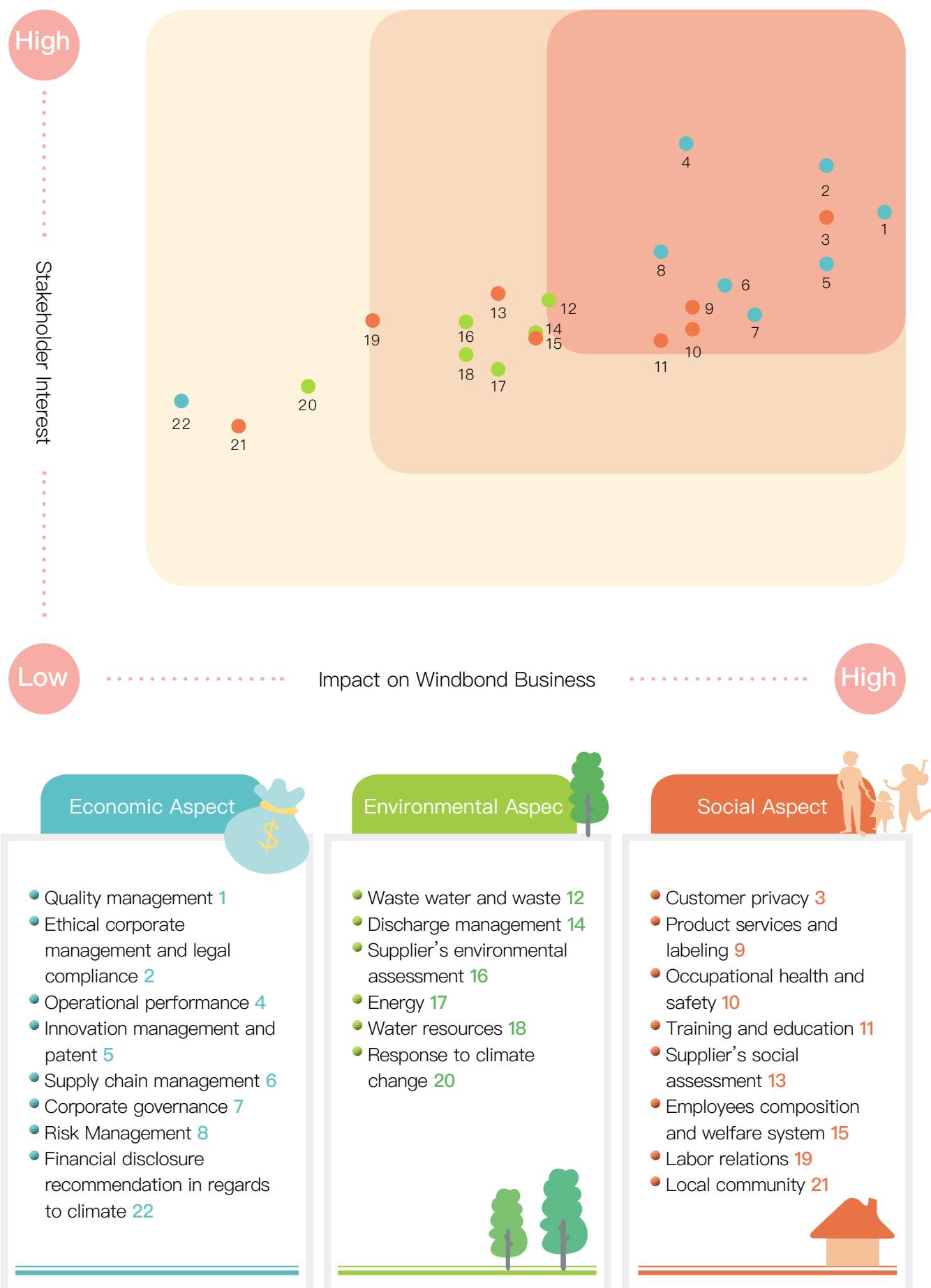
II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V.LOHAS Workplace

VI. Giving back to the society



Aspect	Name of material topic	Corresponding chapter	Corresponding topic of GRI	Page
Economic	Quality management	3.2 Product quality	–	45
Economic	Ethical corporate management and legal compliance	2.3 Ethical corporate management	GRI 205 GRI 206 GRI 307 GRI 419	37
Society	Customer privacy	3.3 Customer privacy and satisfaction level	GRI 418	49
Economic	Operational performance	2.2 Operating performance	GRI 201	36
Society	Innovation management and patent	3.2 Innovation and patents	–	50
Economic	Supply chain management	3.4 Sustainable management of supply chain	GRI 308	54
Economic	Corporate governance	2.1 Governance overview	–	33
Economic	Risk management	2.3 Risk management	–	39
Society	Product services and labeling	1.1 Get to know Winbond	GRI 417	12
Society	Occupational health and safety	5.4 Occupational health and safety	GRI 403	100
Society	Training and education	5.2 Diversified development	GRI 404	87
Environment	Waste water and waste	4.3 Water and waste management	GRI 306	71

Name of material topic	Its significance to Winbond
Quality management	Our commitment to quality is the foundation for Winbond to accomplish sustainable development. The processes in each stage of research, development and manufacturing will affect the quality and reliability of the final product. With the comprehensive quality management, we provide satisfactory products and services to our customers to enhance the Company's reputation and improve operating performance.
Ethical corporate management and legal compliance	Winbond upholds the "ethical corporate management" as the Company's highest ethical standards for governing all operational processes in the Company. We will continue to review ourselves with the highest ethical standards to create corporate reputation and become the most reliable and respectable company.
Customer privacy	Winbond values the importance of customer privacy and complies with the EU's GDPR (General Data Protection Regulation), to strictly ensure the protection of customer related information. All of our customers' documents, data and business information are strictly controlled through the Company's internal system, to provide comprehensive and secure services.
Operational performance	Winbond continues to pursue stable business operations and growth in revenue. Through providing our global customers with a full range of low to medium density niche memory solutions and services, we continue to enhance our competitive advantages and market shares, as well as practically implement the sustainable development of our brand-name products.
Innovation management and patent	Winbond continues to devote resources in developing products with our competitive edge in the market. We take into consideration of the sustainable development trends and adopt advanced semiconductor design and production technology, to develop innovative products and services, creates economic value for Winbond and timely respond to the environmental changes as well as the market demands.
Supply chain management	Winbond's management strategy of supply chain is to establish a permanent partnership with our suppliers/subcontractors and extend the implementation of the Company's corporate social responsibility to the supply chain, including the evaluation measures such as "quality management", "green review and inspection" and "review of social responsibility", to improve the resilience of the supply chain and reduce the operational risks.

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V. LOHAS Workplace

VI. Giving back to the society

Name of material topic	Its significance to Winbond
Corporate governance	We value the importance of business integrity to our customers while strictly requesting our employees to self-discipline and follow the Company's internal regulations and government regulations, to create a good corporate governance culture to demonstrate the Company's value and protect the rights and interests of shareholders.
Risk management	We have been handling disasters and risk management with preventive measures and positive attitude in order to reduce the impact from the external environment and internal issues on Winbond's business operations. We also pursue our goal of sustainable development through the implementation and management of risk engineering control, safety regulations and standards.
Product services and labeling	In accordance with the laws and regulations and protection of customers' rights and interests, Winbond conducts a comprehensive labeling on products and services as well as provides instructions and specifications for users, to obtain stakeholders' trust and enhance the corporate reputation.
Occupational health and safety	Winbond is committed to be in compliance with international advanced standards of safety, health and environmental protection. We are committed to providing a work environment that is healthy and complies with laws and regulations, through respect, caring, as well as worker consultation and the participation mechanism, to fulfill the corporate social responsibilities of a world-class company.
Training and education	All employees of Winbond are deemed as one of the Company's most important assets and hence we continue to cultivate professional talents and provide comprehensive education and training programs, so that our employees will be able to enhance their competitiveness, accomplish personal goals, strengthen personal abilities, and demonstrate innovative capabilities to maintain the Company's core competitiveness.
Waste water and waste	To reduce the environmental impact from our business operations, we gradually reduce the amount of resource consumption and pollution through the optimal measures for prevention and improvement. To practically implement the concept of environmental protection and become a green enterprise for sustainable development.

Remarks: the new material topics for this year, compared to 2018, including "quality management", "corporate governance" and "risk management"; the other topics have been combined and condensed for effective management. The material topics of the previous year that are not listed this year include "labor/management relations", "emission management", "energy", and "water resources".

● Material topics' level of impact on Winbond's value chain



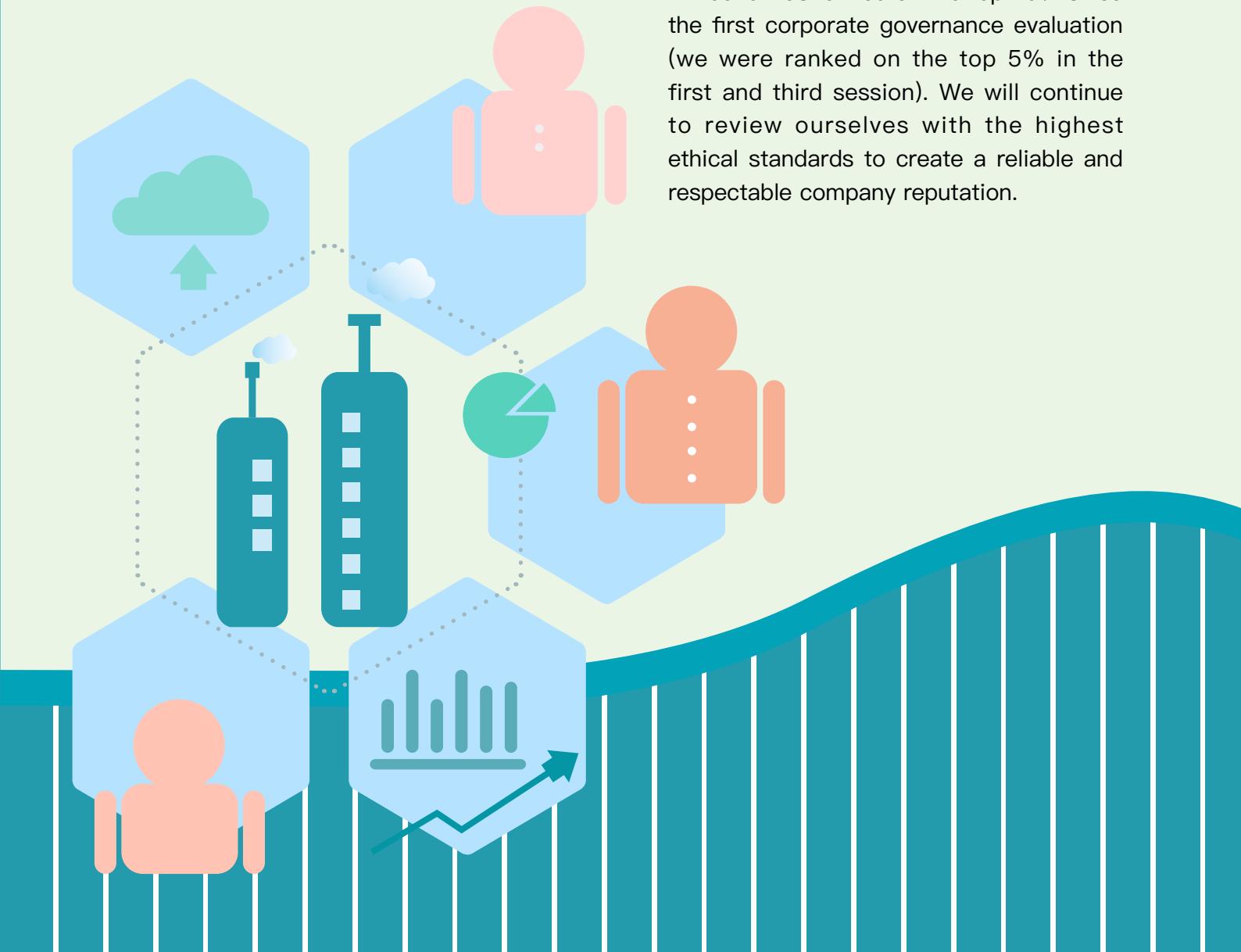
● Direct impact ○ Cause impact ▲ Directly related to the impact through business relations

II. Ethical Corporate Management



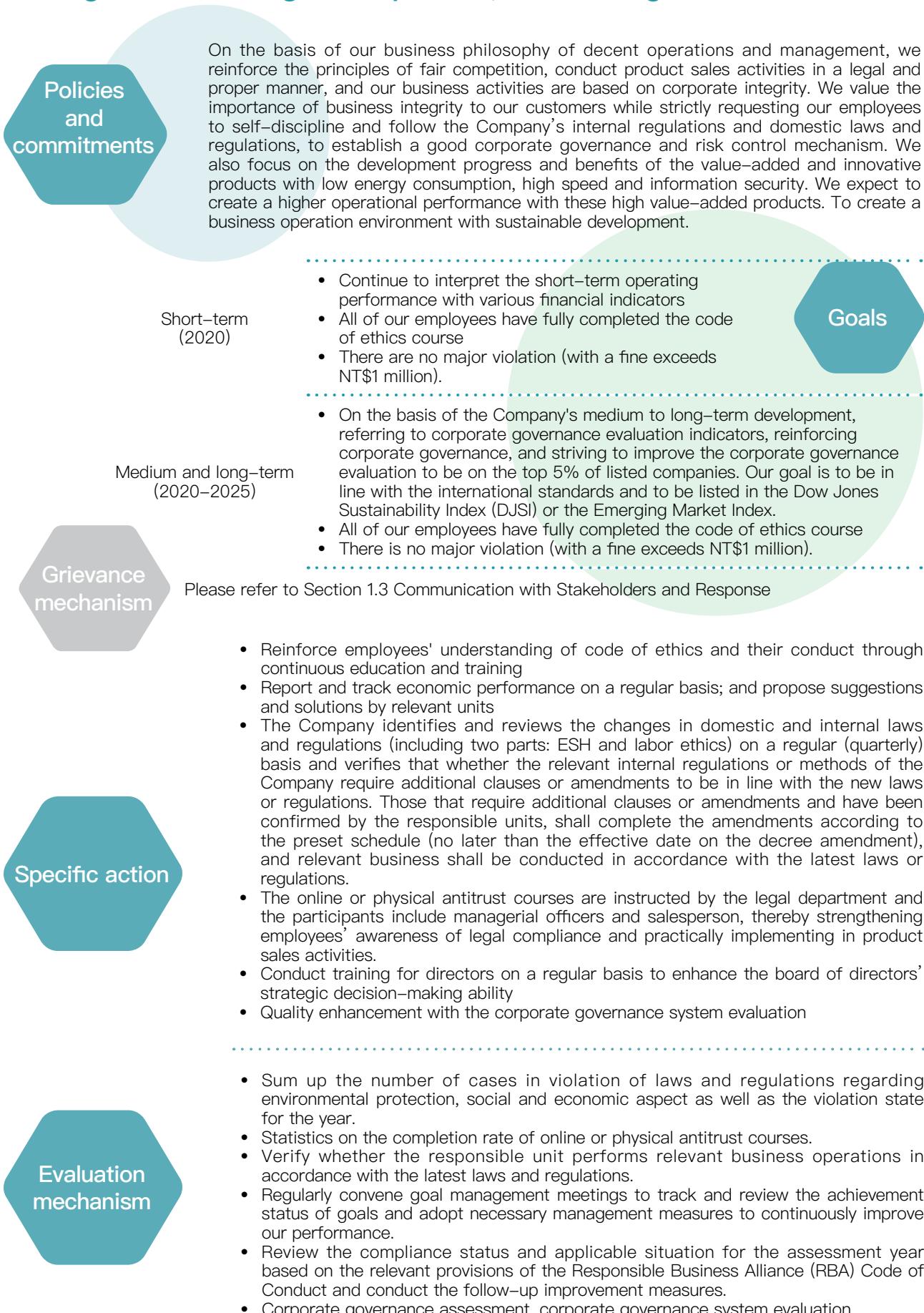
Summary of chapter and section

Winbond upholds the "ethical corporate management" as the Company's highest ethical standards for governing all operational processes in the Company. With the efforts from all of our employees, Winbond was ranked on the top 20% since the first corporate governance evaluation (we were ranked on the top 5% in the first and third session). We will continue to review ourselves with the highest ethical standards to create a reliable and respectable company reputation.



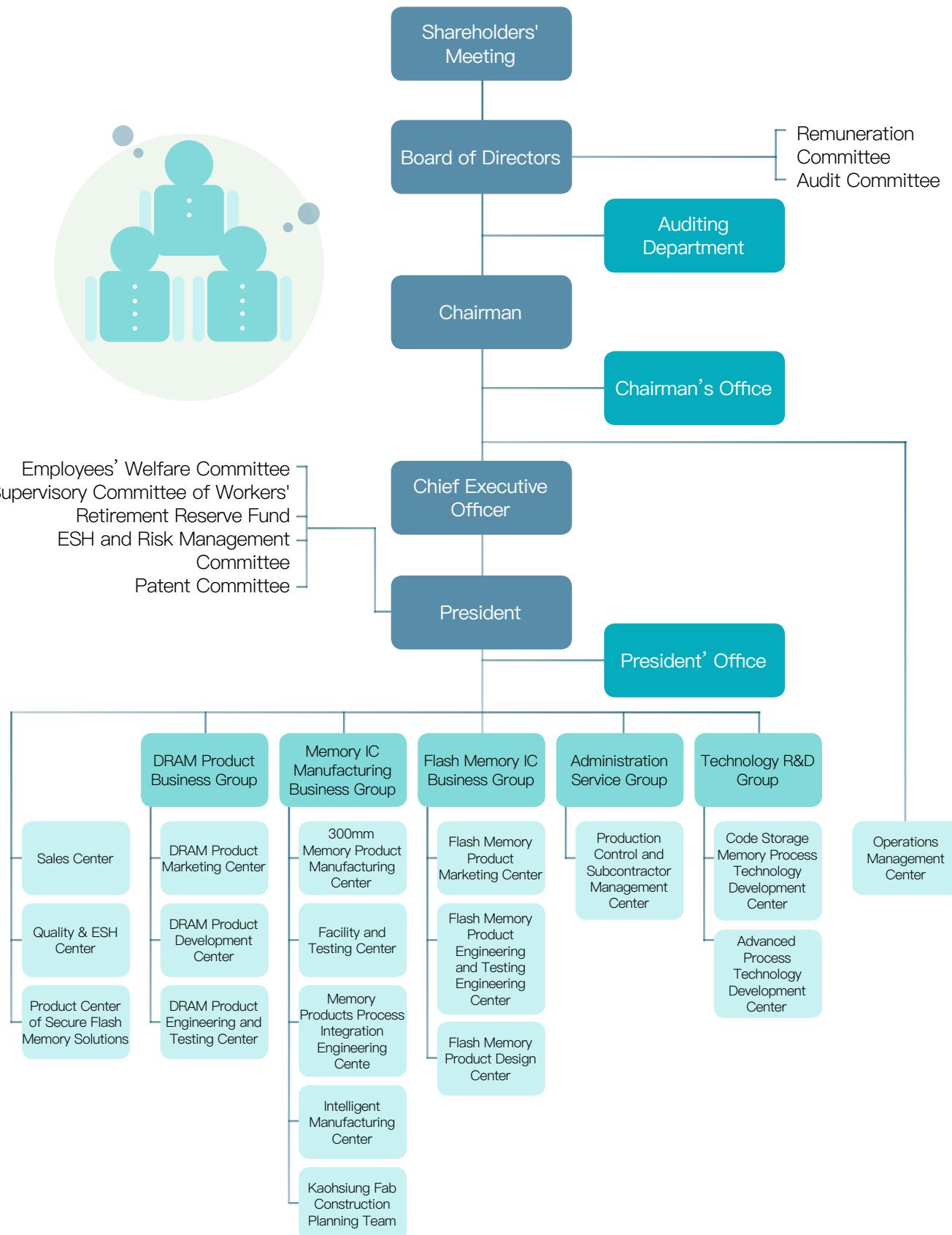
● Material Topic:

Corporate governance, operational performance, ethical corporate management and legal compliance, risk management



2.1 Governance Overview

Winbond's Organizational Chart



2.1.1 Organization of the Board of Directors

The board of directors is the highest governance unit of Winbond. There are 11 directors in the 11th term of the board. Director Fengqiang Miao resigned in January 2019 and Mr. Dachuan Zuo was elected as an independent director in the 2019 regular shareholders' meeting of the Company in order to reinforce corporate governance. In November 2019, independent director Shanzheng Zhang resigned due to running for the president/vice president election. At present, there are 10 directors, including four independent directors and three female directors. More than two-thirds of the directors do not concurrently serve as managerial officers or employees of the Company and all members of the board have extensive management experience in the industry. The only corporate director Walsin Lihwa Co., Ltd. is the founder of Winbond; it is the largest shareholder and has been served a director of Winbond since the establishment of the Company. The board members have a wide range of ages and they have knowledge and professional expertise in different fields. They possess the abilities required to perform the job duties of directors and they can supervise and offer constructive opinions and strategies. In 2019, the average education and training hours of the directors was 9 hours to reinforce the capability of the Board of Directors. The board of directors convenes a strategy meeting on a quarterly basis and the directors are present to understand the Company's finance and business status reported by the operational teams. If there is a significant difference, the directors will supervise managerial officers to propose an analysis and review, to update the operation plan and annual budget in a timely manner and reinforce the communication between the management team and the board of directors. The Company endeavors to enhance the transparency of the Company's operational information. The institutional investor conference is conducted every six months after the board meetings to report to the public in regards to the Company's business and financial conditions. The Company also posts related information on the Market Observation Post System and the Company's website.

Please refer to the 2019 annual report for the information regarding the number of board meetings, attendance rate, and directors' training status.

• Directors' Remuneration and Performance Assessment of the Board of Directors

In December 2019, the board of directors revised the "Director's Remuneration and Performance Assessment Regulations" to "Director's Remuneration and Performance Assessment Regulations of the Board of Directors" and the self-assessment of functional committee was added; on the basis of the "Director's Remuneration and Performance Assessment Regulations of the Board of Directors", the directors conduct self-assessment in December of each year, for the overall performance of the board, the individual performance of directors, and the operational performance of functional committees. The relevant assessment results are summarized by the unit of board meeting affairs and submitted to the Remuneration Committee and the board of directors, and assessment results will be used as reference for the performance improvement plan of the board for the following year, to enhance Winbond's performance regarding sustainable aspect.

The overall assessment results in 2019: the results of the self-assessment by the board of directors and the functional committees indicate that the level of participation in the Company's operations is relatively low and the following measures will be adopted to improve the performance of the board of directors: (1) Enhance the board's ability of risk control for the Company, and (2) Enhance the board members' level of participation in the Company's decision-making process. The 2019 assessment results have been reported to the Remuneration Committee and the Board of Directors on April 30, 2020.

Please refer to the 2019 annual report for the remuneration of the board members.

2.1.2 Remuneration Committee

Winbond established the Remuneration Committee in 2011 and it is constituted by all independent directors. It is responsible for stipulating and reviewing the performance assessment and remuneration policies, systems, standards and structures as well as the individual remuneration of Winbond's directors and

managerial officers. The "Director's Remuneration and Performance Assessment Regulations of the Board of Directors" and "Managerial officers' Remuneration and Performance Assessment Management Regulations" were stipulated accordingly to maximize the long-term effectiveness of the board, ensure the performance of managerial officers complying with the Company's strategies (economic, environmental, and social aspects) and have a competitive remuneration structure, to improve the Company's operational performance.

The Remuneration Committee is constituted by all independent directors and we did not hire remuneration consultant to assist in matters related to the remuneration policy. At least two meetings are convened every year. The proposed opinions are submitted to the board for discussion and the remuneration and welfare standards are adjusted according to the industry market and employees' demands on a regular basis.

Please refer to the 2019 Annual Report for the information regarding the number of meetings and attendance of the Remuneration Committee.

2.1.3 Audit Committee

Winbond value the importance of corporate governance and all important proposals will be first submitted to the Audit Committee for approval. The operation of Winbond's Audit Committee is mainly based on the supervision of the following matters:

1. Appropriate expression of the Company's financial statements.
2. Selection (dismissal) of certified accounts and their independence and performance.
3. Effective implementation of the Company's internal control.
4. The Company is compliance with relevant laws and regulations.
5. Manage the Company's existing or potential risks.

Please refer to the 2019 Annual Report for the information regarding the number of meetings and attendance of the Audit Committee.

2019 Annual Report



Investor Conference Video and Report



2.1.4 Shareholder Treatment and Rights and Interests

Winbond has created related units such as spokesperson, acting spokesperson, investor relations and stock affair services to ensure that investors and shareholders are able to obtain and understand the Company's published information in a timely manner. The revenue report of the Company is published on the website before the 10th of each month. We also value the importance of foreign institutional investors obtaining the equal information and thence we upload the English version of the meeting notification, meeting manual and supplementary materials for the meeting 30 days prior to the shareholders' meeting. We also adopt the electronic voting so that they can submit proposals in writing to the Company at the annual shareholders' meeting, to implement shareholder practices and increase the opportunity for shareholders to provide their feedback to the Company's discussion cases. Moreover, the shareholders' meeting has not passed any extraordinary motion at the shareholders' meeting or changed the meeting agenda prior to the meeting in the past 10 years, to ensure that shareholders are able to legally exercise their rights in the shareholders' meeting.

To protect the equality of shareholders and maintain the fairness of transactions in the securities market, Winbond has established management procedures for prevention of Insider trading, to prohibit insiders such as directors or employees to gain profit from using the insider's information that is not available in the market. Conduct two regular dissemination a year to prevent insider trading and prevent the employees from violating the insider trading regulations due to unfamiliarity of regulations.

Winbond regularly conducts institutional investor conference every six months and Winbond had held two institutional investor conferences in 2019. Through conducting institutional investor conferences, we report to the investors about the Company's operating status, the overall development in the industry, the Company's philosophy and business options policy. We also provide the opportunity for investors to real-time communicate with the Company's management to enhance the attention in the market, emphasize the Company's value and protect the rights and interests of shareholders.

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V. L.O.H.A.S Workplace

VI. Giving back to the society

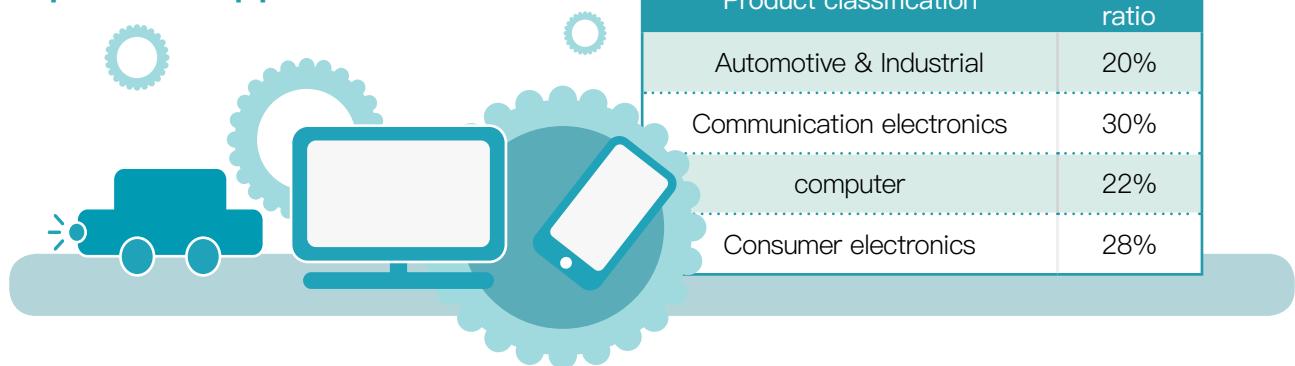
2.2 Operating Performance

Winbond's consolidated revenue was NT\$48.77 billion in 2019, with a decrease of 4.7% compared to 2018; the consolidated net profit after tax was NT\$1.48 billion and the earnings per share after tax was NT\$0.32. The amount of taxes paid was NT\$150 million, accounting for 0.3% of total revenue. [Please refer to Winbond's 2019 Annual Report for description and analysis of other financial performance.](#)

Unit: NT\$ million

Item	Year		
	2017	2018	2019
Operating revenue	47,592	51,190	48,771
Non-operating revenue and expenses	442	468	497
The direct economic value generated [A]	48,034	51,658	49,268
Operating costs	31,268	32,039	35,858
Employee wages and benefits (personal expenses)	8,518	9,369	8,623
Payments to providers of capital	2,354	4,187	4,329
Payments to government by country	67	150	154
Community investment	1	2	10
Economic value distributed [B]	42,208	45,747	48,974
Economic value retained[A-B]	5,826	5,911	294
Net profit before tax	7,098	8,395	1,753
Earnings after tax	5,823	7,728	1,477
Earnings (loss) per share (dollars)	1.54	1.87	0.32

● The revenue ratio of product applications



2.3 Ethical Corporate Management

Winbond regularly conducts applicability identification and compliance verification for the additional or amendment of laws and regulations on a quarterly basis in order to improve the organizational structure and operation management of the Company, implement corporate social responsibility, and create a good corporate reputation and culture. The verification results shall be retained and the stipulation or amendment of the relevant internal operation specifications or procedures of the Company shall be carried out according to the verification results. Winbond did not have any violations regarding the economic, environment and society aspects in 2019, nor did the Company have any violations regarding corruption and anti-competitive practices, as well as marketing and labeling aspects.

Time of legislative notice	Review of laws and regulations related to labor and ethical integrity	Review of laws and regulations related to occupational safety and health, environmental protection, and fire protection
	Review result	Review result
2019 Q1	Review completed in May 2019	Review completed in April 2019
2019 Q2	Review completed in August 2019	Review completed in July 2019
2019 Q3	Review completed in November 2019	Review completed in October 2019
2019 Q4	Review completed in February 2020	Review completed in January 2020

2.3.1 Internal Control and Audit

Winbond's internal audit unit is directly under the board of directors and the appointment and dismissal of the audit officer shall be approved by the Audit Committee and passed by the board of directors. In addition to reviewing and verifying the self-assessment results of the internal control system for each units and subsidiaries, the internal audit unit also evaluates the control operations of various operating activities of Winbond's internal control system to measure the effectiveness and compliance of the existing internal control and its impact. The frequency and content of each periodic audit are determined according to the laws and regulations as well as the risk assessment; other important procedures or special cases may be audited by the auditing personnel at any time or from time to time.

● Audit Plan

On the basis of the results of the risk assessment each year, the auditors choose the audit items and audit frequency, stipulate an audit plan, conduct the audit operation upon approval of the board of directors, and make audit report based on the audit results. The findings and recommendations of the audit report will be tracked until the improvement is made, to ensure that the relevant unit has completed the improvement measures. The audit report and the tracking report will be submitted to the independent directors for review before the end of the following month upon the completion of the audit report. The internal audit officer regularly reports to the audit operations to the convener of the Audit Committee and the Audit Committee, and attends the board of directors meeting to report on the implementation status of the audit operations.

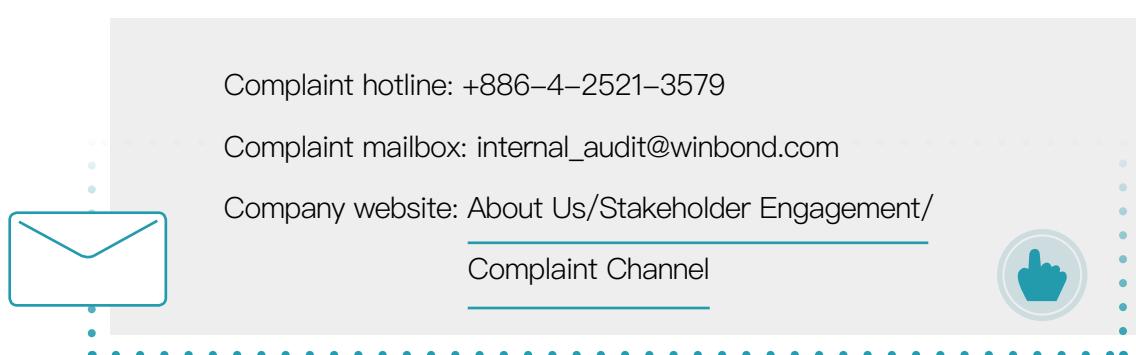
● The Self-assessment of Internal Control System

All units conduct the self-assessment according to the "Regulations for self-assessment of internal control system" and identify the risks and direction for improvement in Winbond's Corporate Social Responsibility System (CSR), to implement self-supervision, timely response to the environmental changes and adjust the mechanism of corporate social responsibility system. The audit unit conducts the auditing for the self-assessment of internal control every year and verifies the shortcoming of implementation and improvement status, to ensure that it is in compliance with the requirements of regulations regarding the social and environmental responsibility. In case of any shortcoming, the audited unit should submit the improvement form of shortcoming. The audit unit shall track the improvement status to ensure that the audited unit completes the improvement measures.

● Grievance Mechanism and Handling Procedures for Unlawful Reporting Cases

Winbond has created a complaint channel and adopted the confidentiality and protection measures for complaint cases. Employees may file a complaint or report any violation of laws and regulations in regards to the Labor Standards Act or code of ethics. For the reporting person or whistleblower, the responsible staff and relevant officers should keep confidentiality for the identity of complaint person/whistleblower and content of the reporting case. All reporting cases must be processed in a confidential file and the identity of complaint person/whistleblower should not be revealed without their agreement. If it is necessary to reveal the identity of the complaint person/whistleblower, the responsible personnel for the case shall first discuss with the complaint person/whistleblower before processing. Officers at all levels should not lead the complainant case to dismissal, job transfer, or any actions that affect the work of the employee; the employee who files the complaint shall not be discriminated or intimidated by other employees. The operating procedures are conducted in accordance with the "Regulations for internal complaints of the Company".

Winbond has stipulated the "Regulations for processing the violation of ethical corporate management". When groups or individuals (such as customers, suppliers, etc.) outside of the Company find that the employees of the Company have violated the code of ethics, they may report to the audit unit. The relevant reporting methods are as follows:



2.4 Risk Management

As a semiconductor manufacturing company, Winbond has an in-depth understanding of the influence and impact of natural disasters, accidental incidents and human accidents on production operations, financial management, information security and climate change, and thus we have always been handling disasters and risk management with preventive measures and positive attitude. We also pursue our vision of corporate sustainable development through the implementation and management of risk engineering control, safety regulations and standards, to achieve the highest standards in the semiconductor industry, finance security and information security. ([Please refer to Chapter 4.1 for the risks and opportunities in climate change](#) ; [Please refer to Chapter 5.4.3 for the risks regarding environment, safety and health](#))

Identification of risks and opportunities	Description of impact assessment	Response measures	Effectiveness management
Operational risk management			
Product quality defect	Lower customer's trust level and cancel orders.	When there is a product or manufacturing process that does not meet the requirements, it is required to immediately notify the responsible personnel with authority for corrective measures, to ensure that the disqualified products will not be shipped to the customer and conduct identification and segregation for the possible disqualified products. The relevant units must analyze root cause and the impact on the production process, as well as adopt the improvement measures.	The products that undergo strict quality control process to enhance product quality during the production process will facilitate to the long-term cooperation relation with customers and their satisfaction level.
Infringement	Loss in finance and corporate reputation, and violation of laws (may cause civil or criminal liability to the management).	Prevention in advance: The product design and development work together with the intellectual rights departments to conduct relevant search, research, and analysis of intellectual property rights, and the measures such as design around or obtain legal authorization are adopted to avoid any possible infringement circumstances. Response afterwards: If an accusation of infringement is filed, the legal department will first clarify the facts with the relevant units and actively protect the rights and interests of the Company and our customers.	Winbond has not been involved in any infringement disputes or litigation since 2016. (there were only a few litigation cases that Winbond was involved before the period; all of the cases had been settled without significant impact on Winbond).

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V.LOHAS Workplace

VI. Giving back to the society

Identification of risks and opportunities	Description of impact assessment	Response measures	Effectiveness management
Operational risk management			
Patent risk	Patent litigation, negotiation of patent authorization.	Actively face the measures adopted by the plaintiff regardless on the purpose of commercial consideration, defending intellectual rights, collecting royalties or other unknown purposes.	Discuss with external lawyers and plan for the response. Interact and negotiate in a rational manner with mutual respect, to achieve a win-win situation and outcome.
Financial risk management			
Risk of exchange rate	The Company's exchange rate risk caused by the fluctuation of foreign currency exchange can be managed by using the forward exchange contracts within the scope of the regulations for the financial derivatives transactions.	<p>Manage the financial market information in a timely manner, judgment for the trends, be familiar with financial commodities, regulations and operational tactics, and provide adequate and timely information to the management and relevant departments for reference.</p> <p>The main economic purpose for engaging in the transaction of financial derivatives is to prevent risk; the top priority for choosing the transaction target is credit, so as to avoid losses due to the inability of contact fulfillment by the counterparty. Moreover, the transaction target is chosen from the financial institutions with low credit risk, good relationship with the Company, and can offer professional information.</p> <p>Winbond's sets the limit of unrealized loss on all financial derivatives contracts to 20% of the contract value or 3% of stockholders' equity, whichever is lower. The financial unit evaluates the financial derivatives every month and generates a report therefor, which is submitted to the officer of finance and high-level management authorized by the Board of Directors for review and prediction of the risk of each transaction and the potential gain or loss.</p>	<p>The net exchange loss (including the profit and loss of the financial derivatives) was NT\$67,238,000 in 2019, accounting for 0.18% of the entire operating revenue of the year. The Company undertakes financial derivatives to prevent the risk of foreign exchange based on the state of foreign currency assets and liabilities, as well as the fluctuations of the exchange rate. As of the end of 2019, the financial derivatives for the risk of foreign exchange amounting to USD 165,280,000 and RMB 80,100,000. The unrealized benefits of the fair value assessment totaled NT\$69,424,000, and the amount of profit and loss were all within the controllable range.</p>

Identification of risks and opportunities	Description of impact assessment	Response measures	Effectiveness management
Financial risk management			
Risk of interest rate	The risk of interest rate for the Company is mainly the long-term loans with floating rate for meeting the operational needs of manufacturing process upgrade or expansion of production capacity.	The Company negotiated better interest rates based on the market condition at the time of financing, to reduce the impact caused by the interest rate fluctuation. The corporate bonds issued by Winbond are in a fixed interest rate, denominated in NTD, and measured by amortized cost, which will not affect cash flows and fair value during interest rate fluctuation.	The consolidated net interest expense in 2019 amounted to NT\$123,777,000, accounting for 0.25% of the consolidated revenue in 2019. Rate changes are not expected to produce much impact on Company operations. The impact of interest rate fluctuation on the Company's operations is within the controllable range. In the future, Winbond will watch closely of interest rate fluctuation and its impact on cash flows.
Information Risk Management			
Information Security	<p>A large scale infection of ransomware on factory machines that caused a production suspension</p> <ol style="list-style-type: none"> 1. The infected machine does not have a backup or the backup is damaged and cannot be recovered. 2. The response resources and information are incomplete and the personnel are unfamiliar with the notification procedures, which had affected the response and recovery time. 	<ul style="list-style-type: none"> • During the maintenance of the machine, conduct the virus scan for the entire machine, completely backup the machine and store the data separately. • Regularly backup the machine and store the data separately. • Conduct large-scale drills in the factory to verify that the personnel, equipment, and information are sufficient to respond to the needs of contingency and recovery. 	<ul style="list-style-type: none"> • The procedures and environment have been created for factory backup and offline data saving. • Conduct large-scale contingency drills in the factory and improve the contingency reporting procedures and the required information according to the results of the drills. • Conduct the non-precaution drills in different areas every year and be familiar with the notification and response procedures.
	<p>The infrastructure of the factory suffers from the attacks of malware and affects the production operations</p> <p>Malicious attacks on facilities such as water, electricity, and air conditioners that support the factory operations and affects the production.</p>	<ul style="list-style-type: none"> • Conduct self-assessment and analysis on the current status of information security management, as well as conduct risk assessments and stipulate the improvement plans. • Conduct the contingency drills to verify that the personnel, equipment, and information are sufficient to respond to the needs of contingency and recovery. 	<ul style="list-style-type: none"> • Implement the improvement operations for the physical and logical environment in accordance with the improvement plan in 2020. • Conduct the response and recovery drills for the information security incident in the second half of 2020, to be familiar with the notification and response procedures.

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V. LOHAS Workplace

VI. Giving back to the society

In the beginning of 2020, many enterprises had to face the problems such as factory shutdown and supply chain in shortage crisis due to the outbreak of COVID-19 pandemic around the world. Winbond pays attention to the development of the epidemic, monitors manufacturers' production and operation status on a daily basis, and increases the safety level of inventory to timely response to the emergency incidents. The Company also conducts strict internal and external measures in fighting against coronavirus, including the creation of notification procedures, infrared body temperature measurement, visitor management, spacing out meal times, regular disinfection, etc., to ensure the safety of employees, prevent product supply from being affected by the epidemic and ensure normal operations of the Company.

2.5 Information Security Management

Winbond has stipulated the "Information Security Policy" and created an information security unit consisted of representatives appointed by relevant departments; the unit is responsible for the Company's information security control operations, including research, discussion, establishment, promotion, and auditing. Regularly convene meetings to discuss and resolve subjects regarding information security related topics, including human resources, physical security, information and logical security aspect; an extraordinary meeting will be held during the circumstance of major changes or information security incidents.

For the aspect of assessment, analysis and response measures of the information security risk, we adopt an in-depth defense framework for cyber-attacks and data leaks, and create a network and computer security protection system to control and maintain the Company's important operations such as manufacturing and ERP, including the new-generation firewall/intrusion detection/intrusion prevention system, and Security Information and Event Management (SIEM), to reinforce the defense capabilities for information security. Through the annual system auditing, backup and recovery, remote backup, emergency response for information security incidents, to be familiar with various operating procedures and review network security specifications and procedures from the processes and verify the appropriateness and effectiveness of various information security mechanisms. Starting in 2017, we had conducted information security questionnaire survey on the commissioned factories; we carried out a field inspection in 2019 to ensure that the Company and customers' products and data are under suitable information security protection.

In addition, we reinforce the access control and monitoring, information system access authority management and preservation and review of access records for the security demands for the Company's important products and information, to strictly control personnel access and data access, prevent company information from being inappropriately accessed and tampered, and prevent theft or leak of business secrets and intellectual property.

We continue to conduct information security-related dissemination and communication with our employees through the annual education and training as well as internal announcements, to practically implement the information security policy. In 2019, all of our employees have taken the "Information Security Awareness Course" and passed the course assessment. In addition, the information engineering division conducts annual drills for the data protection as well as important operation and production systems to ensure that data backup and recovery and switching of backup system are in accordance with the response procedures, and the operations are resumed within the schedule time.

III. Excellent Quality



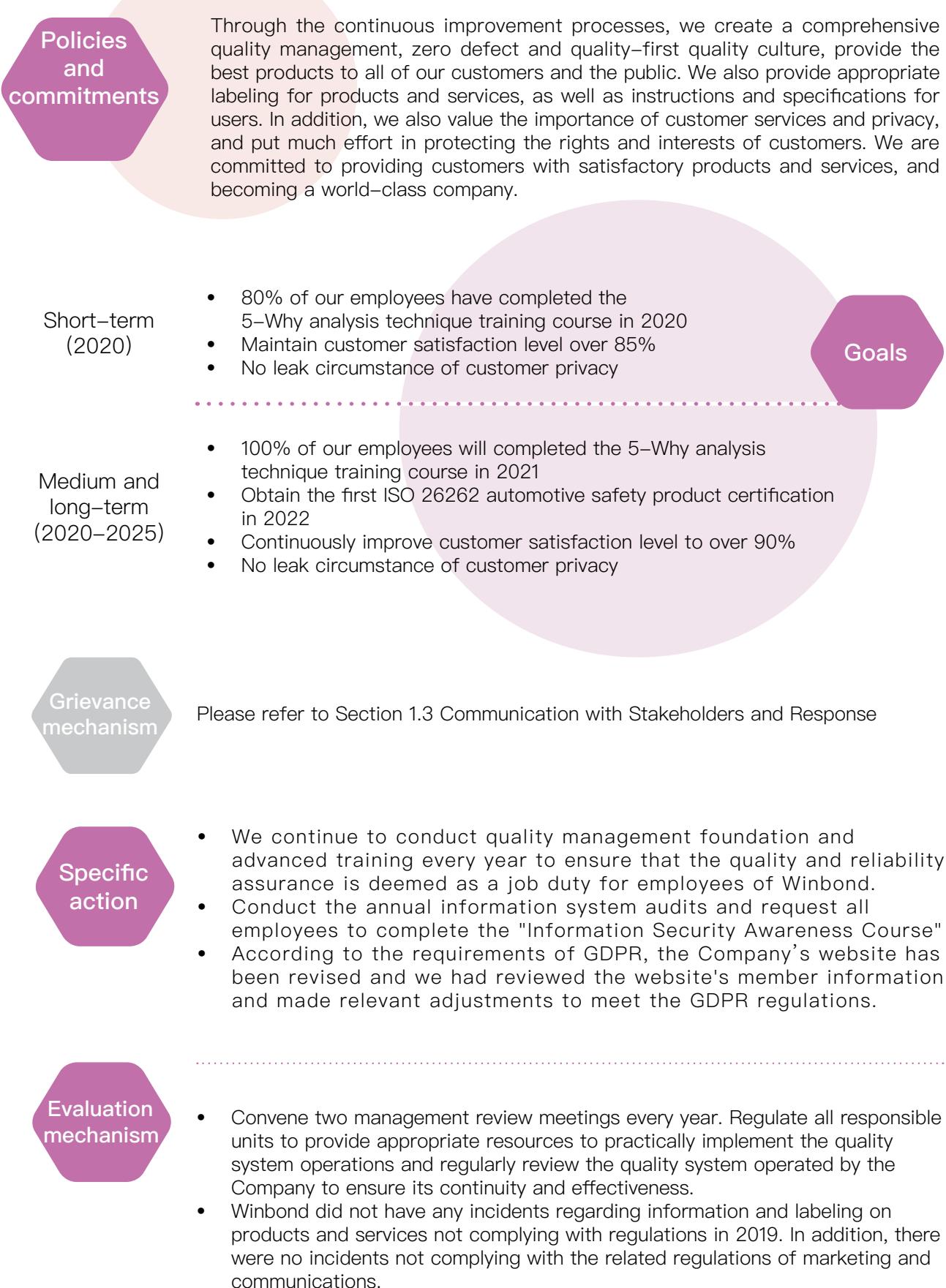
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Summary of chapter and section

Winbond deeply understands that the R&D and manufacturing process in each stage will affect the quality and reliability of the final products, and thus we focus on producing quality product with reliability from the beginning of the manufacturing process. Our commitment to quality is the foundation of our sustainable success, so the quality and reliability assurance is deemed as a job duty for every employee of Winbond. All departments and individuals are responsible for the "zero defect" operations. Winbond is dedicated to establishing a corporate culture with the concept of comprehensive quality management and quality first, as well as providing clients with satisfactory products and services through the continuously improving processes".



● Material Topic: Product service and labeling, quality management and customer privacy



3.1 Product Quality

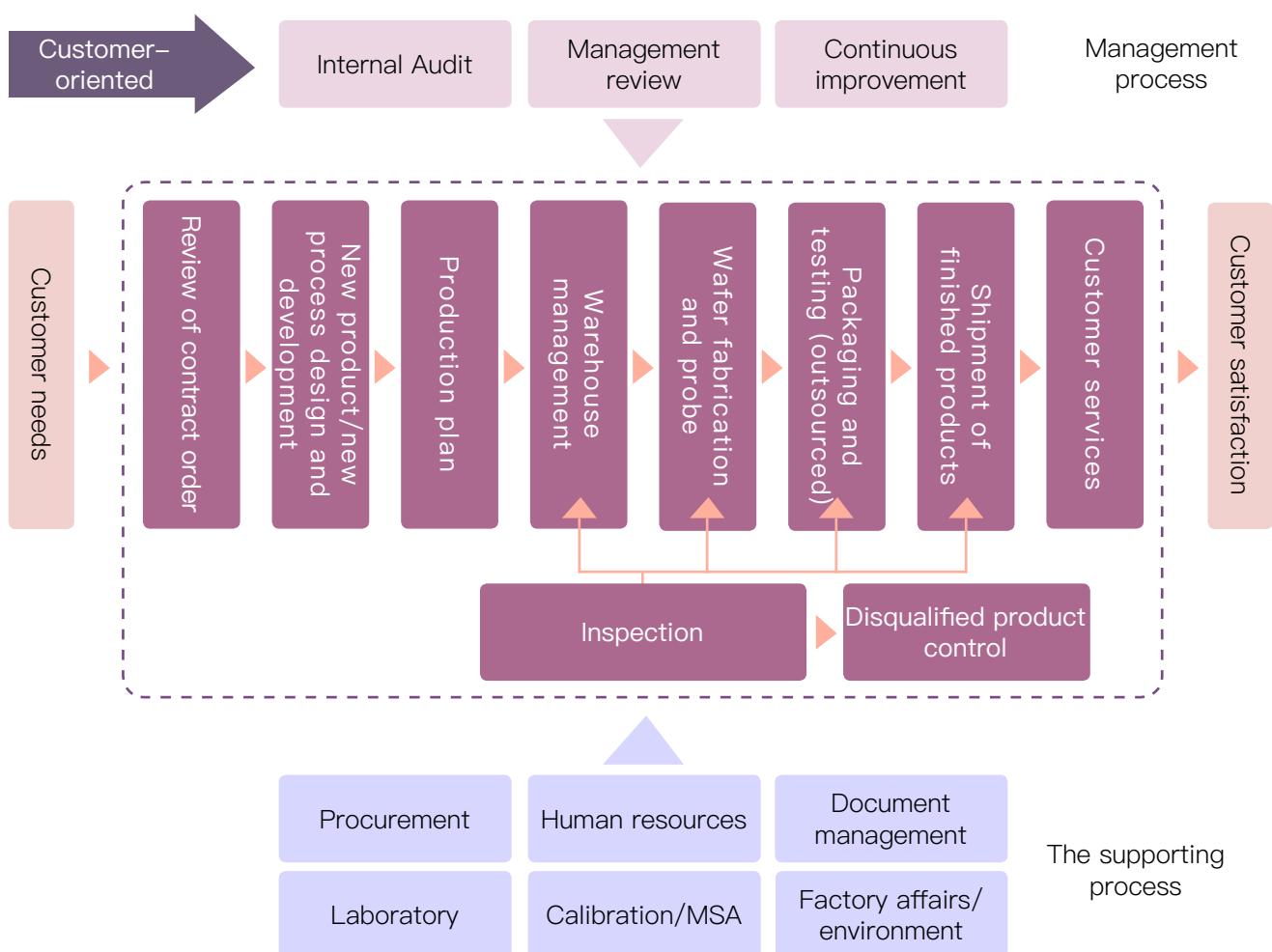
3.1.1 Quality Management System and Practice

● Quality Management System

Winbond is dedicated to establishing a corporate culture with the concept of comprehensive quality management and quality first, as well as providing clients with satisfactory products and services through the continuously improving processes".

In accordance with the quality management system standard for automotive industry IATF 16949, the five core tools are implemented for quality management: "Advanced Product Quality Planning and Control Plan", "Failure Mode Effects Analysis", "Measurement System Analysis", "Statistical process control" and "Production Parts Approval Process" as well as conduct continuous improvement by using the 8D and 5-Why technique.

● Process Flow of Quality Management System



● Pursuit of Quality Service Value

Winbond will continue to provide customer-oriented services and devote resources in developing products with our competitive edge in the market. We conduct annual education and training programs on a yearly basis. In addition to the annual Total Quality Management (TQM) training courses and competitions for the quality management training, Winbond organizes the comprehensive 5-Why and ISO 26262 key concept courses in 2019 in order to enhance our employees' quality awareness and applications of quality control tools, and meet customers' needs and expectations for in-car specifications products.

Course title	Total hours	Number of participants
The 5-Why Key Concept Deepening and Practical Operation Course	4,620 hours (90 sessions)	1,540
ISO 26262 basic concepts	582 hours (6 sessions)	291
ISO 26262 Safety Analysis	300 hours (2 sessions)	52
TQM training courses	27,050 hours (105 sessions)	16,414

Winbond also encourages employees to participate in the "National Unity Circle Competition" organized by the Industrial Development Bureau of the Ministry of Economic Affairs, to demonstrate team spirit, strengthen the organizational constitution, and enhance competitiveness. This stiff competition must first pass the selection competition held in the north, central, south region before joining in the on-site evaluation and final presentation; the participants will be awarded with the Gold, Silver and Bronze Tower Awards according to their total score.

Winbond participated in the competition in 2019. Winbond establishes a comprehensive quality management, zero defect and quality-first quality culture through the continuous improvement processes, and upholds our core spirit of "zero defect in quality and reliability assurance" to win one Gold Tower Award and three Silver Tower Awards. This achievement is a great recognition for Winbond's efforts in pursuing of excellent quality.

Winbond has won a total of 18 awards from 2013 to 2019, including 4 Gold Tower Awards, 8 Silver Tower Awards and 6 Bronze Tower Awards.



The 26th term
2013

The 27th term
2014

The 28th term
2015

The 29th term
2016

The 30th term
2017

The 31th term
2018

The 32th term
2019

- Gold Tower Award
- Bronze Tower Award

- Silver Tower Award
- Bronze Tower Award

- Gold Tower Award

- Gold Tower Award
- Silver Tower Award
- Bronze Tower Award

- Silver Tower Award
- Bronze Tower Award x2

- Silver Tower Award x2
- Bronze Tower Award

- Gold Tower Award
- Silver Tower Award x3

3.1.2 International System Certification

We have strengthened the yield analysis, supply chain management, customer satisfaction level and corporate social responsibilities to create a good and long-term reputation with our strict production process control and quality control operations. We have also obtained international standards certification such as ISO 26262, ISO 9001, IATF 16949, QC 080000, ISO 14001 and ISO 45001, to ensure that we comply with the requirements of international standards in the economic, environmental and social aspects as well as meet the high standards of our customers.

Winbond is actively acquiring certification regarding various aspects such as product quality, hazardous substance management, production environment management and corporate social responsibility, to ensure that we meet the requirements of international standards in economic, environmental, and social aspects, as well as the high standards of our customers.

ISO 9001	
IATF 16949	
QC 080000	

ISO 14001	
ISO 45001	



ISO 26262 Road vehicles – Functional safety – process certification

With the development of Internet of Vehicles, the advanced smart automotive electronic products have become the global trend of development in the past few years which has attracted many international semiconductor manufacturers to aggressively invest in the semiconductor industry of automotive electronics. The reliability and safety of products are the most two important basic inspection indicators for the quality certification of automotive semiconductor products. The functional safety standard ISO 26262 published in 2011 is the certification indicator for verifying whether the automotive electronics suppliers fulfill the requirements of Automotive Safety Integrity Level (ASIL).

Winbond has been devoted much effort in developing and providing high-quality products and services for a long time. In the past few years, Winbond has been steadily developed in the field of automotive electronics. Winbond has entered the global advanced safety system supply chain for automotive electronics in order to upgrade the reliability and functional safety of Winbond's automotive electronic products. Starting in 2018, Winbond had implemented the consultation and certification services from local SGS expert team in Taiwan. On February 21, 2019, Winbond announced that it was awarded the ISO 26262 certificate by SGS, the world's highest safety standard for automotive electronics, and Winbond has become the first vehicle memory manufacturer in Taiwan to receive the ISO 26262 Road vehicles – Functional safety – process certification. This also reinforce Winbond's development foundation of product functional safety and it has become a reliable partner for international car manufacturers. This not only give Winbond the competitive advantage for obtaining domestic and international orders but also can facilitate to obtain the Automotive Safety Integrity Level (ASIL) product certificate for individual products, to further expand our market share in the automotive electronics market and provide the automotive electronic products that meet the needs of supply chain for international automakers.

Winbond has entered the global advanced safety system supply chain for automotive electronics and successfully obtained the world's highest safety standard ISO 26262 for automotive electronics. Its specifications include the entire life cycle such as company functional safety management, conceptual design, system aspect, design of hardware and software, verification test, manufacturing, operations, maintenance and decommissioning, each phase must meet the requirements of product functional safety to fulfill the needs of the high-level automotive electronics market.

3.2 Customer Privacy and Satisfaction Level

Winbond strictly safeguard the information in regards to customers, and all of the business information such as the correspondence documents and data with customers are strictly controlled by the Company's internal system. Approval and authentication of the operation authority of relevant internal personnel shall be conducted in accordance with relevant operational specifications and procedures. Starting in 2013, all internal employees are required to pass the training course of "Information Security Awareness" every year. To protect the security of R&D and production materials, the employees in Jhubei office building are required to register their personal mobile phones and install a camera management APP for shutting down their camera and it is prohibited to take photo or video in the Company; the metal detection door is installed at the access of the wafer fabrication and probe factory, to control the devices from accessing the production line; manage the contractors from accessing the factory area with face recognition to protect customer privacy and prevent business secrets and intellectual property rights from being stolen or leaked.

Winbond did not have any complaints regarding infringement of customer privacy or loss of customer information in 2019; there is no fine was imposed due to violation of regulations in product liability.

The EU's GDPR applies since May 2018. Winbond has revised the Company's website, reviewed the website's member information and made relevant adjustments to meet the GDPR regulations. We have included the relevant provisions of the GDPR in online course regarding personal data protection law; there were 2,528 people participated in the training course in 2019 and all of them passed the training course.

Winbond conducts a customer satisfaction questionnaire survey on a yearly basis. The 2019 customer satisfaction survey consists of three key indicators. The following are the items with an average satisfaction of more than 3.5 points (out of 5 points): sales (89%), products and technical supports (86%) and product quality (88%); the average satisfaction level is over 87.7%. In addition to the establishment of a head office in Taiwan, Winbond also establishes subsidiaries and service bases in the United States, Japan, Israel, China and Hong Kong in order to enhance product competitiveness and fulfill the needs of local customers around the globe. Other than the aforesaid regional sales centers, we also actively develop distribution channels in many countries. In 2019, dealerships and technical service centers are built throughout Asia, Europe, and America.

Winbond actively promotes the Electronic Data Interchange (EDI) platform for the implementation of various operations such as providing order information, shipment information and invoice information delivery, etc., to accelerate order processing for customers and improve data quality. We also provide a collaboration platform for processing the shipping and delivery of freight forwarders, which will not only notify freight forwarders of the shipping time but also allow the freight forwarders to check the time and location for picking up the goods and report their shipment status, to enhance the overall operational efficiency.

- The 24-hour intelligent and instant response Chatbot

To respond to customer inquiries in a timely manner, Winbond has created a 24-hour intelligent and instant response Chatbot on the official website. We also cooperate with distributors in responding to customer feedback and make improvement accordingly. Electronic



I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

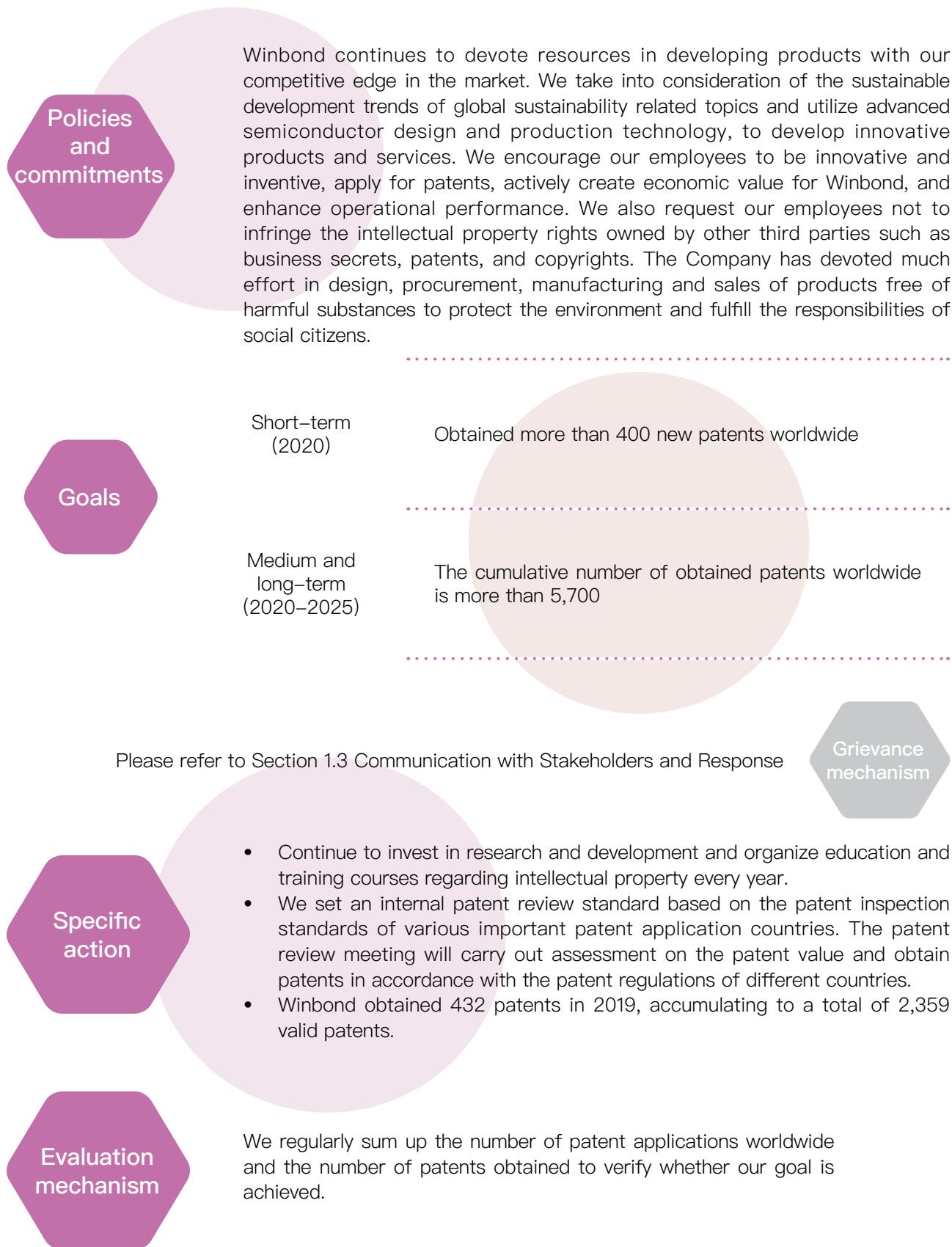
IV. Environmental Sustainability

V. LOHAS Workplace

VI. Giving back to the society

3.3 Innovation and Patents

● Material Topic: Innovation management and patent



● Research and development in innovative technology

Winbond foresees the new development opportunities in the trends of market, utilizes advanced semiconductor design and production technology, and continuously pursues sustainable innovation of products and technologies, to address future demands at Internet of Everything (IoE) and edge computing. Winbond's R&D expenses in 2019 is about NT 8.1 billion, which mainly used in capacity expansion and process upgrade.

Our 25nm process has begun volume production in 2019. As we continue to invest in the development of advanced technology, we expect the 20nm DRAM process to enter scale production when it achieves satisfactory yield. It will set a solid foundation for Winbond's long-term growth and development. For Code Storage Flash products, we will continue to develop 45nm NOR Flash to accommodate demand of high density. We have always been relentlessly building up our R&D capability. We continue to enhance the technological competitiveness through strong core technology and value-added products.



● Successfully developed technologies and products

1. Dynamic random access memory (DRAM)

Winbond is Taiwan's only supplier with in-house process technology. It has completed the development of 25nm DRAM, and continued to improve the yield for the in-house 25nm process technology. Winbond is proceeding to develop the 25nm shrink version process in order to meet customers' requirements of high quality, high reliability, and special process specifications. °

2. Code Storage Flash Memory

Winbond continues to use the 4Xnm process to develop code storage flash memory that offers added value, security, high speed, low power consumption, low voltage or encryption. The company also takes a step further to develop more advancing process in order to secure its leading position in serial NOR flash memory. In addition, Winbond continues to promote the serial interface and the more economical 1Gb/2Gb/4Gb/8Gb products to meet the demand of different end user applications.

● Future research and development plan

Winbond is expected to invest approximately NT\$9.3 billion in R&D in 2020. The directions for future research and development are described below.

1. Dynamic random access memory (DRAM)

The company works to improve yield for 25nm process and invests in the development of 2xnm process to reduce product costs and improve quality.

2. Code Storage Flash Memory

Winbond continues to develop medium and low-capacity products with low power consumption, high-frequency bandwidth, and better data transmission rate, which are mainly used in mobile phones, tablet devices, low power consumption mobile devices, wearable devices, Internet of Things, automotive and industrial electronic products, etc.

For more innovation development, market analysis and future planning, please refer to [2019 annual report](#).

2019 Annual Report



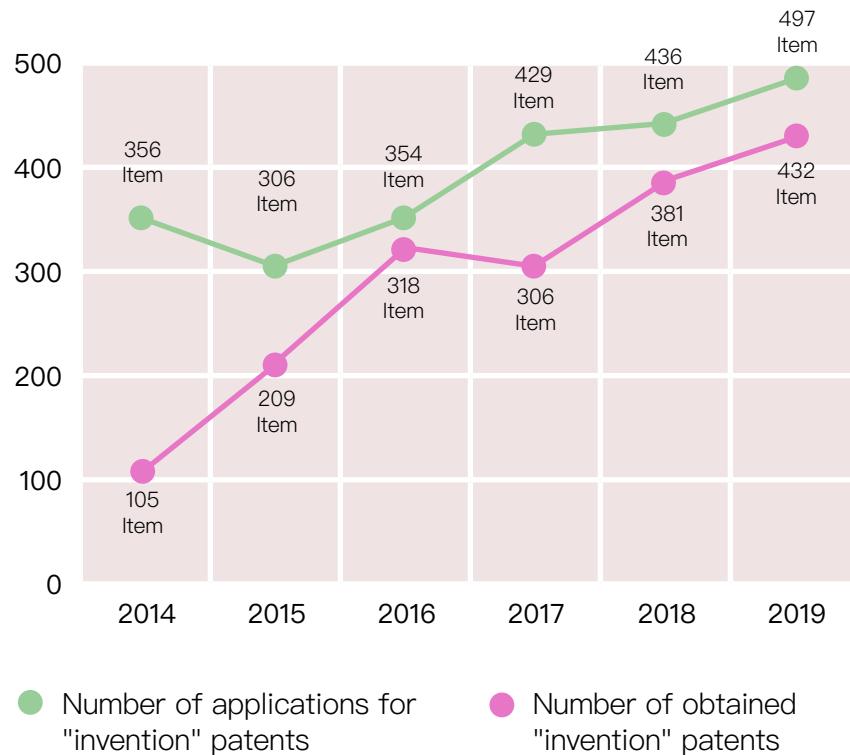
● Patent management

Winbond encourages employees to be creative, inventive and file patent applications in order to implement the management and planning of intellectual property rights, so to protect the intellectual property rights and safeguard our R&D achievement. We stipulate relevant internal measures (such as the patent application and incentive measures) and create the responsible units (such as the intellectual property rights department and patent committee) to conduct management, assessment, awards and planning of intellectual property rights. Through internal patent assessment and strict inspection mechanism of external competent units in accordance with the patent laws and inspection requirements of patent offices around the world, the Company is able to obtain valid patents issued by many countries.

The internal R&D units of the Company have set annual targets for inventions. In addition, we conduct several meetings for innovation and brainstorming on important technical topics every year to proactively explore inventive ideas for facilitating patent outputs. For the cumulative patents of the Company, we regularly categorized into different grades based on the Company's assessment criteria for the utilization of patents according to the needs. We also organize many education and training regarding intellectual property rights according to the needs of the R&D and production units. We reinforce the concept of protection of intellectual property rights for our employees and stimulate their ideas for inventions, and assist them in generating invention proposals; and the number of proposals significantly increased year by year.

Item	2017	2018	2019
Obtained patents (cumulative number of valid patents)	1,658	1,990	2,359
Obtained patents for the year (number of patents)	306	381	432

● Number of patents over the years



● Proposal of intellectual property rights and education

We provide long-term education of intellectual property rights for employees in order to enhance the competitiveness of the Company, keep improving our product design and manufacturing process, and respond to the market demands; we also establish diversified proposal channels to help employees understand the concept of intellectual rights and apply for inventions. As of 2019, we have cumulatively obtained a total of 2,359 valid patents. In the future, Winbond will encourage employees to aggressively innovate, solve problems, and continue to improve product quality to enhance Winbond's competitive advantage.



Our employees stay true to the spirit of "striving for excellence" and actively participate in the "IP Workshop"

3.4 Sustainable Management of Supply Chain

• Material topic: Supply chain management



Winbond's suppliers and subcontractors must comply with the code of conduct, environmental policy of green products, Responsible Business Alliance (RBA), Universal Declaration of Human Rights, International Labor Office Tripartite Declaration of Principles, Winbond's Code of Ethics, and Hazardous Substance Free (HSF) policy. At the same time, we work together to follow the code of ethics based on the Responsible Business Alliance (RBA) through close cooperation and communication. We also continue to promote and improve the supply chain to comply with Winbond's code of conduct for suppliers, increase local procurement and facilitate the collaborative sustainable development.



Short-term
(2020)

- In 2020, 100% of our subcontractors have completed the RBA SAQ Supplier's Self-Assessment Questionnaire.
- Stabilize the supply chain and achieve the goal of 0% material shortages.
- 100% of our suppliers are committed to complying with Winbond's ethics and integrity policy.
- We request our suppliers and subcontractors to use materials complying with laws and regulations; it is prohibited to use hazardous materials and conflict minerals.

Medium and
long-term
(2020–2025)

- In 2021, a total of six subcontractors have completed the RBA_VAP Validate Audit Process.
- Create a stable supply chain and accomplish the goal of 0% material shortage to ensure Winbond's business operations.
- We request our suppliers and subcontractors to use materials complying with laws and regulations; it is prohibited to use hazardous materials and conflict minerals.



Please refer to Section 1.3 Communication with Stakeholders and Response



- We disseminate Winbond's ethical and integrity policy to all suppliers every six months.
- A total of 20 (14 raw material suppliers and 6 subcontractors) vendors were investigated for conflict minerals.
- According to the inspection specifications for suppliers, the audit results of 37 raw material suppliers and 11 subcontractors in 2019 fulfilled Winbond's requirements.
- Suppliers regularly convene the suppliers conference every year and we disseminate Winbond's policy for electronics quality and corporate social responsibility in the meeting.

Specific action

- The subcontractors' management conference was held at the end of 2019. During the meeting, we disseminated Winbond's quality requirements and share the new knowledge regarding packaging and probing technology with our subcontractors, to achieve a win-win and mutual benefit situation.
- Conduct training courses for security guards and organize RBA audits.
- Help improve suppliers' performance in the economic, social, and environmental aspects based on the inspection standards for sustainability.

Evaluation mechanism

- We conduct management review meetings on a yearly basis, to discuss how to continuously enhance suppliers and subcontractors' management performance, and track and review the implementation progress of the preset goals to continuously improve our performance.
- Through aperiodic questionnaires survey or regular on-site audit to verify the implementation status of subcontractors regarding quality management, green inspection and social responsibility.
- The outsourcing management KPI is stipulated every year. For the inspection items that fail to meet the standard, we will discuss how to improve the management performance of subcontractors as well as track and review the implementation progress of the preset goals. After achieving the preset goal, we will uphold the spirit of continuous improvement to keep improving our performance.

3.4.1 Management Policy for Suppliers

Winbond's procurement includes six categories: equipment, parts and components, raw materials, factory affairs, automation, and outsourced processing. Winbond has gradually expanded its implementation of corporate social responsibility from the Company to its supply chain. Winbond's policy for suppliers aims to create an everlasting partnership with our suppliers. In addition to quality, delivery date, price and technology capability of manufacturing process, suppliers are also required to be in accordance with technology capabilities regarding corporate social responsibility, such as green products, conflict minerals, and ethical corporate management. We look forward to help our suppliers to having the same corporate social responsibility concepts and standards with Winbond.

On the basis of the concept of practical implementation of corporate sustainable management, Winbond is committed to cooperating with suppliers, enhancing the flexibility of supply chain, creating a good and stable supply chain relationship with suppliers, and actively pursuing the practice of corporate social responsibility. We actively request our suppliers to comply with the subjects such as conflict minerals, ethics and integrity to be in line with the trend of global social responsibility.

Winbond's new supplier management includes the assessment of quality system questionnaire in regards to quality, delivery date, services, technology and Responsible Business Alliance (RBA). Winbond disseminates corporate social responsibility to suppliers every year and requests all suppliers to sign the Integrity Agreement. As of 2019, all of the suppliers (a total of 159) have signed the agreement.

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V. LOHAS Workplace

VI. Giving back to the society

Winbond convenes a suppliers conference every year to disseminate Winbond's policy for electronics quality and corporate social responsibility. We reinforce our cooperation with the outsourced suppliers through communication and interaction between both parties. We also awards suppliers with excellent performance to show our appreciation for the long-term cooperation and support from our suppliers.

● Contractor Management

Winbond's relevant regulations for all contracts entering the factory area:

1. They should join Winbond's electronics contractors' agreement meeting and sign the "Safety, Health and Environmental Protection Management and Letter of Commitment for Education Training".
2. For the operational personnel entering Winbond's factory area, their employer must insure labor insurance for them and provide the insurance certificate to Winbond for verification.
3. The operational personnel who enter Winbond's factory area should apply for a work safety permit and they shall be notified of the hazard factors in the factory area with written records. All necessary protective measures in accordance with regulations shall be adopted prior to the operation.
4. When conducting high-risk operations in Winbond's factory area, qualified security guards are required to stay on the site to supervise and be responsible for all management tasks regarding safety and health within the business scope, to conduct self-inspections and stipulate the safety and health management plan to prevent occupational disasters as well as the environmental protection management plan.
5. Before conducting high-risk operations (such as construction of power system, steel structure assembly, installation of construction racks, confined space, crane operations, hot work operations, special gas/chemical pipe disassembly operations, etc.), a self-inspection and application for the operation are required. For operations with special risks, an operation safety and protection plan must be submitted to Winbond for review.

● Localized Procurement

Winbond's suppliers come from the United States, Japan, South Korea, Taiwan and some other countries; our localized procurement is mainly based on important operating bases such as Japan, South Korea and Taiwan. The ratio of Winbond's localized procurement of raw materials has reached 99.5% in 2019, with a decrease of 0.4% compared to the previous year (one new foreign vendor was added). The procurement of direct materials accounted for the highest procurement proportion over the years, with a ratio as high as 43%.

● Supplier's Local Procurement Status in 2019

Category	Ratio of the amount (domestic)	Ratio of the amount (overseas)
Wafer	41.54%	0.16%
Chemical	45.39%	0.39%
Gas	10.76%	0%
Target	1.76%	0%
Total	99.45%	0.55%

3.4.2 Supplier Audit

Winbond conducts regular assessment on qualified suppliers. The assessment contents include quality, delivery date, services, technology and price standard aspects, to define the rating grades for suppliers. In addition, Winbond conducts audits on suppliers and subcontractors on a yearly basis to reduce the possible risks in the supply chain. The audits are based on the three major aspects of economy, environment and society and the standards include corporate social responsibility (CSR), Responsible Business Alliance (RBA) Code of Conduct, Conflict Minerals, RoHS, REACH and relevant guidelines of QC 080000. For suppliers who are rated under Winbond's prescribed scores, Winbond will handle the matter according to the inspection specifications for suppliers. The audit results of 37 raw material suppliers and 11 subcontractors in 2019 fulfilled Winbond's requirements.

● The Result of the Audit Assessments for Suppliers/ Subcontractors in the Economic, Environmental and Social Aspects

Aspects and standards	Procurement category	Wafer Level Chip Scale Package	Probe factory
Economic aspect	SO 9001 quality management system	100 %	100 %
	IATF 16949	100 %	100 %
Environmental aspect	ISO 14001 Environmental management system	100 %	100 %
	REACH	100 %	100 %
Social aspect	RoHS	100 %	100 %
	IECQ QC 080000	100 %	100 %
	ISO 45001	100 %	100 %
	Responsible Business Alliance (RBA)	100 %	100 %

● The Ratio/Number of New Suppliers (Raw Material Suppliers) through the Screening with Environmental Standards

	Number of	Percentage
2017	6	100 %
2018	2	100 %
2019	11	100 %
Total	19	100 %

● Conflict Minerals

In accordance with the Conflict Minerals Regulations of the Responsible Business Alliance Code of Conduct (RBA CoC), Winbond not to purchase and refuse to use conflict minerals that may directly or indirectly finance or benefit armed groups through mining or mineral trading in the Democratic Republic of Congo (DRC) or an adjoining country, including gold (Au), tantalum (Ta), tungsten (W) and tin (Sn). All of our main suppliers have signed the Winbond SUPPLIER CODE OF CONDUCT COMMITMENT LETTER. We had made formal statement to our suppliers regarding Winbond's policy of not using conflict minerals through the public website or dissemination letters.

Winbond uses the Conflict Minerals Reporting Template (CMRT) of the Responsible Business Alliance (RBA) Code of Conduct to investigate our suppliers on conflict metals. We request our suppliers to reveal the refinery information of related materials according to Winbond's requirements and we also verify the correctness of suppliers' information. In the future, Winbond will continue to cooperate with suppliers to ensure that all of our suppliers use the Tier1 certified Conflict-Free Smelter announced by the Responsible Business Alliance (RBA) Code of Conduct. Winbond had conducted conflict mineral investigation on 20 vendors (14 raw material suppliers and 6 subcontractors). All suppliers met the relevant regulations and there is no prohibition on Winbond's sale of products.

3.4.3 Plan for Collaborative Growth with Suppliers

Suppliers are deemed as important partners for Winbond and hence one of our social responsibilities is to enhance the sustainable competitiveness and performance of suppliers. Winbond will regularly hold the suppliers conference and help improve suppliers' performance in the economic, social, and environmental aspects based on the inspection standards for sustainability.

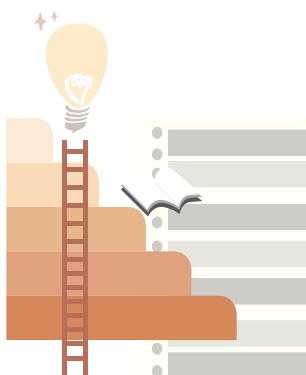
● Suppliers Conference

Winbond convenes a suppliers conference every year to disseminate Winbond's policy for electronics quality and corporate social responsibility. We regularly update and share Winbond's quality requirements and innovative technologies in the industry. We reinforce our cooperation with the outsourced suppliers through communication and interaction between both parties. We also awards suppliers with excellent performance to show our appreciation for the long-term cooperation and support from our suppliers.



• Suppliers/Subcontractors Competency Counseling

Winbond looks forward to growing together with our suppliers and subcontractors in order to continue to improve the manufacturing process and quality. Therefore, we provide guideline to our suppliers and subcontractors for improvement and we also arrange diverse courses to enhance their professional capabilities, including the DOE design of experiments and applications, 5-Why analysis approach, etc. At the same time, we also encourage them to pay attention to the "National Unity Circle Competition", to enhance self-improvement through mutual learning. We assist our local suppliers to enhance various aspects to create a win-win situation and the sustainability and resilience of the supply chain.



• Supplier/Subcontractors Counseling Results

Counseling scope	Problem description	Method of improvement	Improvement results
Improvement in production efficiency	The production efficiency in packaging/testing does not meet expected requirement	<ol style="list-style-type: none"> 1. Adjust the operating process for the production line and standardization 2. Adjust parameters of the testing machine 3. Optimize the unit and organization 	The efficiency of machine has enhanced by 3 times
Improvement of fixture	The operation component adjustment prior to the product testing is very time consuming	Design of special fixture module for component positioning	The production capacity is increased by 5 times

● Winbond's Sustainability Review Standards for Electronics Suppliers/Subcontractors

Winbond practically implements the suppliers audit system to ensure that the relevant mechanisms are properly operated and control the supply chain risks. The audit contents include three major aspects of "quality management", "green inspection" and "social responsibility review". A total of 11 subcontractors and 37 raw material suppliers were audited in 2019.

	Review and inspection items	Grading standard
Quality management	In addition to requiring suppliers to have certification regarding quality and management system, Winbond includes 12 categories in the inspection form, such as: Quality system; contract review; design management; document control; suppliers management; product source traceability; control of manufacturing process; inspection and testing; verification management; control of disqualified products; product transport, packaging, storage and delivery; quality records; and four of them are quality indicators.	<ul style="list-style-type: none"> • Excellent (score $\geq 90\%$) • Good ($90\% > \text{score} \geq 80\%$) • Review again (score $< 80\%$)
Green review and inspection	In order to ensure that our suppliers complying with the relevant specifications stipulated in the "Green Product and Environmental Policy", we regularly conduct the green inspection on our suppliers every year. The grading categories include management responsibility, outsourcing management, management of manufacturing process and customer support, with a total of seven inspection indicators. In addition, it also includes the conflict minerals investigation. We request our suppliers to sign 7 declarations and provide data and information on relevant investigation.	<ul style="list-style-type: none"> • Excellent (score $\geq 90\%$) • Good ($90\% > \text{score} \geq 80\%$) • Review again (score $< 80\%$)
Review of social responsibility	Winbond refers to the "Winbond's Code of Conduct for Suppliers" stipulated according to relevant standards of the Responsible Business Alliance (RBA), to conduct reviews on suppliers in the economic, environmental and social aspects. At the same time, we conduct an in-depth analysis for supplier's implementation level of social responsibility through the RBA Self-Assessment Questionnaire (SAQ) and Validate Audit Process (VAP) for suppliers.	A total of 10 subcontractors had completed the SAQ in 2019, in which 5 subcontractors had completed the VAP.

● Education and Training for Security Guards

Winbond also plan training courses for the security guards of the factory on a yearly basis. We regularly implement the education and training regarding subjects such as human rights. We also conduct RBA audit on the security companies. In 2019, all security companies had passed the RBA audit. The audit includes a total of 10 human rights/health and safety items. This will not only maintain Winbond's workplace safety but also enhance the security companies' understanding and performance towards social responsibility.

Factory	Number of security guards	Hours of the training course (hours)	Course title
Factory in the Central Taiwan Science Park	15	7.5	Dissminaiton and traning regarding workplace bullying, abuse, and harassment, etc.
Jhubei Office	12	6	

IV. Environmental Sustainability



Summary of chapter and section

To reduce the impact on the surrounding environment during the business operations, Winbond has invested considerable resources in all environmental indicators such as energy saving and carbon reduction, utilization efficiency of water resource, pollution prevention, hazardous substance management, etc., to pursue our vision of sustainable development and make contribution to our planet.

4.1 Green Manufacturing

The greenhouse effect leads to climate changes and the impact on the environment and our business operations. In the regulatory risk aspect, many governments around the world discuss the possibility of imposition of carbon or energy taxes. The global price of raw materials and energy required for production are also increasing year by year and these will increase enterprise's production costs. For the substantial environment, the climate change has resulted in more frequent extreme weather conditions such as windstorms, floods, and droughts. In recent years, the increasing difference in amount of rainfall between the rainy seasons and dry seasons will certainly impact the allocation and use of water resources. Furthermore, more and more consumers are beginning to concern about climate change issues and they start to demand enterprises to disclose environment related information.

In response to the impact of climate changes on our business operations, Winbond has established the "ESH and Risk Management Committee". Our president serves as the chairperson and the representatives of officers from all departments serve as members of the committee. The committee regularly convenes meetings every quarter for management, reviews and inspections on indicators and goals, as well as reviews or updates on the risks and opportunities. Winbond has stipulated operational procedures for risk assessment for identification of the impact of risks on business operations (including production and financial impact) and the possibility of risk occurrence, to evaluate the risk level and the corresponding response measures.

Types of risks in climate change	Business or financial impact	Potential opportunities	Countermeasures	Indicators and goals
 Control of greenhouse gas emissions	Increase in operating costs	Increase in availability of capital, the Environmental Protection Administration is creating a carbon trading platform to encourage enterprises making early actions to obtain carbon reduction credits.	We propose reasonable opinions to the government through the industry associations and continue to conduct energy conservation and carbon reduction activities to obtain more carbon reduction credits.	In 2020, the greenhouse gas emissions per unit product is reduced by 8% compared to year 2010 ($\leq 15.1 \text{ kg CO}_2\text{e}/\text{layer}$).
 Levy fuel / energy tax	Increase in operating costs	Enhance the competitiveness of the enterprises	We propose reasonable opinions to the government through the industry associations and participate in climate change seminars with the government, academia and industry. Meanwhile, we also continue to conduct energy conservation activities to reduce the operating impact and enhancing the competitiveness.	The power consumption per unit product in 2020 is not higher than that in 2010 ($\leq 82.8 \text{ million joules}/\text{layer}$)
 Changes of extreme precipitation and drought	Reduction/interruption of production capacity	Enhance the competitiveness of the enterprises	By promoting water recycling technology, water-saving programs and establishing response plans, we will increase our capability to adapt to climate changes and enhance our competitiveness.	As of year 2020, the water consumption per unit product will be maintained at $\leq 150 \text{ liters}/\text{layer}$ As of year 2020, the water recycling rate of the entire plant will be maintained at $\geq 80\%$

Indicators and goals	Goal in 2019	Performance in 2019	Improvement measures
The greenhouse gas emissions per unit product (kgCO ₂ e/layer)	≤ 15.2	15.9	Chapter 4.2.2 Greenhouse Gas Management
The power consumption per unit product (million joules/layer)	≤ 84	86.9	Chapter 4.2.1 Energy Management
The water consumption per unit product (liters/layer)	≤ 150	154	Chapter 4.3.1 Water Management
The water recycling rate of the entire plant (%)	≥ 80	82	

● Pollution Prevention Measures

To reduce the influence and impact on the environment during business operations, Winbond continues to invest resources in pollution prevention and control. In 2019, we had invested NT\$ 354 million in pollution prevention.

Unit: NT\$ thousand

Types of costs	Expenditure lists	2017	2018	2019
New prevention/control facility	Air pollution control facility	31,554	25,437	35,289
	Water pollution prevention facility	65,686	71,729	30,227
Operation and maintenance of prevention and control facility	Air pollution control facility	49,212	92,908	103,287
	Water pollution prevention facility	124,692	165,734	123,331
Waste disposal	General business waste	14,644	24,508	29,466
	Hazardous business waste	29,193	33,030	32,552
Total		314,981	413,346	354,152
Revenue (individual)		38,102,813	40,733,527	37,884,848
Ratio in revenue (Total expenses/revenue)		0.83%	1.01%	0.93%

I. Sustainable business operations

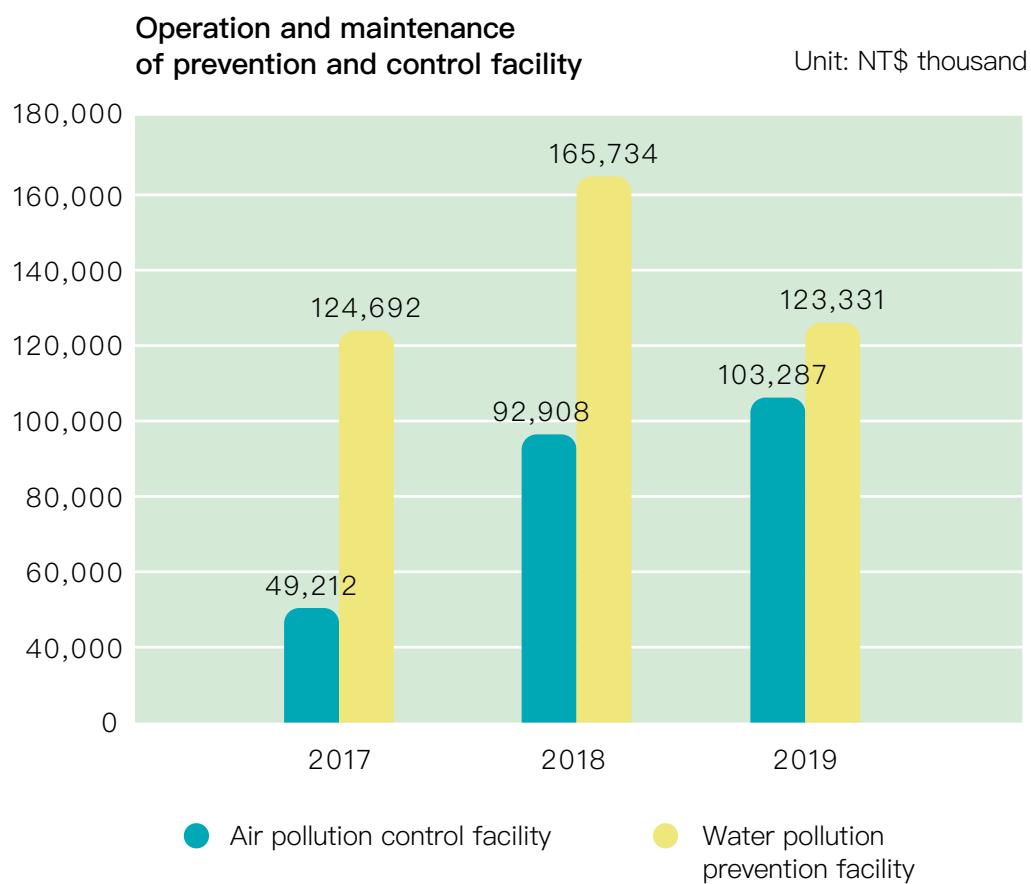
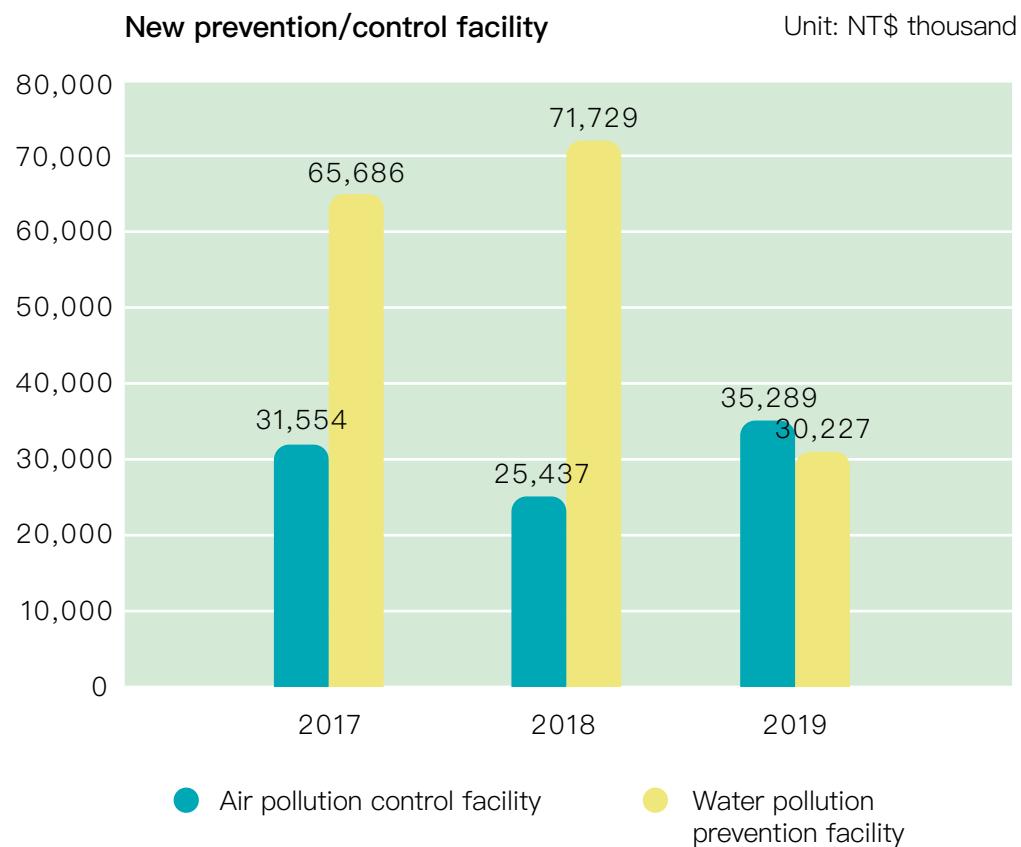
II. Ethical Corporate Management

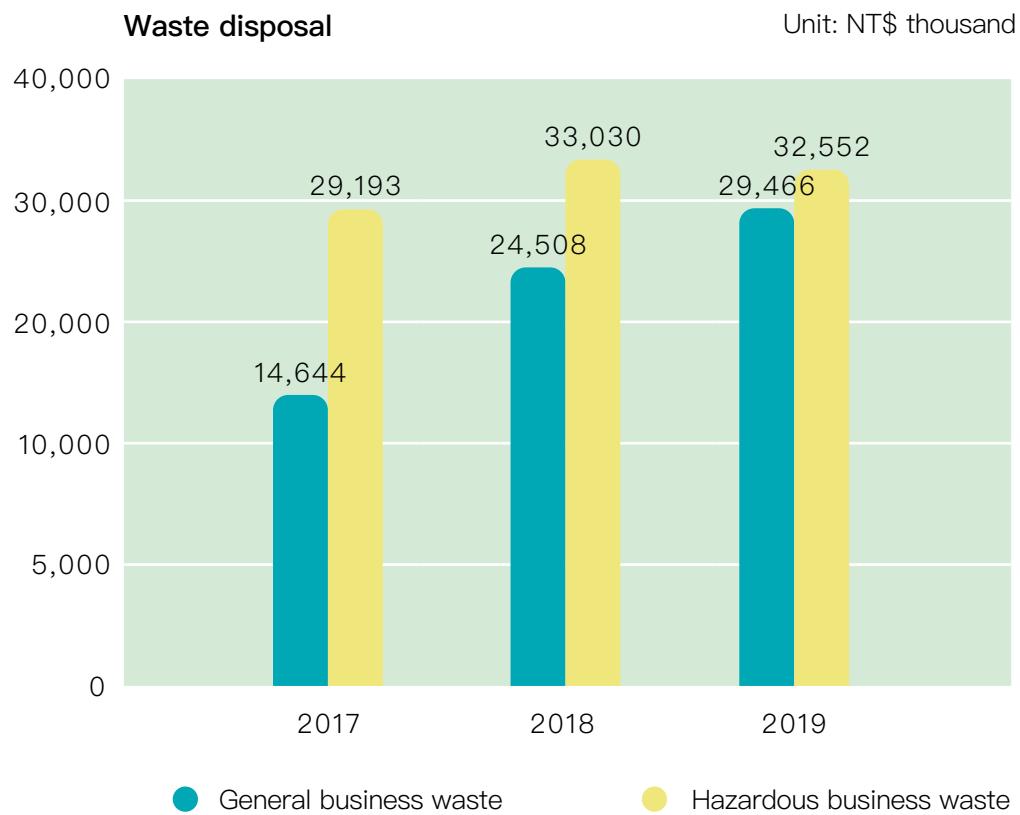
III. Excellent Quality

IV. Environmental Sustainability

V. L.O.H.A.S Workplace

VI. Giving back to the society





Winbond actively recycles waste and promotes energy conservation, carbon reduction, and water conservation. In addition to generating operating revenue and reducing operating costs, it can also make contribution to our planet.

Unit: NT\$ thousand

Category		2017	2018	2019
Revenue	Waste recycling	5,100	4,700	5,600
	Energy-saving measures	131,230	157,460	163,030
	Water-saving measures	4,845	7,564	8,617
Total economic value creation		141,175	169,724	177,247

Winbond conducts periodic reviews on the reduction performance of the Company and continuously adjusts the usage parameters of raw materials to achieve the optimal goal and minimum demand. This not only reduces the amount of pollutants and waste, but also reduces our production costs and accomplishes a win-win situation. In the past three years, despite the increasing demands for various raw materials/energy resources due to the factory expansion and continuous increase in machine equipment, we continue to put much effort in reduction performance.

Raw materials/energy resources	Usage in 2017	Usage in 2018	Usage in 2019
12" wafer (tons)	68	76	74
Power consumption (GWh)	452	498	528
Water consumption (thousand cubic meters)	2,830	3,130	3,370
Gas consumption in manufacturing process (tons)	251	278	293
Chemical usage in manufacturing process (tons)	8,735	10,110	10,541
Gas consumption in the factory (million cubic meters)	159	188	207
Chemical usage in the factory (tons)	13,463	15,675	17,085
Natural gas consumption (thousand cubic meters)	4,920	5,470	5,770
Diesel consumption (cubic meters)	80	138	52

Remarks: Winbond cannot use renewable raw materials due to the characteristics of our products.

4.2 Energy and Greenhouse Gas Management

Winbond's main greenhouse gas emissions come from the FCs used in manufacturing process and externally purchased electricity, which account for more than 85% of the entire greenhouse gas emissions. Therefore, the reduction of direct emissions from FCs (including the increased process utilization rate and the installation of combustion exhaust gas treatment equipment) as well as the reduction of indirect emissions from electricity consumption will be the primary goal of Winbond.

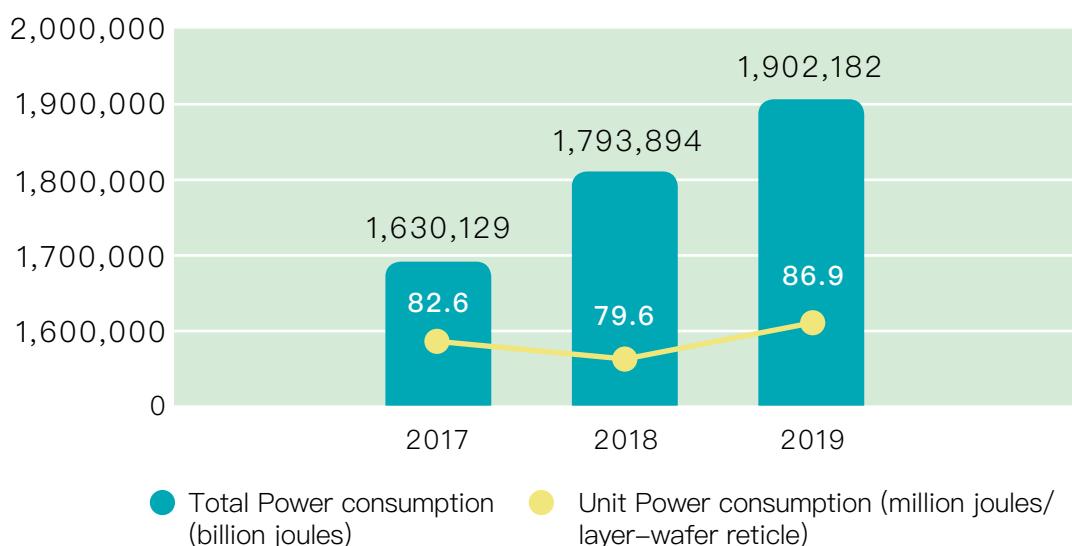
4.2.1 Energy Management

Winbond's total energy consumption is approximately 2,119,538 billion joules in 2019. In the future, we will continue to promote our energy-saving plans to contribute the environmental load reduction. As Winbond continues to purchase equipment and machines and our production capacity is reduced due to global economic factors, hence the unit energy has increased compared to the previous year, so we did not achieve the preset goal of 84 million joule/layer for year 2019.

Energy intensity/year	2017	2018	2019
Total energy consumption (billion joules)	1,836,336	2,024,278	2,119,538
Unit energy consumption (million joules/ layer-wafer reticle)	93.1	89.8	96.8
Total Power consumption (billion joules)	1,630,129	1,793,894	1,902,182
Unit Power consumption (million joules/ layer-wafer reticle)	82.6	79.6	86.9
Total natural gas consumption (billion joules)	203,393	225,545	215,526
Unit natural gas consumption (million joules/ layer-wafer reticle)	10.3	10.0	9.8
Total diesel consumption (billion joules)	2,814	4,839	1,829
Unit diesel consumption (million joules/ layer-wafer reticle)	0.1	0.2	0.1

Note:

1. Winbond does not use renewable energy and does not have the plan to sell energy.
2. Energy consumption has been converted into joules. Electricity 1 degree (kW – hours) = 3,600 kilowatt, 1 cubic meter of natural gas = 8,914 kcal, 1 liter of diesel = 8,400 kcal, 1 cal = 4.184 joules.
3. The standards, methodologies, assumptions and/or calculation tools: the energy consumption comes from the measurement of the bills or the monthly gas consumption statement and pickup orders/part number inventory change record check list, and there were no estimated values.
4. The source of conversion coefficients: except for the calculation of calorific value provided by the manufacturer that was calculated by the heat value, the rest of calculations were based on the GHG Coefficient Management Table (version 6.0.4) published by the Environmental Protection Administration.
5. Except our office, only one factory in Taiwan, has been conducted green-house gas inventory.



Winbond implemented seven new power-saving measures in 2019 and the saved amount of electricity increased by approximately 6,688 billion joules compared to the previous year. From 2015 to 2019, the cumulatively saved electricity attains 977,094 billion joules, which is equivalent to the annual electricity consumption of 77,547 households. (Note: The calculation is based on the Taiwan Power Company, the average annual electricity consumption per households is 3,504 degree, about 12.6 billion joules in 2018).

Statistics on electricity conservation/Year	2015	2016	2017	2018	2019
Cumulative electricity saving measures taken (cases)	156	165	180	201	208
Annual electricity saved (billion joules)	149,110	169,841	196,343	227,556	234,244

● New Electricity Saving Measures taken in 2019 are Listed as Follows



Note: The electricity saving measures and the estimated amount of electricity saving are based on the requirements of the "Declaration form for Energy Conservation Verification System of Energy Users"

4.2.2 Greenhouse Gas Management

Winbond has participated in the Perfluorocarbons (hereinafter referred to as PFCs) Greenhouse Gas Emissions Reduction Project of Taiwan and the World Semiconductor Association since 2000. Through the adjustments in manufacturing process, use of alternative gases, and deployment of fluorocarbons (hereinafter referred to as FCs) reduction equipment, solar photovoltaic equipment, and the operations stated in 2019 to reduce greenhouse gas emissions, reduce the impact of risks, enhance our capabilities to respond to climate change, enhance our competitiveness in the industry, and create new opportunities. Therefore, Winbond was awarded the "Voluntary Greenhouse Gas Emission Reduction Excellent Manufacturer in the Industry" by the Industrial Development Bureau, Ministry of Economic Affairs. For the aspect of global supply chain, we were invited to fill out the CDP questionnaire survey and we expect that the influence on the value chain will be able to urge enterprises to value the importance of climate change, identify related risks and opportunities, consider the climate change issues while making business decisions, and stipulate energy conservation and carbon reduction goals, so to work together to fight against global warming.

Winbond conducts greenhouse gas inventory yearly and reports the results to the National Greenhouse Gas Registry Taiwan of the Environmental Protection Administration. Through the inventory's results, we can understand the current status of ours greenhouse gas emissions and related activities as well as plan the reduction goals and priorities, to verify the reduction results. Greenhouse gas emissions mainly include three parts. Scope 1 is direct greenhouse gas emissions, including greenhouse gases used in manufacturing process (hydrofluorocarbons, perfluorocarbons, perfluorinated compounds, nitrogen trifluoride, nitrous oxide, methane, and carbon dioxide, etc.), greenhouse gases produced by fuel (such as natural gas, gasoline and diesel), and fugitive emissions such as treated organic waste gas, septic tanks, high and medium-voltage panel, firefighting equipment, etc.; Scope 2 is the indirect greenhouses gas emissions from the externally purchased electricity; Scope 3 is the indirect greenhouses gas emissions generated from employee's commuting/business trips, transportation of products and raw materials, production of raw materials by suppliers and waste recycling and treatment, etc.

Unit: tons of CO₂e

Greenhouse gas inventory	2017	2018	2019 (Estimated)
Scope 1	62,318	64,510	65,749
Scope 2	250,859	265,596	281,629
Total emissions = Scope 1 + Scope 2	313,177	330,106	347,378
Greenhouse gas emission intensity (kg CO ₂ e / layer-wafer reticle)	15.9	14.7	15.9

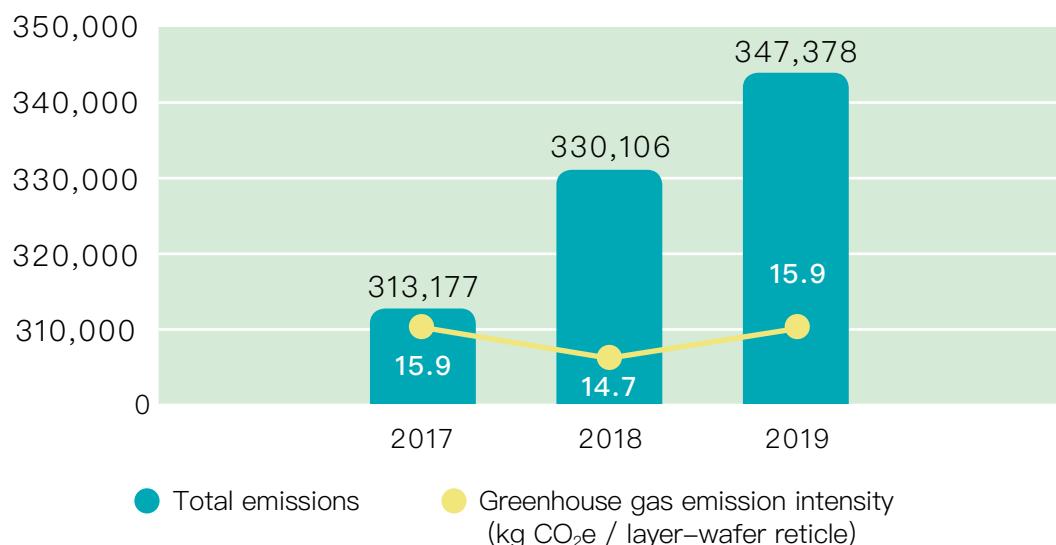
Note:

- In response to EPA's announcement of the Greenhouse Gas Reduction and Management Act in 2015, Winbond's base year of greenhouse gas inventory is tentatively set to year 2015, with emissions of 251,492 metric tons of CO₂e.
- The source of Global Warming Potential (GWP) used in this table is from the version of "IPCC Fourth Assessment Report (2007)".
- The types of greenhouse gases include N₂O, CH₄, CO₂, HFCs, PFCs, SF₆, NF₃, etc.
- The method of collecting the GHG emissions is operational control.

5. The standards, methodologies, assumptions and/or calculation tools: the energy consumption comes from the measurement of the bills or the monthly gas consumption statement and pickup orders & AS400/part number inventory change record check list, and there were no estimated values. The source of coefficients used is mainly based on the coefficients recommended in EPA's latest version of GHG emission coefficients, and the uncertainty data for emission coefficients were used as a reference. For the uncertainty assessment of activity data, we adopt the technical specifications of verification and inspection of measuring instrument as the basis of the evaluation.

6. The value 2019 is the estimated value, as the power coefficient in 2019 has not been announced.

7. Except our office, only one factory in Taiwan, has been conducted greenhouse gas inventory.



The energy-saving and carbon reduction measures in 2019 contribute to a total reduction amount of emissions equivalent to 236,264 tons of carbon dioxide, which is equivalent to the carbon fixation of 612 Daan Forest Parks (note: Forestry Bureau, Council of Agriculture, Executive Yuan and Lands Bureau of Taipei City Government published data to calculate on the basis that the Da An Forest Park absorbs 386 tons of CO₂ annually(25.93 hectares, coefficient of carbon fixation 14.9tonCO₂e/hectares/year)). For future research and development on more advanced technologies and expansion of production capacity, Winbond will continue to promote various carbon-reduction plans and enhance energy efficiency.

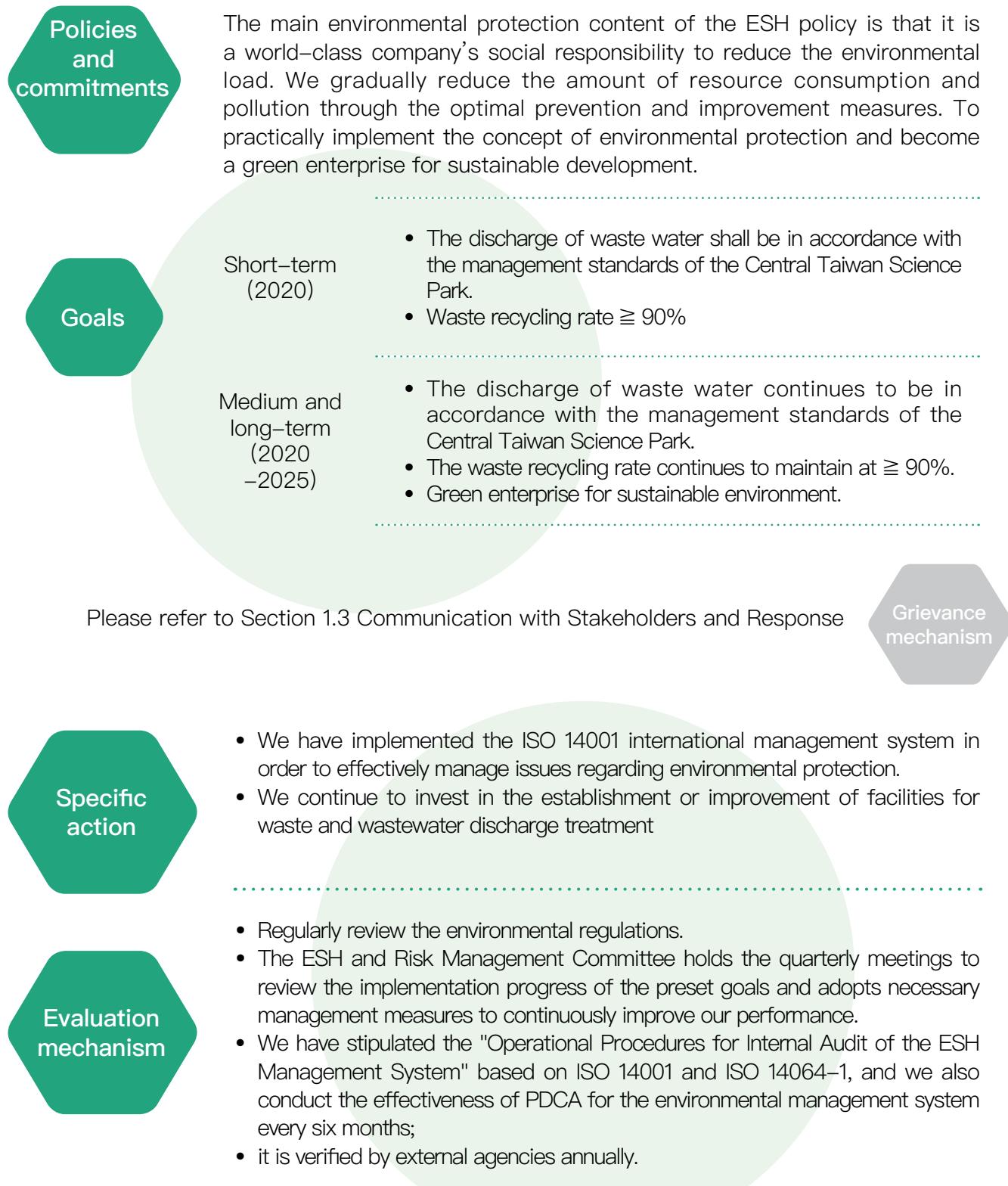
Winbond encourages the employees to take the shuttle bus to and from the Jhubei office and factory area in Central Taiwan Science Park. The bus departs 9 times a day on weekdays from the Jhubei office and factory area in Central Taiwan Science Park, respectively. We encourage our employees to take the shuttle bus as much as possible, to reduce driving and air pollution. In addition, transportation for engineering assistants is also available at the factory area in Central Taiwan Science Park (the routes include downtown Taichung, with south and north lines) for the engineering assistants to bring them to and from work.

Greenhouse gas reduction/year	2017	2018	2019 (Estimated)
Greenhouse gas direct reduction amount (tons of CO ₂ e) (Scope 1)	164,884	190,574	201,583
Greenhouse gas indirect reduction amount (tons of CO ₂ e) (Scope 2)	30,215	33,691	34,681
Total greenhouse gas reduction amount (tons of CO ₂ e)	195,099	224,265	236,264

Note: The value 2019 is the estimated value, as the power coefficient in 2019 has not been announced and the 2018 value is revised according to the announced power coefficient.

4.3 Water and Waste Management

● Material Topic: Wastewater and waste



I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V. L.O.H.A.S Workplace

VI. Giving back to the society

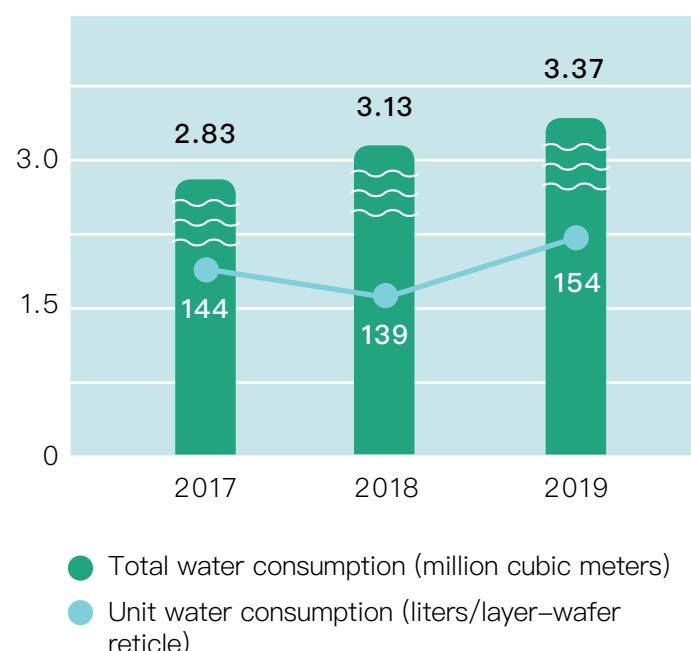
4.3.1 Water Management

Winbond's main source of water is tap water from Taiwan Water Corporation, which is mainly supplied by LiyuTan Reservoir and ShiGang Dam, with a small portion coming from rainwater and air conditioning condensate water. The main source of water is tap water, and the water usage plans must be evaluated and approved by the Central Taiwan Science Park. Therefore, Winbond does not have a significant impact on water resources due to water withdrawal. The total water consumption at Winbond in 2019 was approximately 3.37 million cubic meters. Water consumption per unit of product – the average water consumption for each reticle layer of 12-inch wafer is 154 liters. As we continue to purchase equipment and machines and our production capacity is reduced due to global economic factors, hence we did not achieve the preset goal of ≤ 150 liters/layer for year 2019. (Note: 1 cubic meter = 1,000 liters).

Winbond continuously increases the reuse rate of recycled water. In 2019, the water recycling rate of the entire plant is about 82% and the recycling rate for water used in the manufacturing process is about 91% (It is in accordance with the commitment for the environmental assessment of the science park – the water recycling rate of the entire plant shall be over 77% and the recycling rate for water used in the manufacturing process shall be over 85%).

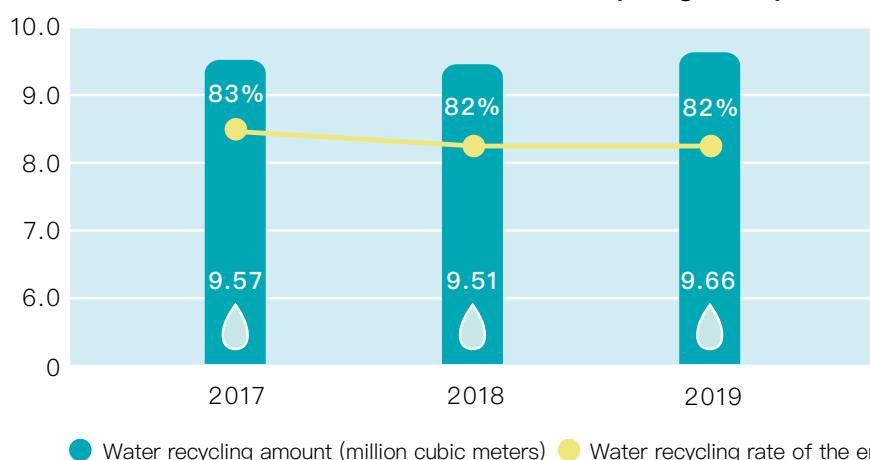
Winbond implemented three new water-conservation measures in 2019, and the water-conservation amount was increased by about 22,000 cubic meters. From 2015 to 2019, the cumulative water-conservation amounted to 2.28 million cubic meters, which is equivalent to 45% of the valid capacity of Baoshan Reservoir (Note: The calculation is based on the measurement provided by the Water Resources Agency, Ministry of Economic Affairs – the valid capacity of Baoshan Reservoir was 5.04 million cubic meters in 2018).

Water consumption/year



- Total water consumption (million cubic meters)
- Unit water consumption (liters/layer-wafer reticle)

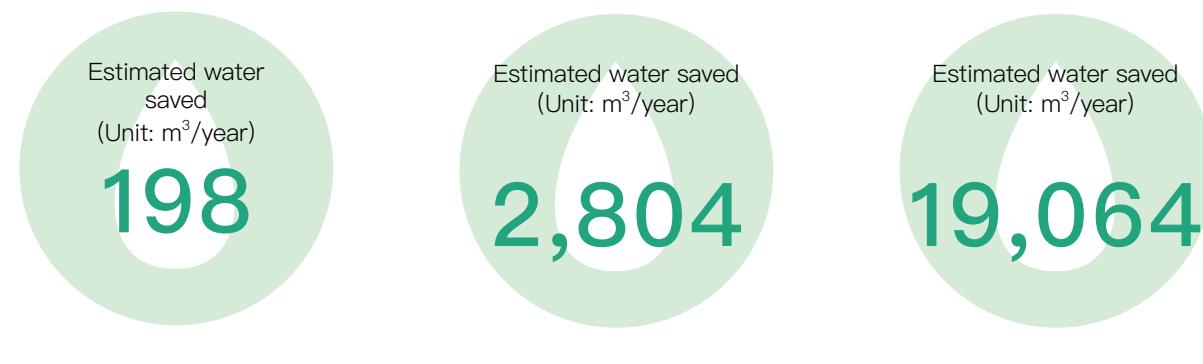
Water recycling rate/year



Note: The water recycling rate of the entire plant = $(\text{recycled condensate water} + \text{recycled manufacturing process water} + \text{secondary utilization of recycled wastewater}) / (\text{tap water} + \text{recycled condensate water} + \text{recycled manufacturing process water} + \text{secondary utilization of recycled wastewater} - \text{amount of evaporated water})$.

- Water recycling amount (million cubic meters)
- Water recycling rate of the entire plant (%)

Water conservation measures in 2019



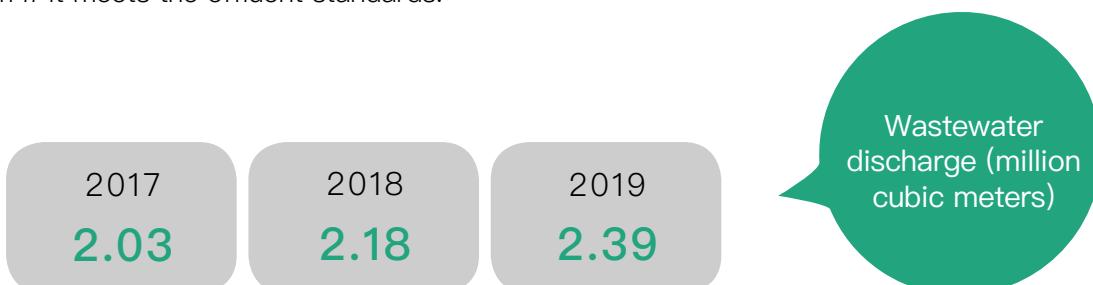
Improvement of the end pressure analysis for firefighting water

Improvement of MMF backwash cycle (extended 10%)

Further improvement of MMF water and energy conservation

● Wastewater Management

To ensure that the discharged wastewater will be in accordance with the discharge standards of laws and regulations, a wastewater treatment area is established in the factory in 2019 and it is responsible for the treatment of acid and alkaline wastewater generated in the wafer manufacturing process, fluoride containing wastewater, wafer planarization wastewater, ammonia nitrogen wastewater, tetramethylammonium hydroxide wastewater, copper wastewater, hydrogen peroxide-containing wastewater and processing domestic wastewater generated by employees that were treated by the membrane bioreactor system before discharging to the Sewage Treatment Plant in the Central Taiwan Science Park. After the sewage treatment, the water will be discharged to Farzhi Stream if it meets the effluent standards.



For the wastewater treatment facilities, Winbond had designed to have up to 20 types of pipelines at the early design stage, each collecting an individual type of waste liquid generated from operations. Based on characteristics of the waste liquids, eleven categories of waste treatment facilities were built in accordance with water pollution control related laws and regulations as well as the Soil and Groundwater Pollution Remediation Act; and we also applied for the discharge permits for the construction. Inspections by a laboratory accredited by the Environmental Inspection Institute are conducted twice every year to determine whether the discharge water meets the requirements of the science park. In addition, to reduce environmental load and the use of chemicals, we also plan to recycle and process the waste waters from the washing tower, cooling towers, cooling waste water used in manufacturing process, and recycled soft water manufacturing process. After the wastewater treatment, the reclaimed water is used as a supply of secondary water usage in the plant; we continuously promote the advancement of water pollution control facilities to achieve the reduction of pollutant biochemical oxygen demand (BOD), chemical oxygen demand (COD), suspended solids (SS), and sludge reduction. The following table shows the effluent standard at the Central Taiwan Science Park and the testing data, all of which comply with the regulations of the Central Taiwan Science Park.

	Chemical oxygen demand (COD)	Suspended solids (SS)	Biochemical oxygen demand (BOD)
Management standard of the Central Taiwan Science Park	500mg/L	300mg/L	300mg/L
The monitoring value on May 28th, 2019	130 mg/L	4.3 mg/L	12.7 mg/L
The monitoring value on November 25th, 2019	35.7 mg/L	4.2 mg/L	19.9 mg/L

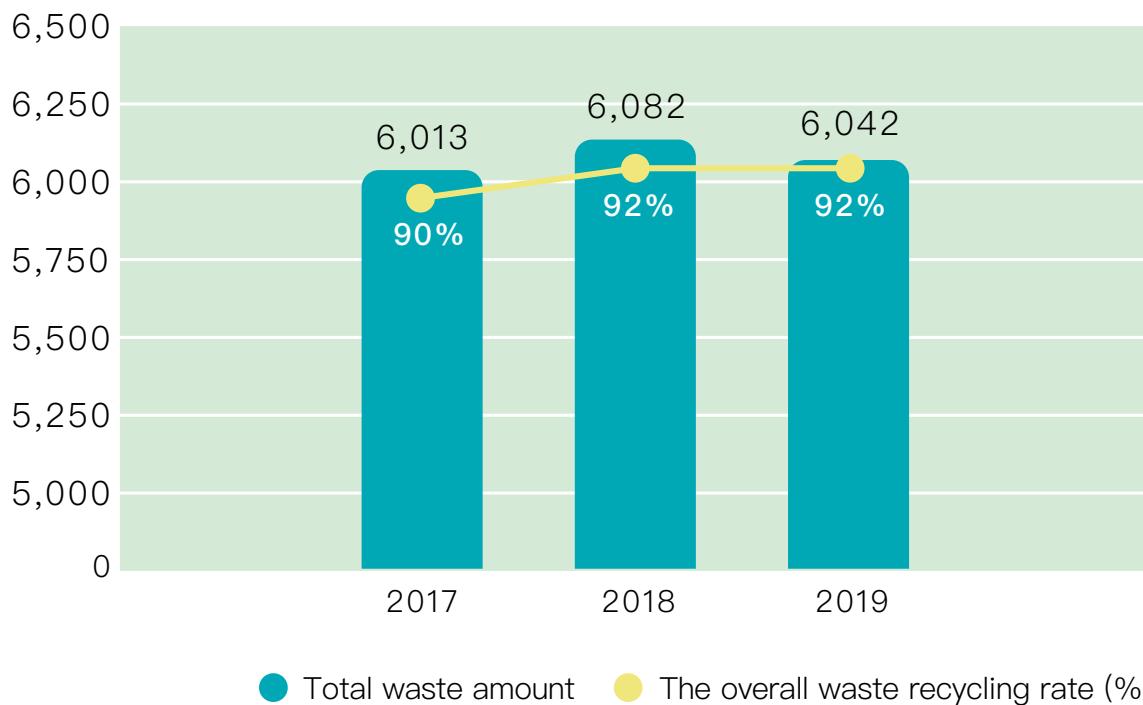
4.3.2 Waste Management

In 2019, the waste generated at Winbond was about 6,042 tons. When measured with the per unit of product indicator, the production for each reticle layer of 12-inch wafer produces approximately 0.276 tons of waste; 99.94% of hazardous industrial waste were commissioned to qualified domestic waste treatment agencies for treatment; as there is no qualified domestic treatment agency for the 1.4 tons of cadmium battery waste (accounting for 0.06% of hazardous business waste), we commission a qualified disposal agency to ship to qualified treatment agencies in Korea for treatment. The waste recycling amount is 5,575 tons with a recycling rate of 92%, which meets our preset goal of annual recycling rate of over 90%.

Category	2017	2018	2019	
General waste	Output amount (tons/year)	3,581	3,842	3,808
	Recycled amount (tons)	3,427	3,770	3,736
	Incineration amount (tons)	154	70	64
	Chemical treatment amount (tons)	0	2	8
Hazardous waste	Output amount (tons/year)	2,432	2,240	2,234
	Recycled amount (tons)	2,006	1,808	1,839
	Incineration amount (tons)	416	425	391
	Curing amount (tons)	9	7	4
The overall waste recycling rate (%)		90	92	92

Note:

1. 99.94% of hazardous industrial waste were commissioned to qualified domestic waste treatment agencies for treatment; as there is no qualified domestic treatment agency for the 1.4 tons of cadmium battery waste (accounting for 0.06% of hazardous business waste), we commission a qualified disposal agency to ship to qualified treatment agencies in Korea for treatment.
2. The amount of waste output is prescribed declaration amount by the Waste Disposal Act.



4.4 Hazardous Substance Management

To ensure our produced Wafer, Chip, Package IC and other related products meeting the international environmental laws and customers' demands of green products, and prevent environmental pollution and harm to human health. According to the international regulations and standards such as the "Hazardous Substance Process Management Standards" (QC 080000), "EU's Restriction of Hazardous Substances (RoHS) Directive", "Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH)", etc., Winbond has stipulated the internal "Hazardous Substances Control Regulations" and created a cross-departmental hazardous substances management group, to control the related processes from design, procurement, production to shipping. Winbond also requests all of our suppliers and outsourced vendors to incorporate green product requirements into management and ultimately provide Hazardous Substance Free (HSF) products that meet customers' requirements. Winbond is engaged in research, development, procurement, production, operations and services in accordance with the following principles to reduce the impacts of the Company's business operations on the natural environment and humans:

- 1 Reduce the resources and energy consumption of products and services.
- 2 Reduce emissions of pollutants, toxic substances and wastes; and properly dispose the waste.
- 3 Improve the recyclability and reusability of raw materials or products.
- 4 Optimize the sustainable use of renewable resources.
- 5 Extend the durability of products.
- 6 Enhance the effectiveness of products and services.

The HSF policy is that the Company has devoted much effort in design, procurement, manufacturing, and sales of products free of harmful substances to ensure we are in accordance with international regulations and meet customer needs. Moreover, we are dedicated to protecting the environment to fulfill the responsibilities of social citizens. The HSPM hazardous substance management representatives convene management review meetings every year to review and discussion on relevant audit results and management performance in policies, objectives and regulations. We continuously improve the effectiveness of the hazardous substance management system.

4.5 Air Pollution Control

Winbond's air pollution prevention strategy is to first reduce emissions from the source, reduce air pollutants to a reasonable level through improvement in manufacturing process, and then treat the pollutants with high performance control equipment, keeping pollutant contents that permeate into the atmosphere under the standards stipulated by government regulations. The inspection results over the years show that Winbond's air pollutant emissions are lower than the emission standards stipulated by the Environmental Protection Administration.

Winbond categorizes the waste gases into acidic exhaust, alkaline exhaust, volatile organic compounds, and general exhaust based on the characteristics of waste gases. General exhaust is generated from the heat exhaust of machine cooling, which does not cause air pollution. We adopt the effective air pollution control equipment based on the characteristics of the pollutants.

For specific toxic or flammable waste gases, FCs, or perfluorinated waste gases generated in manufacturing process, Winbond has installed the local scrubbers at the equipment for the treatment process of adsorption and combustion oxidation. The exhaust containing inorganic acid and alkali will be sent to the central exhaust gas washing tower for washing and neutralization; the exhaust containing volatile organic compounds will be sent to a rotary zeolite wheel for absorption, and then it will be sent to a direct-thermal oxidizer for combustion treatment.

Winbond's air pollution control equipment is designed to operate in the N+1 mode, which immediately switches to the backup equipment in emergency or during maintenance. In addition, an emergency power backup system and an advanced real-time monitoring system are equipped to monitor the operating parameters around the clock. For any deviation passes the preset value, an alarm will be immediately going off, alerting the personnel to deal with the situation immediately. The air pollutants are effectively monitored with 24 hours a day, 365 days a year, which complies Taiwan's "Air Pollution Control and Emissions Standards for Semiconductor Industry" and " Air Pollutant Emissions Standards for Stationary Pollution Source".

Winbond's volatile organic compounds emissions treatment system is equipped with a rotary zeolite wheel and it uses clean natural gas as fuel to reduce combustion derivative pollution. In 2019, the average removal rate of volatile organic compounds emissions at Winbond was 99%, better than the rate set by the Environmental Protection Administration.

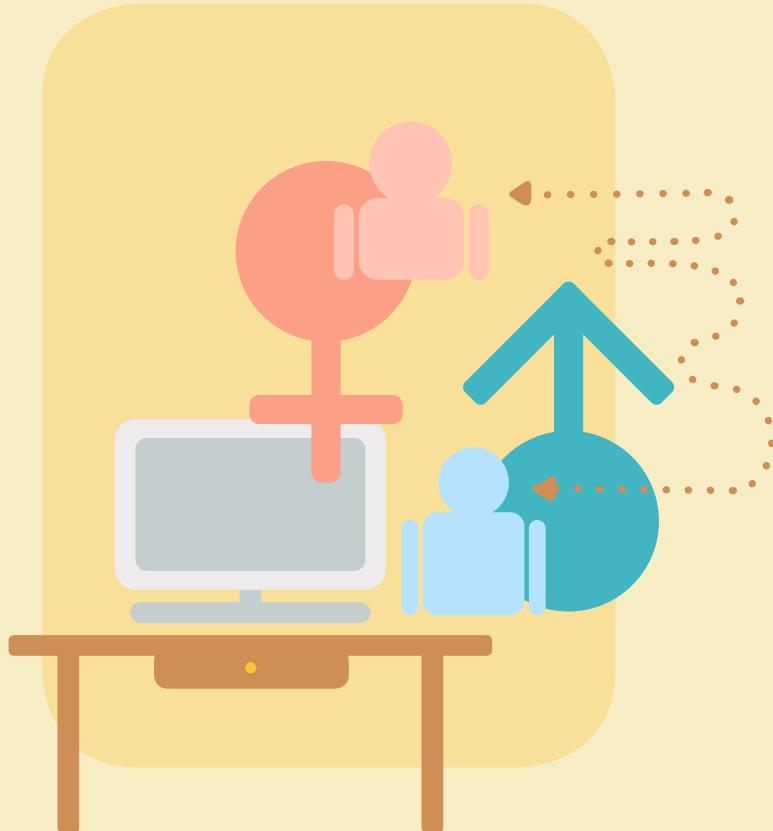
Item	2017	2018	2019
NO _x emissions (metric tons)	9.47	11.82	10.77
SO _x emissions (metric tons)	0.31	0.29	0.17
Volatile organic compounds emissions (metric tons)	2.76	3.73	3.61
Removal rate of volatile organic compounds emissions (%)	97%	97%	99%

V.LOHAS Workplace



Summary of chapter and section

Winbond has stayed true to the spirit of "human-oriented" and we value the importance of talent cultivation and development. For cultivation of talents, we provide employees with a variety of up-to-date digital and physical training resources to facilitate their self-learning, as well as career development and self-realization. At the same time, we also provide competitive remuneration and benefit package, and we communicate with our employees through diverse and transparent communication channels, respecting and caring for employees, so that their opinions can be heard. In addition to creating a friendly workplace, Winbond continues to reinforce its core values of: "Ethical Corporate Management", "Accountable Team", "Enthusiastic Learning", "Active Innovation" and "Sustainable Contribution", to empower all employees to grow together with Winbond.



● Material Topic: Training and education; occupational health and safety

Policies and commitments

Talents are deemed as the most important assets of Winbond. We believe that learning and development of talents is the foundation of the Company's sustainable operations and hence we provide a variety of diverse training channels and resources to our employees. We also promote a passionate learning culture and encourage employees to participate in Winbond's comprehensive education and training system, to help them enhance productivity, fully realize their potential, and promote the win-win strategy for corporate development and individual learning.

Winbond develops an annual training program and organizes corresponding courses through analysis of diversified needs and integration of organizational strategy, the Company's vision, business philosophy and corporate culture. To track and ensure the effectiveness of training, we will verify whether the design, implementation and effectiveness of the training course fulfill the course objectives, based on the attributes of the course, through the four-level evaluation model for education and training proposed by the American scholar Donald L. Kirkpatrick.

Goals

Short-term
(2020)

- We provide diverse learning resources and channels to help employees at all levels to enhance their knowledge required for work, to improve individual work efficiency and the entire productivity of the Company. At the same time, we create a friendly and convenient learning environment to encourage and enhance employees' self-learning ability.
- We continue to promote corporate culture and comprehensively enhance employees' understanding and recognition of corporate culture.
- The important statistical indicators of disabling injury FR is 0 and SR is 0.
- The cumulative number of participants in related sports \geq 60,000 participants/year.
- No violation of occupational safety and health regulations.

Medium and
long-term
(2020
–2025)

- We continue to strengthen the leadership seed team, assist in the development of high-level leadership team as well as the improvement of the ability for new and basic-level supervisors, to comprehensively enhance the supervisory ability of supervisors at all levels, and establish and develop an internal talent pool.
- We foresee and discover innovative technology and trends in the industry, to assist the Company in promoting changes and provide relevant training resources to prepare future talents for the Company in advance.
- The important statistical indicators of disabling injury FR is 0 and SR is 0.
- The cumulative number of participants in related sports continues to maintain at \geq 60,000 participants/year.
- There was zero violations and it is better than the regulatory requirements.

Please refer to Section 1.3 Communication with Stakeholders and Response

Evaluation mechanism

Grievance mechanism

- Use Kirkpatrick evaluation model to conduct assessment on the effectiveness of the training:
 1. Level 1 Assessment on Reaction: we can understand employees' satisfaction level in various aspects such as the course content, teaching approach, teaching skills, etc. through the satisfaction questionnaire survey.
 2. Level 2 Assessment on Learning: we can understand employees' learning results through the after-course tests and lecturers' observations in the classroom.
 3. Level 3~4 Assessment on Behavior & Result: we can observe employees' behavior after the course and whether they apply what they have learned to their work through the pre-assessment or post-assessment of the course, after-class assignments, practical publication of their assignments, and interviews, etc., to facilitate the enhancement of work efficiency and productivity.

- On the basis of ISO 45001, we had stipulated the "Operational Procedures for Internal Audit of the ESH Management System", and we conduct assessment on the effectiveness of PDCA for the occupational safety and health management system every six months; and external certification agencies are commissioned every year.

Specific action

- Provide training for new employees: we provide comprehensive training for new employees to help them quickly blend into the organization, understand the Company's system and culture, learn the knowledge and skills required for work, establish social networks, and enhance their organizational commitment and loyalty.
- Establish and promote the learning platform: in accordance with the changes in the trends of training and learning habits, we implemented a cloud training and learning platform (SAP SuccessFactors LMS) in 2019. We organize more than 1,000 digital courses with mobile learning, so that our employees can use different devices (mobile phone, panel computer, PC) to learn at anytime and anywhere. We also categorize the learning resources into different learning theme zones based on the course attributes, such as new employees zone/supervisors zone/cultural zone/productivity improvement zone, etc., to systematically categorize the learning resources, provide employees with friendly and convenient learning environment, encourage employees to learn proactively, and enhance the organizational learning atmosphere. Some courses are instructed by internal employees and Winbond conducts knowledge sharing and passing on through the platform to help employees complete their job assignments.
- Continue to strengthen the leadership seed team:
 1. We arrange training of new supervisors for new basic-level supervisors, to help new supervisors strengthen the required management knowledge and capability such as leadership, communication, interview skills, setting of performance goals, and counseling, with the digital and physical learning resources.
 2. We regularly conduct the management knowhow sharing seminar for internal supervisors, to facilitate knowledge sharing and passing on within the Company.
 3. We regularly hold seminars for high-level executives and invite experts or scholars to share their practical experience regarding topics such as management leadership/political and economic trends/innovative technology, etc., to cultivate the executives' innovative thinking and management horizon.
 4. Conduct management capability assessment on high-level executives; assist the executives to understand themselves and make their "personal development plan" based on the assessment results.
- Plan the trending courses: plan courses based on topics regarding artificial intelligence, information science, and digital transformation, to assist employees to learn and absorb new knowledge, help employees to have basic concept and technical capability of AI and digital transformation, and help them to apply what they have learned to their work.
 1. Plan and organize Winbond's Institute of Artificial Intelligence. We cooperate with National Tsing Hua University to organize a series of cross-disciplinary basic courses in artificial intelligence, to promote the understanding, technology and application regarding artificial intelligence, and prepare to respond to the possible changes in the industry or work pattern in the future.
 2. Invited a professor from National Taiwan University for a series of machine learning lectures, to reinforce employees' concept of machine learning and inspire employees to apply the concept to their work.
 3. In response to the trend of enterprises' digital transformation, we have cooperated with SAP to organize a series of "In the presence of an intelligent era" seminars to lead employees to prepare for the digital transformation and move towards an intelligent enterprise.
- Winbond has no violation against labor regulations and there are no major labor-employer issues in 2019.
- We have implemented the ISO 45001 international management system in order to effectively manage the occupational safety and health issues.
- Reinforce the occupational safety and health management in the factory:
 1. Preventive improvement for aging components.
 2. Supervise and inspect the operational protection and operational process.
 3. The monitoring system is able to detect problems early and make improvement for the abnormality.

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V. LOHAS Workplace

VI. Giving back to the society

Winbond values the diversified workplace culture. We embody the spirit through the distribution of gender by position, level and various training systems. Windbond emphasizes equal payment, welfare and human right. In addition, we pay attention to workplace safety and employees' health. Through multiple projects, Windbond upgrades the workplace diversity and makes LOHAS workplace to be our goal.

5.1 Selection and Retention of Talents

Manpower is deemed as the Company's most important asset. Talents have outstanding performance and they empower Winbond to accomplish outstanding achievements. With the new and advancing technology, recruitment and retention of talents are even more important to the long-term operations of the Company. Therefore, the Company provides a comprehensive human resources management system and introduces a new integration system for human resources, including recruitment and appointment, remuneration and welfare, as well as talent cultivation, to empower the Company to maintain its long-term competitive advantage in the changing environment around the world.

5.1.1 Workforce Structure

● Global Workforce Arrangement

Winbond values the importance of research and development, innovation and international deployment of business operations, and we have established operational bases in Taiwan, United States, Japan, Israel and Mainland China. As of the end of 2019, Winbond employs 3,244 people worldwide, including 2,987 employees at the headquarters.

Global workforce distribution		
	Full-time staff	Part-time staff
Taiwan	2,978	9
Asia	109	23
North America	72	1
Middle East	39	9



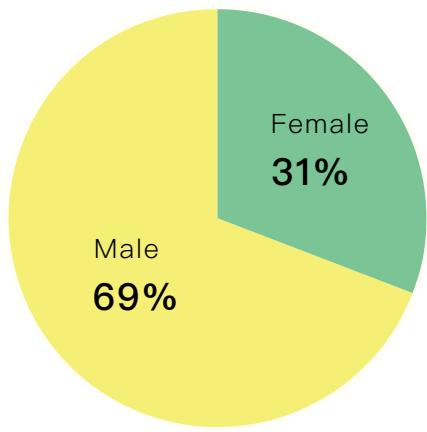
Item	Year	2019			
		Full-time staff	Part-time staff	Other global locations	Total number worldwide
Male	Number of people	2,037	6	199	2,242
	Ratio	62.8%	0.2%	6.1%	69.1%
Female	Number of people	941	3	58	1,002
	Ratio	29.0%	0.1%	1.8%	30.9%
Total	Number of people	2,987	9	257	3,244
	Ratio %	91.8%	0.3%	7.9%	100%

● Employee Composition

In line with the Company's development goals, Winbond optimizes the recruitment process and standards, to recruit high-quality workforce and continuously reinforce the employee composition.

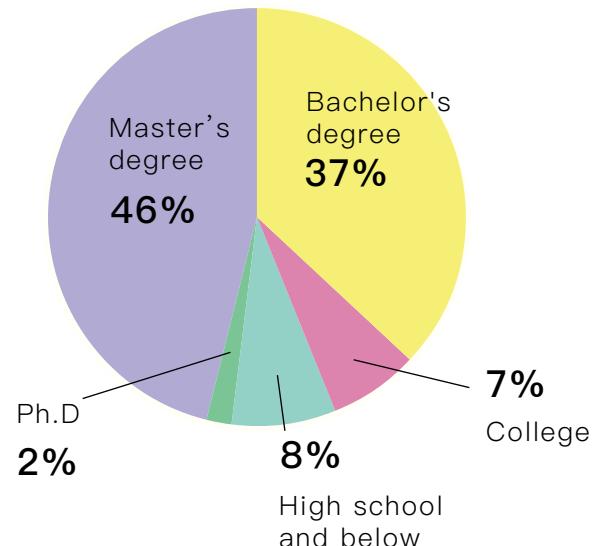
The ratio of male to female employees

The ratio of male to female employees is approximately 2 to 1 due to factors such as the market of employment and technology industry. Winbond also emphasizes on the recruitment and job security of female employees to balance the gender ratio of employees.



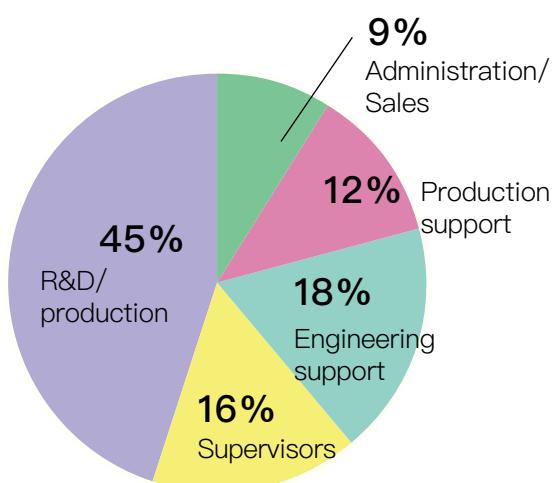
Employees' education

As the semiconductor industry is a knowledge-intensive industry, the ratio of employees who possess a Master's or Ph.D degree is 48%, and those who possess a Bachelor's degree is 37%.



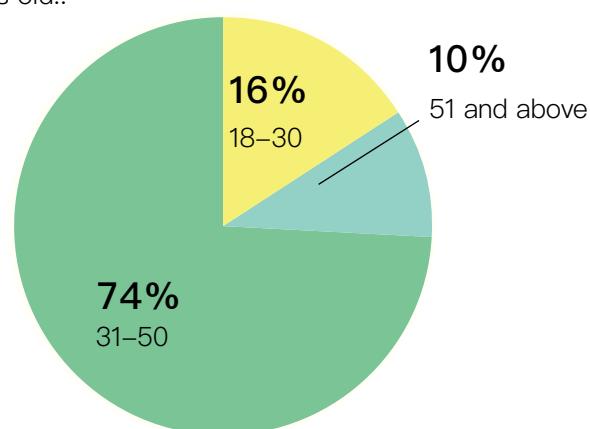
Employees' job position ratio

The R&D and production personnel account for 45% of Winbond's employees, and the production support and engineering support personnel account for 30%.



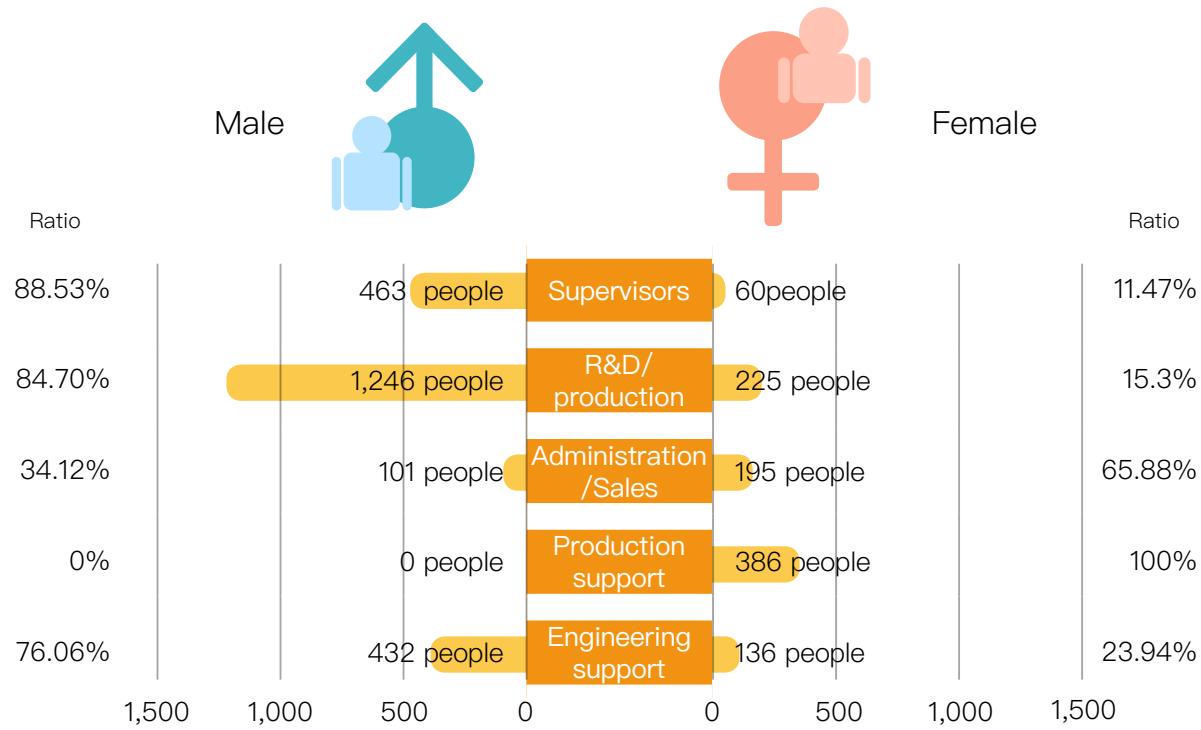
Employees' age structure

For employees' age distribution, Winbond complies with various domestic and international specifications and regulations, and does not employ child labor or those under the age for the completion of compulsory education. 74% of our regular employees are aged between 31 and 50 years old..



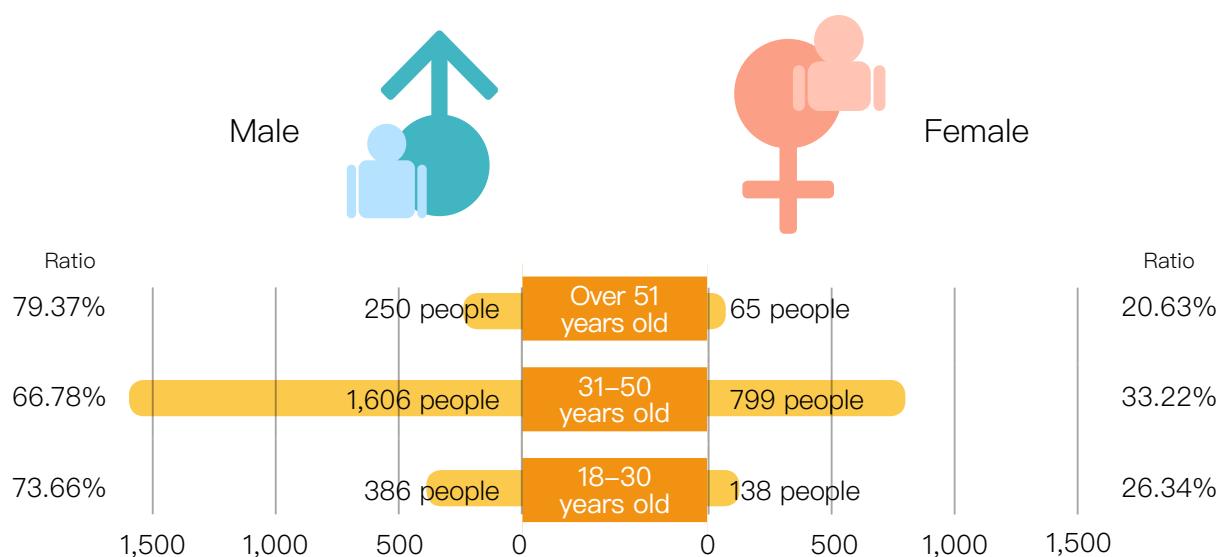
Distribution of gender by positions

Based on factors such as industry characteristics and the market of employment, Winbond's employees are mostly male. The number of male and female employees is 2,242 and 1,002, respectively. At Winbond, all employees are treated equally. Our choice of talent recruitment does not depend on gender.



Distribution of gender by level

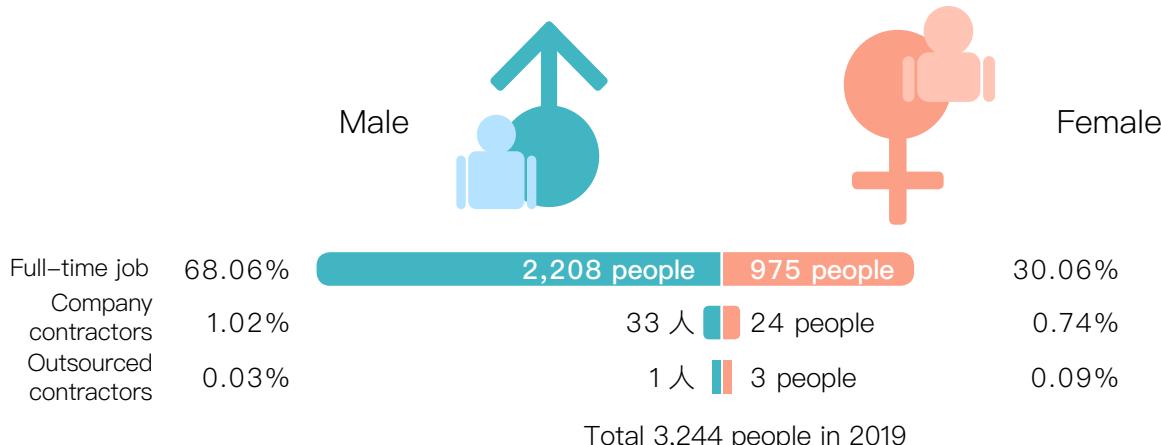
The age structure of Winbond's employees is mainly in the range of 31–50 years old. The ratio of male to female employees is approximately 2 to 1.



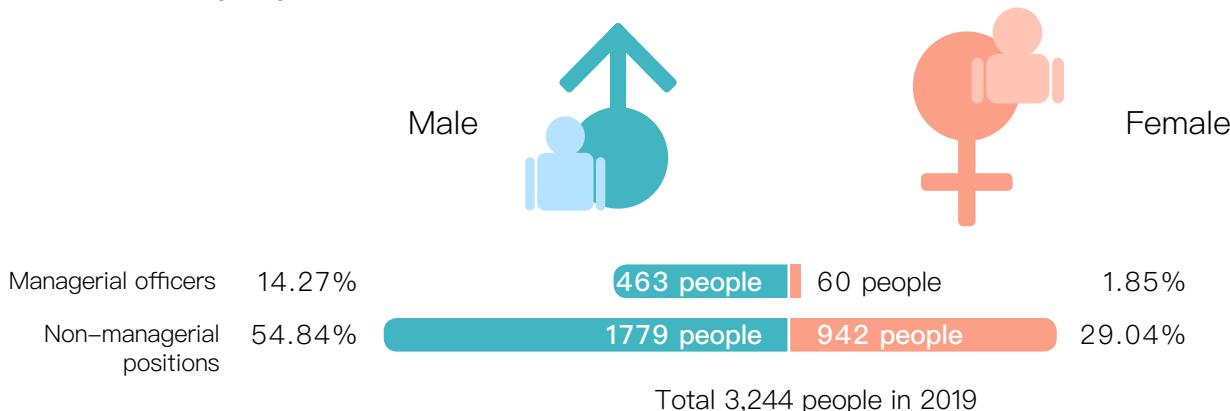
● Employment Type and Distribution of Job Positions

In terms of employment types, the total number of employees is 3,244, including full-time staff, company contractors, and outsourced contractors. In terms of job positions, there are 523 managerial personnel and 2,721 non-managerial personnel.

Distribution of employment types in 2019



Distribution of job positions in 2019

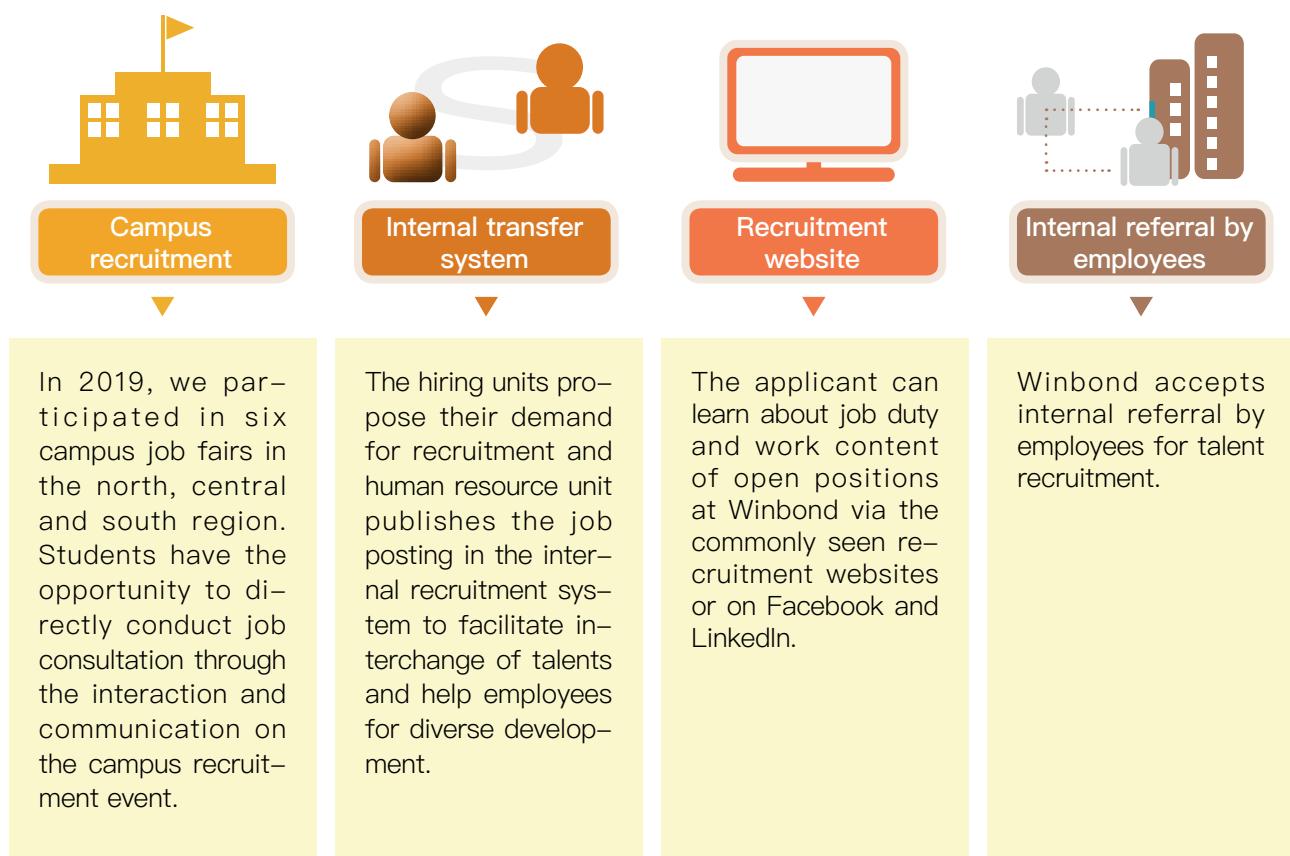


5.1.2 Recruitment and Retention

Winbond offers a salary and benefits system that exceeds the criteria established by laws and regulations, to attract and retain outstanding talents. In addition to reviewing various laws and regulations on labor wages and benefits on a quarterly basis, we also regularly adjust the pay and welfare standards in accordance with market conditions and reward employees with outstanding performance. We believe that a reasonable turnover and manpower replacement may bring new ideas and thinking into Winbond. Moreover, Winbond abides by domestic and international labor regulations and the Responsible Business Alliance (RBA) Code of Conduct and does not employ child labor or those under the age for the completion of compulsory education (in accordance with the laws and regulations of various countries), as well as provides relevant protection measures for our employees.

● Diverse Recruitment Channels for Talents

Winbond recruits new graduates through strict recruitment mechanism and diverse recruitment channels such as job search platforms and campus recruitment. We also encourage our employees to recommend talents for the Company and Internal transfer, so that outstanding talents can find suitable positions for themselves and contribute to their work. In response to the needs of high-level technical professional talents, Winbond employs international talents from Japan, South Korea, India and United States. Our employees are able to collaborate and communicate with international and cross-disciplinary professional talents.



● Number and Ratio of New Recruits and Turnover Employees in 2019

Winbond recruited 378 new employees in 2019, with the rate of new recruits of 12% for the year. 45% of new recruits are young professionals who are under the age of 30 and they are expected to bring new energy to vitalize the organization. In addition, the new recruits who are between the age of 31 and 50 accounts for 52%. With their extensive professional experience, the organization effectiveness is expected to be vitalized and enhanced.

The overall turnover rate was 6% in 2019. For employees who leave Winbond, we take the initiative to understand the reason for leaving as for the reference of future improvement. We also communicate with our employees through large-scale communication meeting and diverse communication channels, so that they can understand the future development of the Company. Moreover, we listen to employees' opinions and provide necessary help in a timely manner, to create a good working environment for employees.

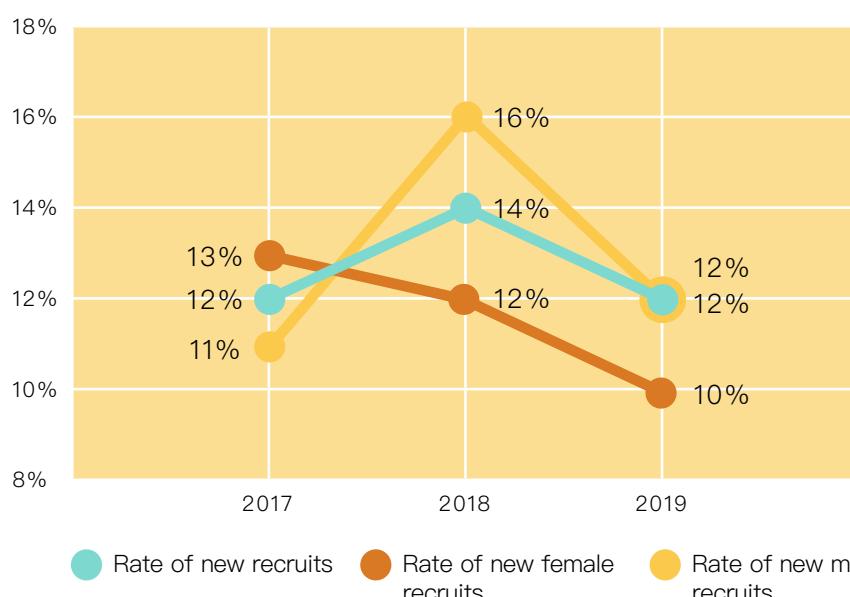
Group	New employees in 2019		Employees left the Company in 2019	
	Number of people	Percentage in this group	Number of people	Percentage in this group
Female	102	27%	65	32%
Male	276	73%	135	68%
50 years old and above	11	3%	12	6%
31–50 years old	197	52%	120	60%
Under 30 years old	170	45%	68	34%
Asia (not including Taiwan)	11	58%	22	82%
North America	2	10%	3	11%
Middle East	6	32%	2	7%

● Statistics of new recruits in the past three years

Year	Male		Female		Total	
	Number of people	Ratio	Number of people	Ratio	Number of people	Ratio
2017	182	11%	117	13%	299	12%
2018	297	16%	107	12%	404	14%
2019	276	12%	102	10%	378	12%

Note: New recruitment rate = the number of new male recruits for the year/the total number of employees as of December 31 of the year

employees as of December 31 of the year

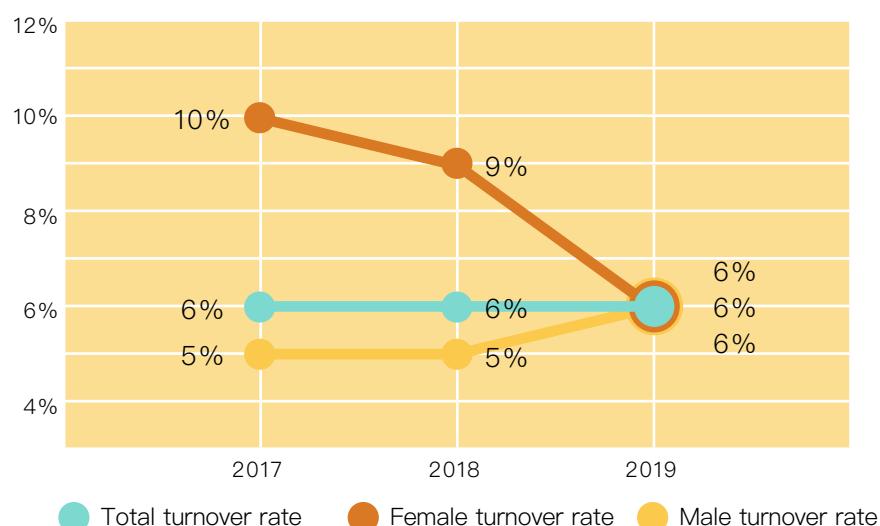


● Statistics of Employees Left the Company in the Past Three Years

Year	Male		Female		Total	
	Number of people	Ratio	Number of people	Ratio	Number of people	Turnover rate
2017	80	5%	85	10%	165	6%
2018	95	5%	77	9%	172	6%
2019	135	6%	65	6%	200	6%

Note: Turnover rate = the number of employees left the Company for the year (including the retired)/the total number of employees as of December 31 of the year

Statistics of employees left the Company in the past three years



In addition to the new recruits and turnover indicators, Winbond also takes into consideration of the retention status of employees as it will be used as one of the indicators for reviewing our workforce policy.

● Retention Rate in the Past Two or Three Years

Item	Number of people
Number of new recruits in 2017 (A)	299
Number of new recruits in 2018 (B)	404
Number of new recruits in 2019 (C)	378
Total	1,081
The total number of new recruits in 2017 who left the Company in 2017/1/1~2017/12/31 (D)	33
The total number of new recruits in 2018 who left the Company in 2018/1/1~2018/12/31 (E)	24
The total number of new recruits in 2019 who left the Company in 2019/1/1~2019/12/31 (F)	46
Total	103

[Note] Calculation formula:

The retention rate of new recruits in the past two years % = (B+C)-(E+F)/(B+C)

The retention rate of new recruits in the past three years % = (A+B+C)-(D+E+F)/(A+B+C)

Winbond's (Taiwan operating base)

Retention rate of new recruits
in the past two years

91%

Winbond's (Taiwan operating base)

Retention rate of new recruits
in the past three years

91%

● Hiring of Employees with Disabilities

Winbond has been actively employing individuals with mental or physical disabilities. By working with governmental employment counseling agencies, we have steadily increased the rate of employees with physical and mental disabilities. As of December 31, 2019, we have hired 19 staff members with disability, and the number of employees with physical and mental disability hired is 21 after being weighted by the degree of disability. The employee rate is lower than the prescribed rate in the regulations is mainly due to the fact that the conditions on the resumes did not meet the job requirements. The difference subsidy had been paid according to the laws and Winbond will continue to provide job opportunities for people with disabilities.

All employees with disabilities are employees who are actually involved in the Company's business operations. The conditions of these employees are analyzed prior to their employment so that specific arrangements could be made for them to understand the commuting route and work process flow. They will also be assisted by relevant personnel with respect to the working environment and equipment they work with, thus assisting them to fit in more easily.

	Male		Female		Total
	Number of people	Ratio	Number of people	Ratio	
Number of recruits	13	68%	6	32%	19
Weighted by the degree of disability	14	67%	7	33%	21

5.2 Diverse Development

With the combination of the Company's vision, business philosophy, cultural values, as well as the survey for training demands, Winbond has planned various learning and development courses, including: four major courses such as self-development, core consensus, professional technology and management of job duties, We provide a variety of online and physical courses, so that our employees can freely enjoy the diverse learning activities without restrictions on time, locations and forms, to strengthen their individual competitiveness, enhance productivity and achieve self-realization.

● Comprehensive Talent Training Courses

Winbond develops and implements the annual training program and conducts resource search based on the analysis of diversified needs (company's strategic needs, leadership and management of supervisors, and employee general needs of skill development). We arrange the training courses at suitable time period and adopts the multi-level inspection methods such as satisfaction survey, course test, and feedback on work implementation, to track and ensure the training effectiveness. In 2019, the actual implementation rate of courses that meet the training development needs of the entire the Company is 86%. In addition to company-wide training courses, we also provide a variety of diversified online courses on the cloud learning platform. Employees can conduct individual learning based on their needs.



Various training and development activities, such as work culture, professional skills, common skills, and leadership and management of executive are integrated with the Company's overall development and employees' individual career development. In addition to lectures, various types of learning activities, seminars, games, group competitions are arranged according to the characteristics of the course, making learning more lively with practical learning experience.

● Average Learning Hours of Employees

Winbond believes that continuous learning is the foundation of innovation and hence we provide employees with various training resources and activities to enhance their professional capabilities. For the frontline employees, the training is focused on the on-job-training, machine operation training, and corporate culture or strategy dissemination campaigns, making them continue to improve. For the supportive employees, we plan and provide professional training to staff at all levels. However, due to the fact that most female employees are in administrative units, and that the professional knowledge required can be obtained mainly through on-job-training; therefore, male employees have slightly more training hours per capita than female employees. An overview of various types of training is outlined below:

Type of training	Total number of courses	Category of trained employees	Total number of participants			Total hours
			Male	Female	Total	
New employee orientation	31 (physical)	Frontline employees	0	32	473	10,593
		Supportive employees	370	71		
Management competency training	20 (physical)	Basic-level supervisor	739	74	1,301	6,965
		Mid-level supervisor	300	23		
		High-level executive	162	3		
Professional skills training	361 (physical)	Frontline employees	0	392	9,655	27,676
		Supportive employees	7,350	1,913		
Core consensus training	45 (physical)	Frontline employees	0	569	1,443	5,831
		Supportive employees	651	223		
Self-development	43 (physical)	Frontline employees	0	0	221	752
		Supportive employees	106	115		
Others (digital learning)	–	Frontline employees	0	1,625	48,620	35,804
		Supportive employees	39,044	7,951		
Others (external training)	–	–	273	53	326	5,265
Total	500		48,995	13,044	62,039	92,886

In 2019, average number of hours of education and training for the employees at Taiwan headquarters is: 31.19 hours/person, with a total cost of NT\$ 10.96 million.

● Four Core Professional Training Courses



● Management Competency

Managerial officers	Professional courses
Basic-level supervisors	Leadership, communication, interview skills, implementation skills and coaching related management courses
Mid-level supervisors	Advanced training of supervisor's competence
High-level executives	The concept and method of business management

Winbond had organized two training sessions for new supervisors in 2019. The training course includes leadership, communication, interview skills, setting of performance goals and counseling, and learning content is put into practice through after-class assignments and mobile applications. For mid-level to high-level managerial officers, we conduct internal sharing seminars on a quarterly basis, to facilitate knowledge sharing and passing on within the Company. In addition, the trend seminars are conducted every quarter, to cultivate future manager's management and innovation horizon; and the videos of the seminars will be used as digital teaching materials for employees' individual learning to optimize the use of training resources.



● Professional Skills

All units of Winbond plans the professional training blueprints according to their actual business needs and internal personnel's professional experience. Through the sharing and inheritance of professional skills by internal lecturers and the trend seminars by external lecturers, the professional competent of employees can be enhanced to achieve their work goals.

For the past few years, innovation is an indispensable driving force for our pursuit of excellence. We had continued to promote the "Triz Course of Innovation Tools" in 2019. A total of 106 employees had participated in the course, with a total of 848 hours. Moreover, we organized the "quality management courses" for supervisors and basic level employees every year in order to raise employees' awareness of pursuing excellent quality. The average satisfaction level of the course is 4.2 points (out of 5 points) in 2019.



● Core Consensus

On the basis of the Company's corporate development of culture and strategy, we provide employees with diversified and important training, to develop their abilities for innovation and problem solving, as well as enhance their recognition toward corporate culture. Through training activities, the employees' competence, loyalty and cohesion can then be strengthened.

To help new employees quickly blend into the organization and learn the knowledge and skills required for their work, Winbond has implemented a two-week training program "combat camp for new employees" since the second half of 2016, which aims at helping new employees with work experience of three years or less. The training program embed cultural DNA to cultivate new employees as cultural seeds, and enhance organizational commitment and willingness of retention. The retention rate of new recruits who attended the orientation training was 88.7% in 2019.



● Self–development

In addition to cultivating employees' professional skills and supervisors' management competence, Winbond also provide a variety of learning channels. Employees can apply for training through various learning channels based on their own needs, such as on-line English courses, in-service training applications, participation in overseas symposiums. Employees can rely on diverse channels for enhancing their professional skills.



● Corporate Social Responsibility Course

Winbond is committed to promoting corporate social responsibility and the Responsible Business Alliance (RBA) Code of Conduct. In addition to the demonstrating Winbond's determination of complying the RBA, we also assist employees to have a better understanding in CSR regulations, so that they can better understand the industry standards of international trends and customers' requirements.

As of the end of 2019, the 2,978 employees at Taiwan headquarters had completed the "Corporate Social Responsibility" course (including labor's human rights, environmental protection, health and safety, and code of ethics) and the course completion rate is 100%.



● New Employee Orientation

In 2019, Winbond provides life coaching, cultural propaganda and the Company's policy introduction through the online training courses, so that new employees can fit into the corporate culture rapidly. The average satisfaction level of the training course for new employees is 4.24, with a course completion rate of 100%.

5.3 Employee Rights and Remuneration

Winbond offers a salary and benefit system that surpasses the requirements as stipulated by laws in order to recruit the best professional talents, including salary, allowances, employee bonuses, rewards, etc., and we distribute various bonuses to share our operational revenue with employees in a timely manner. Bonuses and employee remuneration are also based on the assessment results of employees' performance, professional knowledge and skills.

● Competitive Remuneration

In 2019, the basic monthly salary of Winbond's inexperienced employees is better than the minimum salary required by law and it continue to increase to 1.4 – 1.7 times the minimum salary required by law. Moreover, we adjust salary and bonuses based on performance to reward and retain talents. Every employee at Winbond receives equal opportunity for salary, benefit, assessment, and promotion, regardless of their gender, race, color, religion, political affiliation, sexual orientation, age, marital status, pregnancy, physical and mental disability, blood type, star signs or labor union membership. The annual salary of employees with the highest salary of the Company in Winbond Taiwan divided by the median annual salary of employees is about 27.6 times. In 2019, the salary increase ratio of the highest salary of the Company increased by about 1.3 times the increased ratio of median salary compared to 2018.

Ratio of basic-level employees' standard salary to local minimum salary		
	2018	2019
Frontline employees	1.4 times ^[Note 1]	1.4 times ^[Note 1]
Supportive employees	1.8 times ^[Note 2]	1.7 times ^[Note 2]

[Note 1]: Calculated using the basic monthly salary of an inexperienced employee.

[Note 2]: Calculated using the basic monthly salary of an inexperienced employee who has a bachelor's degree.

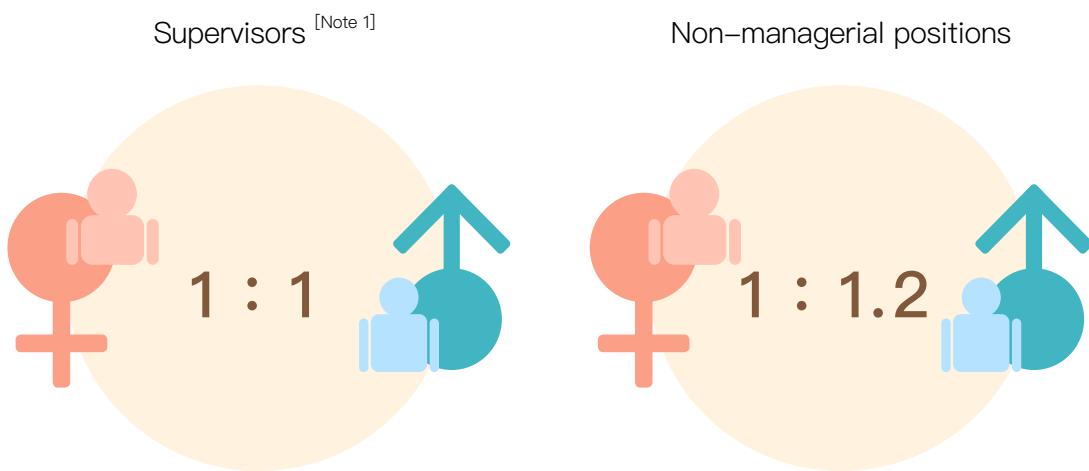
*The standard salary does not vary by gender

Item	2018	2019	Explanation of differences in annual salary
Number of full-time employees in non-managerial positions	2,631	2,808	6.70%
Total salary of full-time employees in non-managerial positions (NT\$)	4,614,619,000	3,794,367,000	-17.80%
Average salary of full-time employees in non-managerial positions (NT\$)	1,754,000	1,351,000	-23.00%
Median salary of full-time employees in non-managerial positions (NT\$)	1,354,000	1,193,000	-11.90%

Remarks: Winbond employees' salary is paid based on the Company's annual operational performance, job duties and responsibilities, and individual performance assessment, which had resulted in a difference between 2019 and 2018.

● Male to Female Average Salary Ratio

There is no difference in the basic wage for male and female workers in Winbond. The employee's wage is based on his/her job position, education and experience.



Note 1: Performance management system for supervisors above division level

● Performance Management

Winbond's performance management system is designed to ensure that all supervisors and employees work toward the same performance objectives. It also helps the supervisors to learn every individual's performance so as to provide them with assistance to develop individual competency, as well as to enhance the overall competitiveness and organizational productivity of the Company.

Winbond creates an evaluation mechanism for new recruits during the probation period. The employees' personal feedback and supervisory evaluation results are used at an early stage to determine whether the new recruits are qualified. Regarding performance management, performance goals are set at the beginning of the year, which are evaluated every six months for progression through the performance review system; and the mid-year and year-end assessments are performed to evaluate the performance of the employees. The evaluation results are used as a reference for bonus, promotion, and performance counseling. In 2019, 100% of the frontline and supportive employees received performance evaluation.

● Diversified Incentive Bonus System

Winbond encourages employees for active innovation and enthusiastic learning through a diversified incentive bonus system. In 2019, a total of NT\$603,326,000 was rewarded to employees.

Item	
Winbond Star Award	Winbond commends significant individual or team contributors of the Company whose work demonstrates Winbond's corporate culture (Ethical Corporate Management, Accountable Team, Enthusiastic Learning, Active Innovation and Sustainable Contribution) on a quarterly basis.
Special bonus	Employees with outstanding performance in assessment or in specific projects are rewarded immediately.
Operating performance bonus	Operational profits are shared with employees according to operational performance on a quarterly basis.
Employee's compensation	The Company's profits are shared with employees on a yearly basis and the amount of profit shared with employees is based on the Company's articles of association, as well as the individual contribution and performance.
Incentive bonus	Provide funds for activities and dinner gathering events to enhance morale of the employees and maintain a good working atmosphere.
Patent bonus	We encourage our employees to engage in inventions with respect to product design, manufacturing, testing, application, and marketing to facilitate patent creation.

● Welfare System

The employees' benefits include salary, bonuses on three major festivals, special bonus, performance bonus, retirement pension and others. The total expenditure on employees' benefits was NT 8,573,370 thousand dollars (including those of the subsidiaries) in 2019, which included NT 8,114,938 thousand dollars for the benefits ^[Note] of short-term employee, and NT 458,432 thousand dollars for the benefits after retirement.

Note: Short-term employee benefits refer to the benefits payable within twelve months of the current period upon employees' completion of related services (except for termination benefits).

● Group Insurance

In addition to labor insurance and health insurance as stipulated by law, Winbond also provides employees with comprehensive group medical insurance covering life insurance, accident insurance, hospital medical insurance and cancer insurance, not only to protect employees, but also to protect their spouses and children. Moreover, self-financed group insurance packages are also available for the employees themselves, their spouses, children and parents. Such group insurance packages may provide additional coverage to make up the deficiency of regular labor insurance and health insurance so that our employees can feel more at ease working at Winbond.

● Minimum Notice Period Regarding Operational Changes

If there are major operational changes, Winbond will give notice period and make announcement to employees in advance as prescribed in the local regulations of each operating base.

● Retirement Pension Plan

In accordance with the local law, Winbond provides either the "old" or the "new" retirement pension plan for all full-time employees. For employees who apply to the old pension system of Labor Standards Act, in addition to the prescribed appropriation at 2% of the monthly salary, the proportion of appropriation will also be reviewed annually. If the balance amount is inadequate to pay the pension amount calculated for workers retiring in the following year, the employer is required to make up the difference in one appropriation before the end of March the following year and deposit the pension contributions in the Bank of Taiwan in the name of Supervisory Committee of Business Entities' Labor Retirement Reserve.

For the new pension system (Labor Pension Act), Winbond appropriates 6% of the monthly salary into the employees' personal retirement accounts based on the classification table of monthly contribution wage. The employees may also contribute the pension based on their wishes, to personal designated account within 6% of the salary according to the classification table of monthly contribution wage. In 2019, the total confirmed appropriation amount of retirement pension (including the old and new pension system) was NT\$205,956,000.

● LOHAS Holiday

To enable our employees to achieve a balance between work and life, Winbond provides LOHAS holiday that is better than the standards required by the Labor Standards Act. Our employees can enjoy seven days of LOHAS holiday during their first year (prorated based on work duration of the employees) without waiting a full year before they are entitled to vacations. Winbond also offers a flexible leave system that allows employees to take leave in hourly increments, offering more choices and flexibility for our employees. The Company also further encourages employees to take longer vacations from annually leave and share more leisure time with their family and friends, to achieve a healthy work-life balance and create more fun to their lives.

Year	Number of employees		Application status of LOHAS holiday	
	Female	Male	Number of employees	Ratio
2019	941	2,037	2,161	73%

Note: it is based on in-service staff, engineering assistants and contractors as of 2019/12/31

● Parental Leave

To enable employees to take care of their family and achieve a work–family balance, Winbond provides employees with the parental leave without pay. Through a comprehensive leave and holiday management system, employees can flexibly use leave to take care of their children.

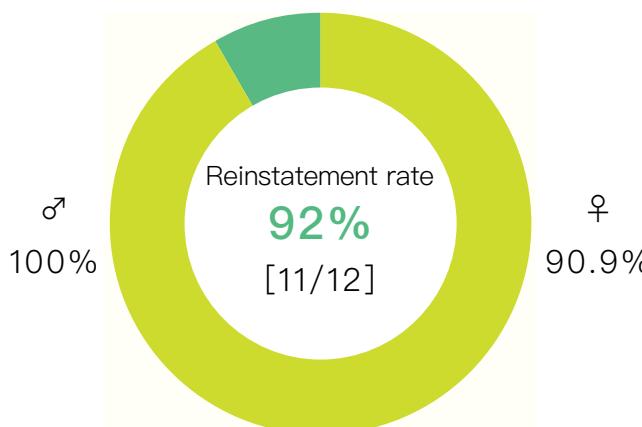
In 2019, 17 employees were on parental leave without pay and the reinstatement rate after the parental leave was 92%.

	Male	Female	Total
Number of people eligible for parental leave without pay [Note 1]	330	140	470
Number of people applying for parental leave without pay	1	16	17
Expected reinstatements in 2019 (A)	1	11	12
Actual reinstatements (B) in 2019 (B)	1	10	11
Reinstatement rate (B/A)	100%	91%	92%
Number of reinstated employees in 2018 (C)	4	9	13
Number of people working for more than one year after reinstatement (D) [Note 2]	1	9	10
Retention rate (D/C)	25%	100%	77%

[Note 1]: The statistics include the employees who applied for maternity leave and paternity leave from 2015/1/2–2018/12/31 and are still in service as of December 31, 2019 (including leave without pay).

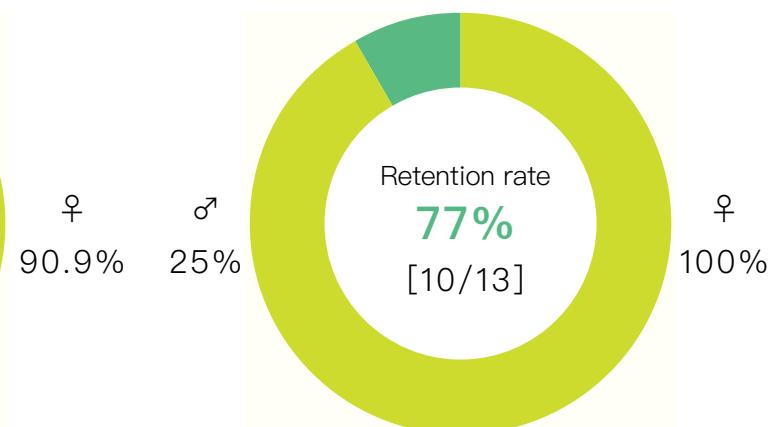
[Note 2]: The calculation period started from the effective date of the employees' reinstatement and continued for one year without resigning (as of Dec. 31, 2019).

● The Number of Applicants for Parental Leave, Reinstatement and Retention Status at Winbond in 2019:



Estimated number of reinstatements in 2019:
1 ♂ 11 ♀

Estimated reinstatements in 2019 that reinstated in that year: 1 ♂ 10 ♀



The number of reinstated employees in 2018:
4 ♂ 9 ♀

Number of people who are still working in 2019 after reinstatement of parental leave in 2019:
1 ♂ 9 ♀

● Parental Allowance

In response to the government to raise childbirth rate in Taiwan, Winbond has implemented a "parental allowance" policy since April 2011. The allowance is NT\$ 5,000 for each child per month until they reach 4 years old and our employees' childbirth rate has been effectively raised. A total of 1,309 applications have been made for subsidies from 2011 to 2019, which not only helps novice parents reduce the financial burden of parenting, but also enhances our employees' reinstatement rate as well as their sense of happiness.

Item	Description
Content of allowance	Amount of allowance: NT\$ 5,000 every month for every new born child. Allowance duration: Until the child reaches the age of 4
Implementation effect	Number of applications: A total of 1,309 applications have received the allowances during 2011 to 2019.

This allowance measure was originally scheduled to be terminated in March 2016; however, due to the excellent effects in promoting fertility, the measure was decided to be extended to March 2021. In 2019, 85 new male employees and 48 female employees were granted the subsidy, with a total of subsidy amount of 30.81 million dollars. By providing childbirth subsidies, Winbond has become a strong supporter for employees to take care of their families, and it has also achieved the effect of enhancing employees' sense of identification and loyalty.

● Childbirth and Marriage Allowance

In addition to the childcare allowance, Winbond also provides employees with the marriage and childbirth allowance. In 2019, a total of 35 male and 15 female employees received marriage allowance, and 75 male and 33 female employees received maternity allowance, with a total sum of NT\$ 158,000.



● Diversified Development of Social Clubs

Winbond encourages employees to engage in health promotion social clubs and promotional activities for public interests. The Company has formulated the "Regulations for Staff Welfare Committee's Subsidy Management" to encourage employees to run social clubs to enhance emotional communication and improve their physical and mental health and work efficiency. There are currently 47 registered social clubs which is one more than last year. Based on the nature of activities, these social clubs can be classified into four categories: sports, LOHAS, art and culture, and public welfare. The number of participations of all activities of these social clubs is estimated to be 53,652 participants/year:



Sports clubs

There are 26 sports clubs, including various types of balls, cycling, road run, accounting for 55% of the entire social clubs.

Many of the members are high-level executives, whose membership greatly promotes the participation of the department. The badminton club and the softball club from our Central Taiwan Science Park factory are frequent winners of the "Central Taiwan Science Park Cup Ball Games" over the years.



Art and culture clubs

This category with 5 clubs includes the biodiversity club, anime club, and photography club, accounting for 11% of the entire social clubs. These clubs make use of existing resources of the Company to conduct activities, such as lectures, annual photography exhibitions, and film appreciation activities. Activities under this category attract the highest proportion of employees' family participation.



LOHAS clubs

This is the most diversified category that includes 15 clubs for entertainment guides, camping, and board games, accounting for 32% of the entire social clubs. Diversified club activities may expand the members' horizon and develop their interests.



Public welfare clubs

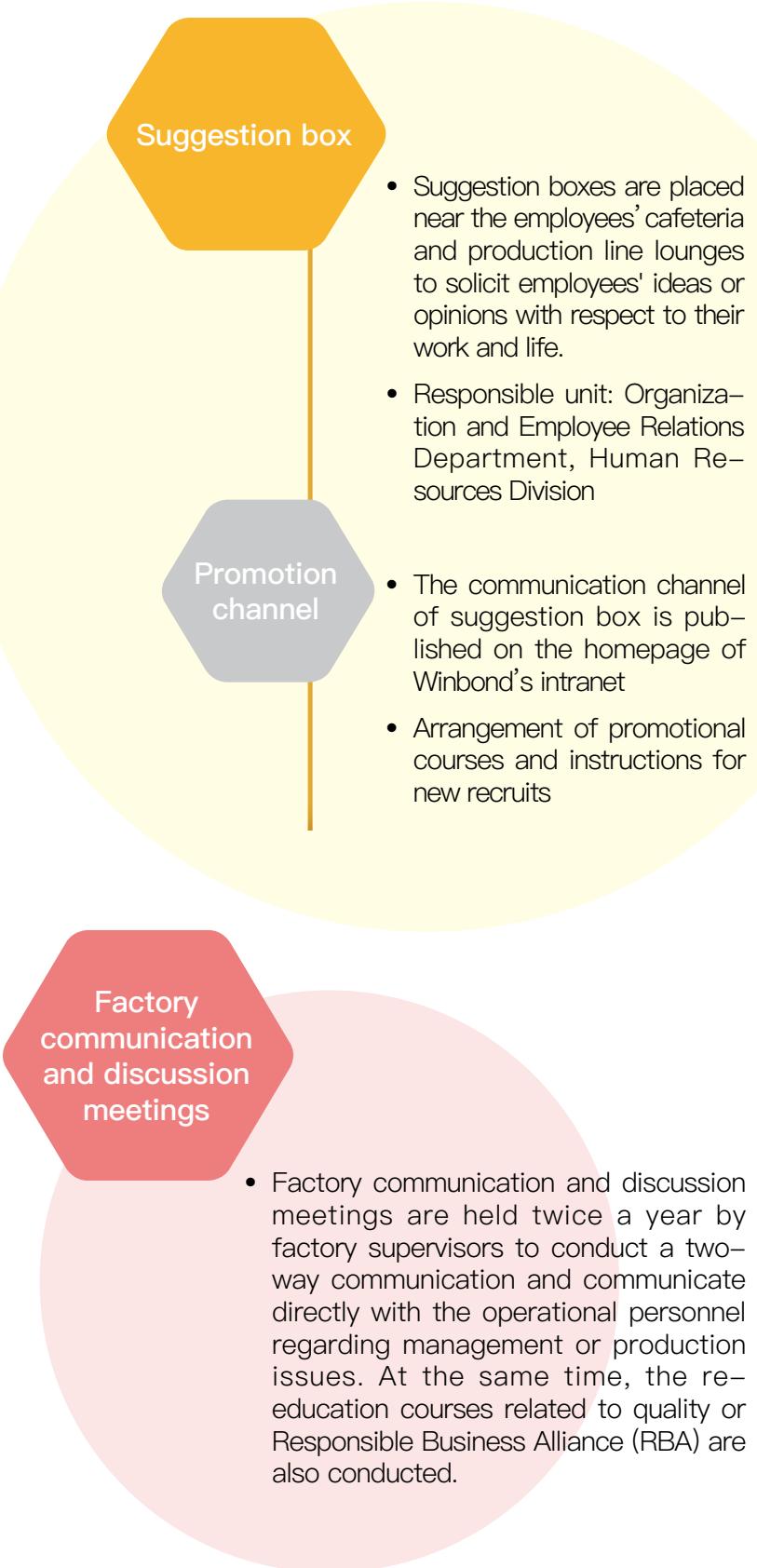
This category has one club, accounting for 2% of the entire social clubs. The Silence Club engages in actions that are beneficial to public welfare to fulfill our responsibility as a corporate societal citizen. Activities are focused on caring for the underprivileged group, social services, environmental sustainability, and so on. Since its establishment in 2010, the club has organized a series of activities including neighborhood cleaning, dream fulfillment activities, cleaning of nursery homes, and happy children's breakfast plan, etc.

● Labor-management Communication Channels

Winbond provides diverse, open and transparent channels to facilitate labor-management communication, including suggestion boxes, complaint hotline (the 75234 hotline), complaint mailbox, sexual harassment handling committee, and various functional communication meetings, such as labor meetings, supervisors management seminar, staff welfare committee, environmental safety committee, production management meetings, and quality re-education meetings.

In addition, employees may also express their opinions or suggestions either non-anonymously or anonymously through various channels, such as suggestion boxes, labor-management meetings, and management and discussion meetings of supervisors; and the responses will be published on the homepage of the Company's intranet. Winbond also collects employees' opinions through focus groups and individual interviews as the reference for the future management policies and basis for the improvement of service quality. In addition, we also arrange courses for all new recruits to ensure that our employees know all of the relevant communication channels in detail. There is only one complaint case in 2019 and the case had been closed.

● Diverse Communication Channels for Employees' Opinions



Complaint hotline

- Winbond has set a complaint hotline (75234) for employees and the "Company's internal complaint form" should be filled; it can be sent to the "suggestion box of employees' opinions" set by the human resources unit in written or by email and the dedicated personnel will process accordingly. In addition, to build a work environment free from sexual harassment for the protection of the rights of employees and job seekers, Winbond stipulated the "Sexual Harassment Prevention Rules at workplace" and established the "Sexual Harassment Appeal Committee" with a dedicated Website for the prevention of sexual harassment at workplace.
- Responsible unit: Organization and Employee Relations Department, Human Resources Division
- Phone: +886-4-25218168 ext. 75234
- E-Mail: Care@winbond.com
- Fax: +886-4-25213513

Promotion channel

- Arrangement of promotional courses and instructions for new recruits
- Employees can file their complaints through the following complaint channels

Management and discussion meetings of supervisors:

- The purpose of the management and discussion meetings of supervisors are to enable all supervisors to directly interact with the chairman and the president on issues regarding the Company's operations and managerial system.
- In 2019, 4 management and discussion meetings of supervisors were held and these meetings were attended by a total of 1,307 participants, with an attendance rate of 70%.

Promotion channel

- The communication channel of suggestion box is published on the homepage of Winbond's intranet
- Arrangement of promotional courses and instructions for new recruits

Labor-management meetings

- The Company regularly convenes labor-management meetings for re-election of labor representatives by all employees and all employees' opinions and suggestions are collected on a quarterly basis. The meetings are held to address issues such as labor relations coordination, labor-management cooperation, labor conditions and welfare, and work efficiency enhancement through comprehensive communications.
- During year 2019, eight labor-management meetings were convened and there were no major resolution or related voting cases.

Promotion channel

- The communication channel of suggestion box is published on the homepage of Winbond's intranet
- Arrangement of promotional courses and instructions for new recruits

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● Application Status of Complaint Channels in 2019

Communication channels	Number of cases received	Number of closed cases	Number of unhandled cases
Physical and electronic suggestion box	11	11	0
Complaint hotline	1	1	0

● Human Rights Policy and Actions

In accordance with the International Bill of Human Rights, Winbond protects employees' rights of freedom of association. Every employee at Winbond shall not be discriminated, regardless of their race, age, gender, sexual orientation, disability, pregnancy, political affiliation, or religion. Winbond also regularly conducts relevant training every year for the prevention of unlawful discrimination. In order to ensure equal job opportunity for everyone and prevent all possible risks of human rights violation, Winbond has stipulated strict recruitment procedures since the beginning of the recruitment process, and any unlawful discrimination to the applicants is strictly prohibited. The training for supervisors' employee recruitment also contains relevant content about no discrimination against job applicants.

In addition, Winbond abides by the "Act of Gender Equality in Employment" and all employees are treated equally with respect to leaves. All employees may apply for leaves on the basis of menstrual leave, fetal leave, routine prenatal visit leave, maternity leave, paternity leave, parental leave without pay and family care leave.

● Applications for Leave on Aboriginal Rituals and Ceremonies in 2019

Year	Total number of aboriginal employees	Applications for leave on aboriginal rituals and ceremonies	
		Number of employees	Percentage
2017	6	3	50%
2018	5	1	20%
2019	8	2	25%

5.4 Occupational Safety, Health and Hygiene

5.4.1 Safety and Health Management Practices

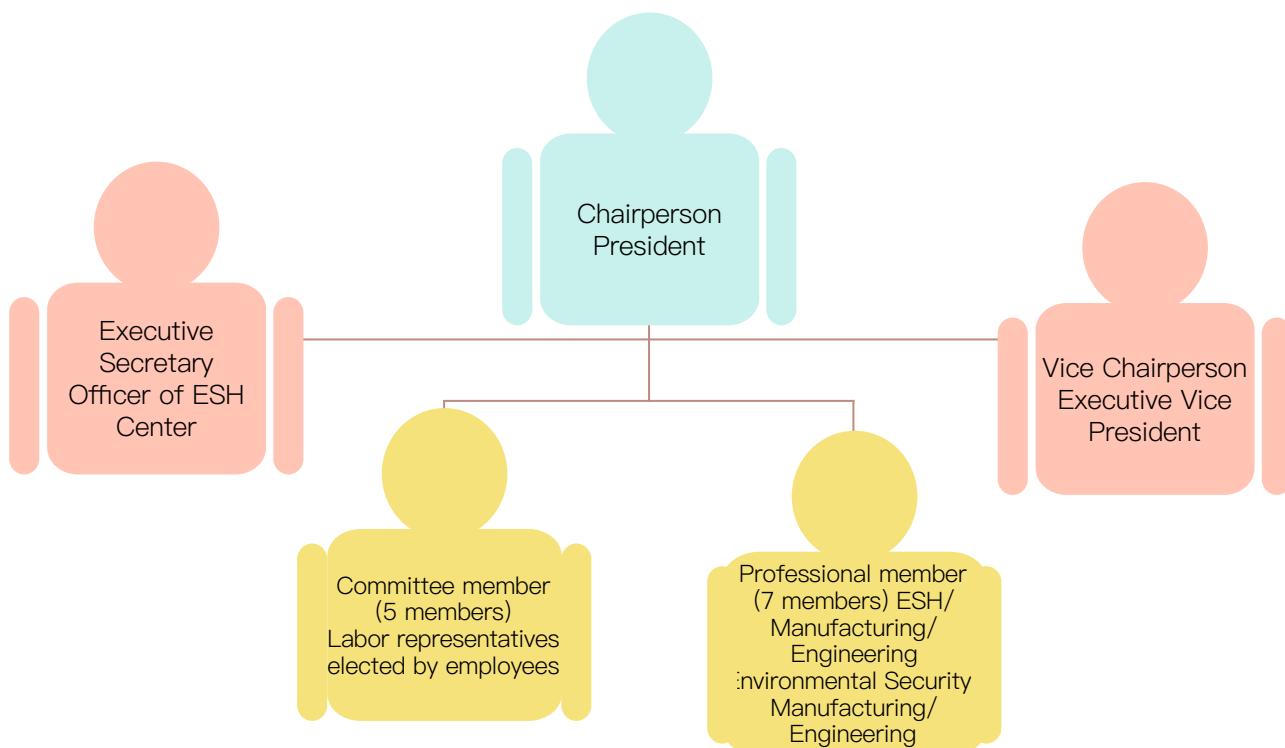
Winbond is committed to be in compliance with international advanced standards of safety, health and environmental protection. We are committed to providing a work environment that is healthy and complies with laws and regulations, through respect, caring, as well as worker consultation and the participation mechanism. We continue to improve occupational safety, eliminate hazards, and reduce risks of environment, safety, health and property. Furthermore, health promotion activities are conducted to strengthen loyalty and develop a LOHAS company culture. Disasters and losses can be prevented in advance through comprehensive management and active participation of all employees. Zero disaster and reduction of environmental load are the corporate social responsibilities of a world-class enterprise.

We will implement appropriate prevention and improvement measures to gradually reduce injury of personnel and implement the safety and health concept, to become a sustainable green enterprise.

● ESH Management Structure and System

The Company's ESH and Risk Management Committee

Winbond's ESH and Risk Management Committee regularly convenes meetings to discuss matters regarding safety, health, and environment. The meeting participants are constituted of 15 members including representatives of the management, representatives appointed by employees of various units, labor representatives elected by employees through voting, and staff of safety, health, hygiene and environmental management. The five employee representatives elected by the staff account for one-third of the members, enabling sufficient face-to-face communication between employees and the management; an administrative secretary in charge of safety, health and environmental protection is appointed in each department to assist with the counseling and promotion of safety, health, and environment-related business among all employees.



● ESH Management System

Winbond has been certified by the “Occupational Health and Safety Management Systems” (OHSAS18001) and the “Taiwan Occupational Safety and Health Management System” (TOSHMS). We conduct internal audits every six months and external audits by international verification companies on a yearly basis to ensure proper functions of the system.

Moreover, the conversion verification of the Occupational Safety and Health Management System for ISO 45001 and TOSHMS had been completed in 2019. Winbond strictly complies with government's laws and regulations concerning safety and health, and implements safety and health management, including safety and health risk assessment, stipulation and implementation of safety and health work regulations, and holding safety and health training and drills.

Winbond has won many governmental awards on safety and health, including the "Friendly Workplace Certification" issued by the Ministry of Labor, the "Health Promotion Badge" issued by the Ministry of Health and Welfare, the "Excellence in Control of Operational Environmental Exposure to Hazardous Substances" and "Excellence unit of safety of hazardous materials use/procurement management and high-risk operations management" issued by the Central Taiwan Science Park Management Bureau. ▶

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For hardware security control, Winbond requires its vendors to provide a Semiconductor Equipment and Material International (SEMI S2) evaluation report that is verified by third-party agencies to ensure safety requirements of the machine are met prior to procurement of machines. A series of safety control measures are taken when the machine is delivered to and placed in the plant. In addition, to ensure safety during installation, an Equipment Sign-Off program is conducted to verify whether the safety facilities are functioning properly, and whether the built-in firefighting facilities, various facilities regarding safety and environment, and signs have been completed before putting the machine into operation and production.

● Accident Investigation and Prevention of Injuries

To reduce the risks of injury and accident, Winbond has established a comprehensive standard procedure for accident investigation. In the event of an accident, an investigation level will be defined according to the severity and type of the accident and then a corresponding investigation team will be formed for investigation.

On the basis of the ESH management system operating procedures, Winbond is able to continue to safeguard the workplace safety, reduce potential risks, and continue to make improvement through the routine internal audits, reviews and updates every six months, as well as external audits and supervision every year.

● Statistical Analysis of Disabling Injury in 2019

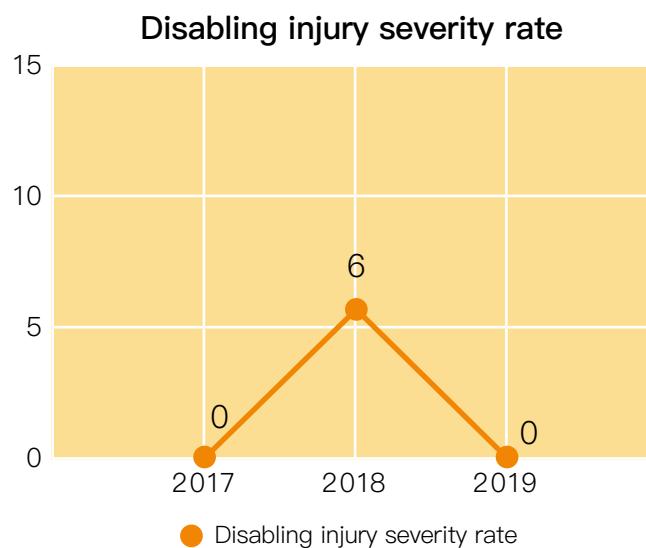
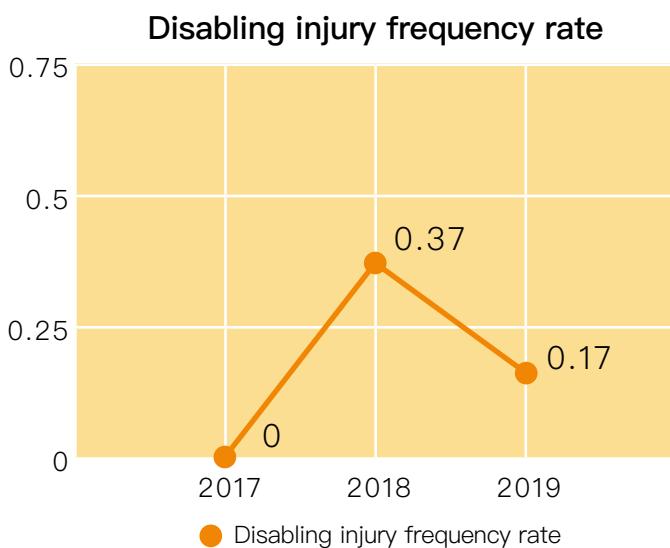
According to the critical statistical indicators for disabling injury published by the Ministry of Labor, Winbond's statistical data on occupational accidents in 2019 are based on the disabling injury severity rate (SR, days of disabling injury per million work hours) and disabling injury frequency rate (FR, number of disabling injury per million work hours). The statistics does not include off-site traffic accidents.

There was one case of disabling injury in 2019. The disabling injury severity rate was 0, and the disabling injury frequency rate was 0.17. In response to the injury cases, improvement measures have been proposed. The number of fatal accidents at work was 0, and the incidence of occupational diseases was 0. The absence rate of the entire company due to diseases (including work-related injuries, sick leave, and menstrual leave) was 0.54%, with the male/female absence rate being 0.87%/0.37%respectively. In 2019, there was 0 case of disabling injury with our contractors, with the disabling injury severity rate and the disabling injury frequency rate both being 0.

In 2019, one male employee involved in a disabling injury due to traffic accident in the factory, and thus we did not achieve the annual target of the disabling injury severity rate and the disabling injury frequency rate both being 0. The cause of the traffic accident was due to the change in the parking route. In the beginning of the route change, the employee did not pay attention to and hit the horizontal bar on the ground while riding motorcycle to work, causing bruises on face and hands. We have made improvement based on the accident, including adding double-sided signs at the entrance and exit, so that employees can clearly distinguish the signs; adding warning chains to separate the lanes and parking spaces, and prevent inadvertent entry; and the lighting on the first floor of the parking tower is adjusted to totally light up to prevent the issue of poor visibility when employees ride motorcycle at night.

● Occupational Safety and Health Education and Training and Injury Prevention

To reduce the occupational accident and enhance employees' understanding of safety and health regulations, Winbond conducts occupational safety and health education and training on a yearly basis. In 2019, there were 8,996 participants joined the training for non-managerial personnel, with a total of 11,535 training hours; and there were 1,980 participants joined the training for managerial officers, with a total of 2,560 training hours. Winbond creates a corporate culture that values occupational safety and health as well as establishes a safe and healthy workplace environment through the education and training for all employees.

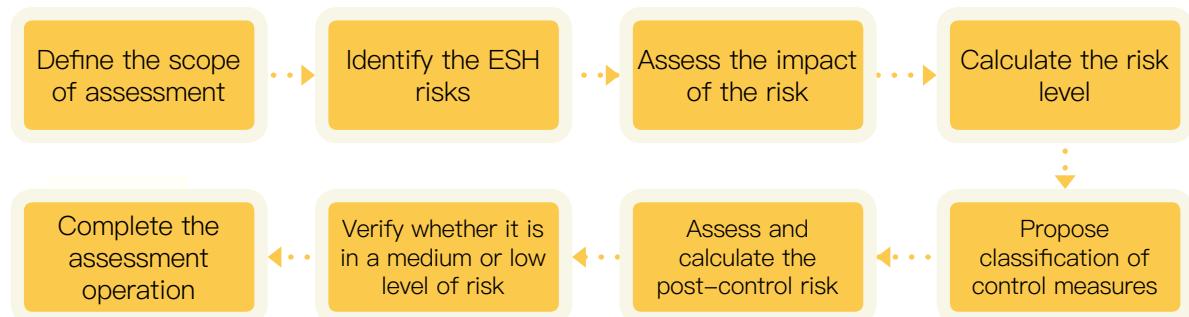


Gender	Male		Female		Total	
	Employees	Number of participants	Training hours	Employees	Number of participants	Training hours
Managerial officers	1,766	2,302	214	258	1,980	2,560
Non-managerial positions	6,246	8,587	2,750	2,948	8,996	11,535

5.4.2 ESH Risk Assessment

To ensure the safety of all employees at workplace and minimize their risks, Winbond had stipulated the "ESH Risk Assessment Operating Procedures" to identify the ESH risks and opportunities for the environment, personnel safety and health caused by activities, products or services. According to the operation process in the past and the current status, Winbond evaluates the possible situation, influence or impact (including personnel injury, environmental impact, production suspension or financial loss), calculates the possibility of occurrence and its risk level; and we also develop the improvement measures to reduce risks based on the priority order for elimination, replacement, engineering control, signs/warnings/management control, and personal protective equipment.

Winbond carries out internal audits at least once a year and conducts annual reviews in order to ensure the effectiveness of the “ESH Risk Assessment Operating Procedures”; at the same time, the assessment will be conducted again in the event of major changes in manufacturing process, facilities, and operations.



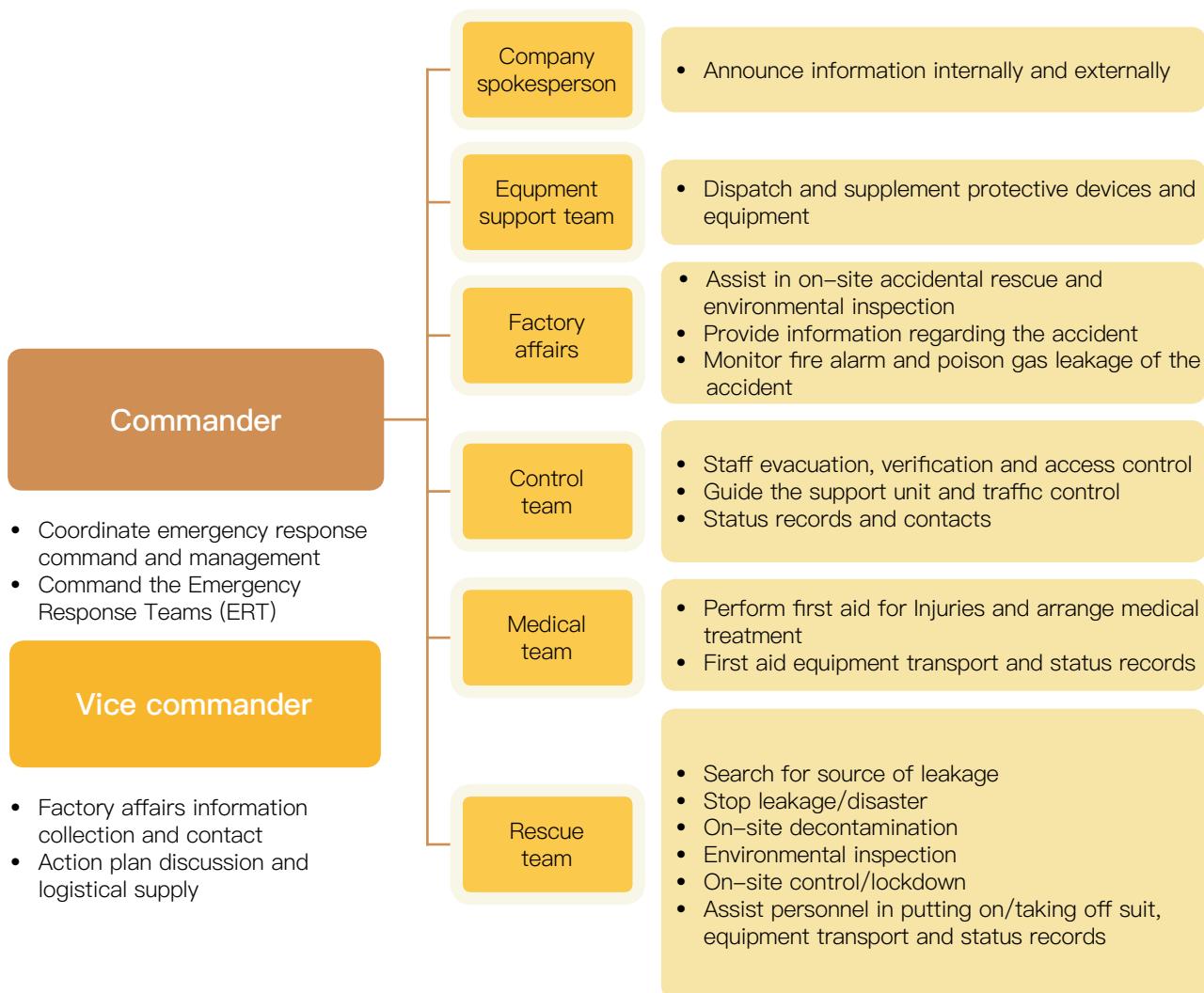
5.4.3 Emergency Response Measures

Winbond’s ESH and Risk Management Division has stipulated emergency response procedures for internal accidents in all areas and external natural disasters, such as fire/fire alarm, gas leak alarm, leak of chemical substances, earthquake, odor treatment, etc. Based on the procedure, individual units may stipulate their own plans for emergency response, emergency groups, drills, and conduct training.

Risk category	Risk identification	Adopted measures/actions
Operational risk	1. Fire 2. Power interruption 3. Leak of chemical substances 4. Air pollution/abnormal discharge of waste water	1. Design and create the fire protection system according to international standards (NFPA, FM) and domestic firefighting laws, including fire alarm detection system, automated fire extinguishing systems, and fire protection compartments 2. Emergency generators and uninterruptible power supply system are installed 3. Design and construct plant facilities following international industrial standards and use machines that meet international standards (SEMI-S2, FM4910) 4. 24-hour monitoring system for air pollution/wastewater treatment facilities
Natural disaster risk	1. Earthquake 2. Water shortage	1. Level 7 aseismic design for factory and aseismic design for the facilities and machines 2. Backup pool
Regulatory risk	1. Occupational Safety and Health Act, Fire Services Act and Environmental Protection Act	2. Regularly conduct compliance verification 3. Identify the impact of new regulations and take corresponding measures 4. Conduct regular testing and declaration according to laws and regulations

● Organizational Structure and Duties for Emergency Response

The Emergency Response Team (ERT) is created in all regions of the factory. The regional officers in these regions or high-level executives shall serve as the commander, and all team members shall take training and participate in drills on a regular basis. We expect to minimize the impact of personal injury, property loss and production interruption that result from various emergencies.



● Emergency Response Drills

..... Emergency Response Drills in 2019



When an emergency occurs, the ERT medical team leader is called for the emergency



The rescue team is putting on the protective suit before going to the site of the accident

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The firefighting drills scene of a fire incident



Environmental inspection at an accident site and inspection for abnormality

Winbond has stipulated the content and plans of contingency process for potential emergency and abnormal status that may occur in each region and regularly implements emergency response drills to prevent expansion of disaster and enhance the response capabilities of the plants.

In 2019, Winbond conducted a total of 86 emergency accident drills in response to fire, chemical substances, gas leak, water leak and electricity shock, and other conditions.

Item	Total number of drills
Fire alarm	37
Leak of chemical substances	16
Gas leak	9
Water leak and electricity shock	6
Others (emergency evacuation, personnel faint, and power interruption due to short circuit)	18
Total	86

5.4.4 Health Promotion

Winbond is committed to creating a balanced work environment to enable all of our employees to enjoy their work and life. From the perspective of health, LOHAS and public welfare, we planned to promote various systems and activities that will help employees develop a balanced life among health, family and work.

Winbond believes that a high-quality workplace will bring vitality and happiness to our employees and thereby contributing to their growth. We comply with the laws and regulations regarding the protective measures for female employees and employees who are under the age of 18. All of the outstanding employees are provided with generous pay and benefits and opportunities for promotion. We offer various professional courses, training courses on physical and mental growth, language communication training as well as various communication meetings to foster talents who can implement Winbond's corporate values of "Ethical Corporate Management, Accountable Team, Enthusiastic Learning, Active Innovation, and Sustainable Contribution" so that our employees will grow together with the Company in a joyful atmosphere filled with positive energy.

● Health Examinations

Winbond offers our employees a quality, meaningful health examination and special health examination for those involved in tasks with special health hazards on a yearly basis, exceeding the standards required by laws and regulations with the employee's consent. In addition, a series of regular health check-ups are also arranged, including abdominal echo, female breast and pelvic sonogram, pap smear, ophthalmology examination, and physical fitness test. From the perspective of preventive medicine, early screening and prevention are beneficial for the promotion of comprehensive health management and promotion.

We comply with the regulations and arranges special health examinations for employees who are particularly engaged in hazardous operations in accordance with the Labor Health Protection Regulations. In 2019, a total of 126 special operational personnel received special health examinations and the results were all under level 2 healthcare management. The different levels of healthcare management and promotion measures were implemented in accordance with the laws and regulations.

In 2019, Winbond purchased software for the health management system in order to provide real-time information that is continuous and more comprehensive, so that employees' blood pressure related data can be sent back to the back-end health management database in real time after logging in to the system. Winbond's employees can utilize the personal health management feature in the system to have a comprehensive understanding of their health status, such as weight, blood sugar, water drinking amount, exercise time and calorie records. The health management unit can also configure the health management system in the database for sending a reminder to the health management unit regarding abnormal physiological values of a specific group, to facilitate the follow-up track and care. In 2019, a total of 2,096 people had used the system for health records.

Employees can also register various activities on the health management system platform, such health LOHAS seminars, LOHAS public welfare activities, weight loss classes, etc. In 2019, a total of 1,081 people had registered related activities through the system.

Annual health examination



Abdominal ultrasound examination



Track health condition – blood pressure measurement



● Occupational Health and Nursing

Item	Content	Number of participants in the training in 2019
CPR and AED training	<p>We regularly arrange first aid training for the medical staff of the Emergency Response Team on a regular basis so that they can perform first aid without delay.</p> 	A total of 172 staff have completed the training.
Dissemination of Illegal Infringement Prevention in the Workplace – Supervisor Training	<p>The management regulations are stipulated and training and education is conducted so that employees can understand the precautionary measures and the procedures for complaint and reporting within the Company. We also advocate the precautionary measures to all employees every year</p> 	A total of 95 people has completed management level education and training courses.
Identification of and Handling Employees' Problems – Supervisor Training	<p>To enhance the supervisors' perception ability of common problems of employees and for supervisors to assist employees in handling their problems, related education and training was held for the identification of employees' problems, handling the problems and care for the employees.</p> 	A total of 56 people has completed the management-level training courses.

● Health Care

Item	內容
Maternal health guardianship and management	<p>In addition to the protective measures for maternal health required by law, Winbond further provides mothers with the following extra maternity care:</p> <ol style="list-style-type: none"> 1. One-on-one health counseling is provided and all mothers receive a pregnancy gift and pregnancy card, which allows them to understand Winbond's exclusive welfare policies and application methods. 2. A noon-break room is provided for these mothers-to-be to take a rest. Moreover, pregnant women are provided with exclusive parking space to help them alleviate discomfort during pregnancy. 3. A cozy and comfortable breastfeeding room is provided.
Prevention of overload	For high-risk groups of cardiovascular diseases, the health management unit keeps track of the health conditions of the employees on a regular basis, and they will be arranged for consultation with medical doctors one by one. Professional nurses are available to provide listening services in a timely manner. If necessary, they can provide referral services for professional counselors and psychologists, or even provide other relevant resources.
Health management of metabolic syndrome	Winbond provides convenient re-examinations and follow-up tests, free health consultation with a specialist doctor, and nursing care services on a regular basis. In addition, we provide customized classes of weight loss, and incentives are provided for Winbond's employees to lose their weight.
Health management of abnormal liver dysfunctions group	Hepatitis and liver cancer are the two major causes for health risks among labors in Taiwan. In Winbond, the conditions of employees with a high liver function index is tracked by nurses on a regular basis, and health consultation is also provided by specialist physicians.

Influenza vaccination activities



Breastfeeding room



Noon-break room for mothers-to-be employees

I. Sustainable business operations

II. Ethical Corporate Management

III. Excellent Quality

IV. Environmental Sustainability

V. LOHAS Workplace

VI. Giving back to the society



Health care examination –
Ophthalmology examination



Free health consultation
with specialist physicians

● Health Promotion

To promote a balance between body and mind, sports venues are built for the convenience of the employees to exercise. Winbond's recreational center provides a variety of sports and recreational facilities including gymnasium, basketball courts, badminton courts, volleyball courts, table tennis courts, billiard rooms, children's reading room, and a variety of books, magazines, as well as audiovisual areas.

Winbond not only provides free tendon-stretching courses but also various sports clubs, to encourage employees to maintain a habit of regular exercise. To promote sports and fitness activities, a million calorie collection event was launched in 2018. The aim of this even was to help everyone form a habit of exercising to maintain good body figure and health through the power of peers and groups. The accumulated calories consumed through exercise exceeded 10 million and this calorie collection event continues in 2019.



Improve employees' physical and mental health
through tendon-stretching courses



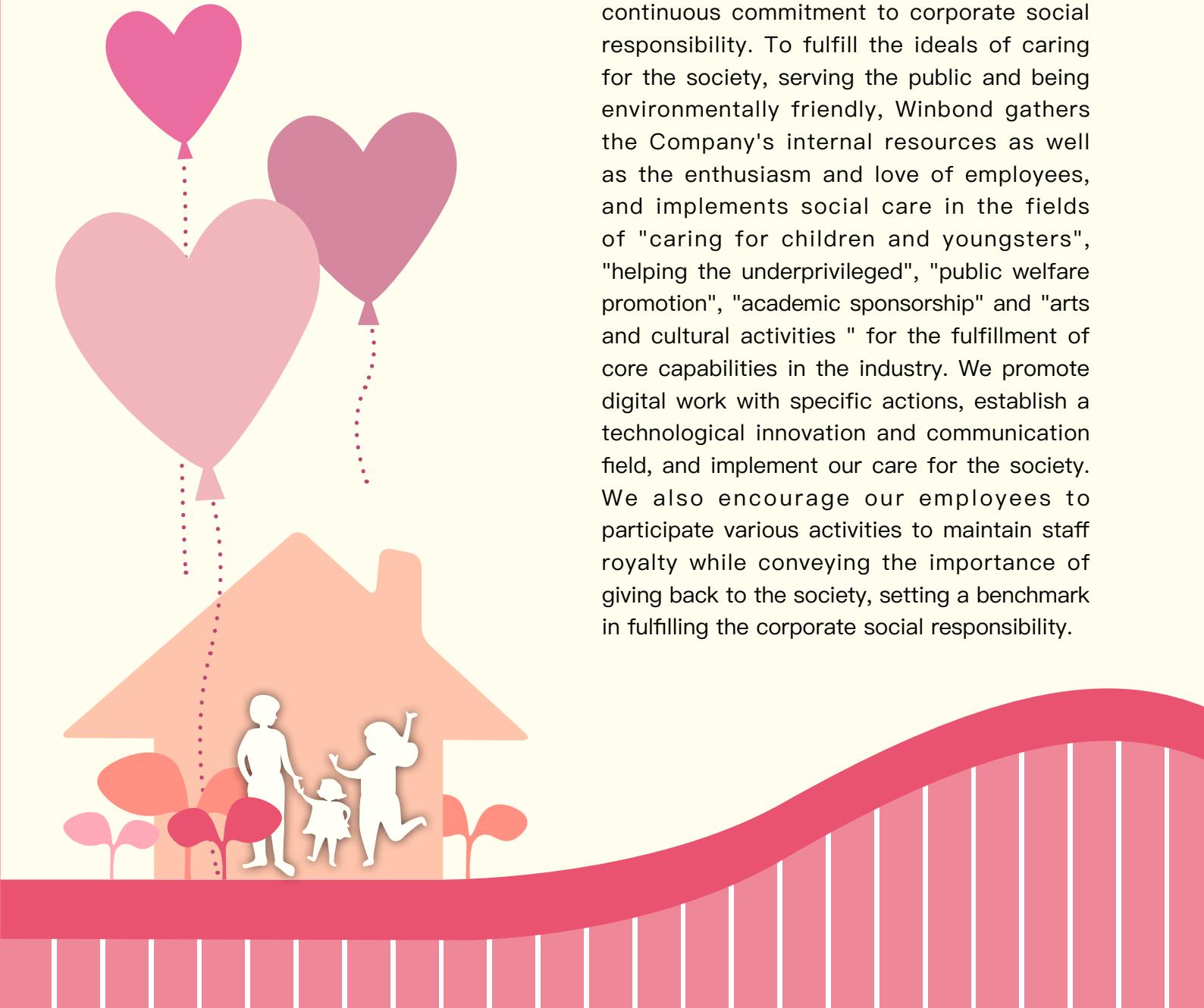
Organize the Christmas walking event to enhance
morale of the employees through the fun exercise
event.

VI. Common Good



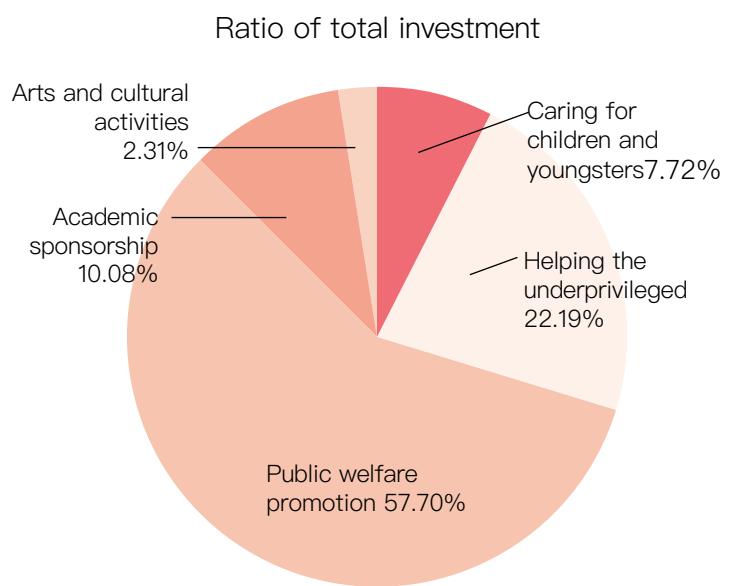
Summary of chapter and section

"Caring for the socially underprivileged, focusing on environmental sustainability, and fulfilling social responsibilities" is Winbond's continuous commitment to corporate social responsibility. To fulfill the ideals of caring for the society, serving the public and being environmentally friendly, Winbond gathers the Company's internal resources as well as the enthusiasm and love of employees, and implements social care in the fields of "caring for children and youngsters", "helping the underprivileged", "public welfare promotion", "academic sponsorship" and "arts and cultural activities" for the fulfillment of core capabilities in the industry. We promote digital work with specific actions, establish a technological innovation and communication field, and implement our care for the society. We also encourage our employees to participate various activities to maintain staff royalty while conveying the importance of giving back to the society, setting a benchmark in fulfilling the corporate social responsibility.



● The Resource Allocation for Societal Participations

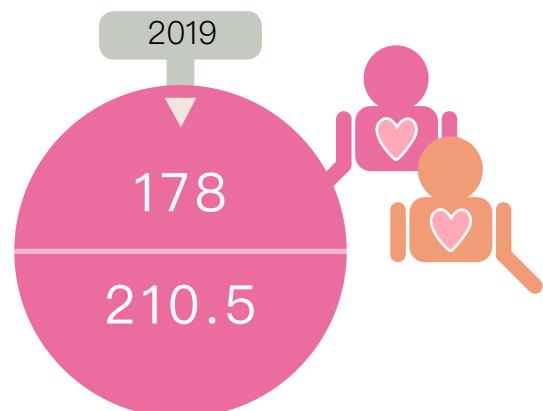
Type	Amount invested(Unit: NT\$)	Ratio of total investment
Caring for children and youngsters	1,003,536	7.72%
Helping the underprivileged	2,884,000	22.19%
Public welfare promotion	7,500,000	57.70%
Academic sponsorship	1,310,000	10.08%
Arts and cultural activities	300,000	2.31%
Total	12,997,536	100%



● Volunteer Investment Situation

Number of participants

[Input time] (Hours)



6.1 Caring for Children and Youngsters

6.1.1 Breakfast Program for Schoolchildren in Remote Areas

Winbond has launched a breakfast supply program for schoolchildren in remote areas by the Company's high-level executives since 2011. Through the non-profit organization foundation, donators voluntarily pledge for their donation of breakfast packages, which are delivered to primary school students in rural areas of Hsinchu and Taichung regions. We hope to maintain the basic needs for children's living and health by providing rural schools with breakfast resources and care, to help them build a strong body and mind to explore the world. In 2019, Winbond continued to sponsor NT\$ 800,000 as the funds for breakfast, paying attention to the schoolchildren's health for learning. Winbond also sent staff to understand the effectiveness of this service plan as a follow-up evaluation of this sponsorship program.



6.1.2 Volunteer Tutoring Services

Winbond's Momo Club has provided services for cleaning the environment and repairing facilities in the nurseries since the beginning of year 2010. Since September 2015, we helped the provision of additional long-term volunteer tutoring in Taichung Guangyin Nursery and Nantou RenAi Home, to teach the children with poor learning efficiency to learn and read. For the children whose learning situation is fair, the volunteers focus on strengthening the basic knowledge of the various subjects. In addition, interactive activities allow students to broaden their horizons by meeting the teachers from different industries and backgrounds. In 2019, there were 91 volunteers providing 118.5 hours of service hours.



6.1.3 Movie Appreciation for Children in the Nursery Homes

Winbond has invited the children in the nursery homes to enjoy movies in the cinema both during summer and winter vacations since 2010. We hope that such experience would allow the orphans or single-parent children to feel the warmth from the society while enhancing their comprehensive understanding of artistic values conveyed in the form of movies. In 2019, a total of 179 children from children's homes enjoyed the movie appreciation.



6.1.4 Family Day with Children from the Nursery Homes

Winbond has been holding the Winbond Family Day for nine consecutive years since 2011. We regularly conduct the activities to continue the spirit of public welfare as well as to set an example to encourage more companies to join us. We regularly invite institutions such as the Christian Herald Children's Home in Taichung and St. Francis Xavier Home for Children and Juvenile in Hsinhsu to set up stalls in our festival. The incomes are directly given to these nursery homes and institutions. We hope that through the Winbond Family Day event, our employees and their families can spread their love and hope to every corner in the world. This is also a great opportunity to educate our next generation and make the Winbond Family Day more meaningful. In 2019, Winbond invited 68 children from the institutions to join in this event.



6.2 Supporting the Disadvantaged

6.2.1 Nursery School Services

The Momo Club was established in 2010. Currently, the Momo Club has 50 volunteer members, including all levels of staff from high-level managers to basic-level workers, as well as employees' relatives and friends. The members of the club engage in services such as cleaning, collecting/donating invoices, and providing funds for replacement of damaged facilities in the children's homes, which not only helped solve the difficulty of shortage of manpower in the children's homes but also reduced their costs and expenses. In 2019, the Momo Club provided services with 46 participants and a total of 92 service hours.



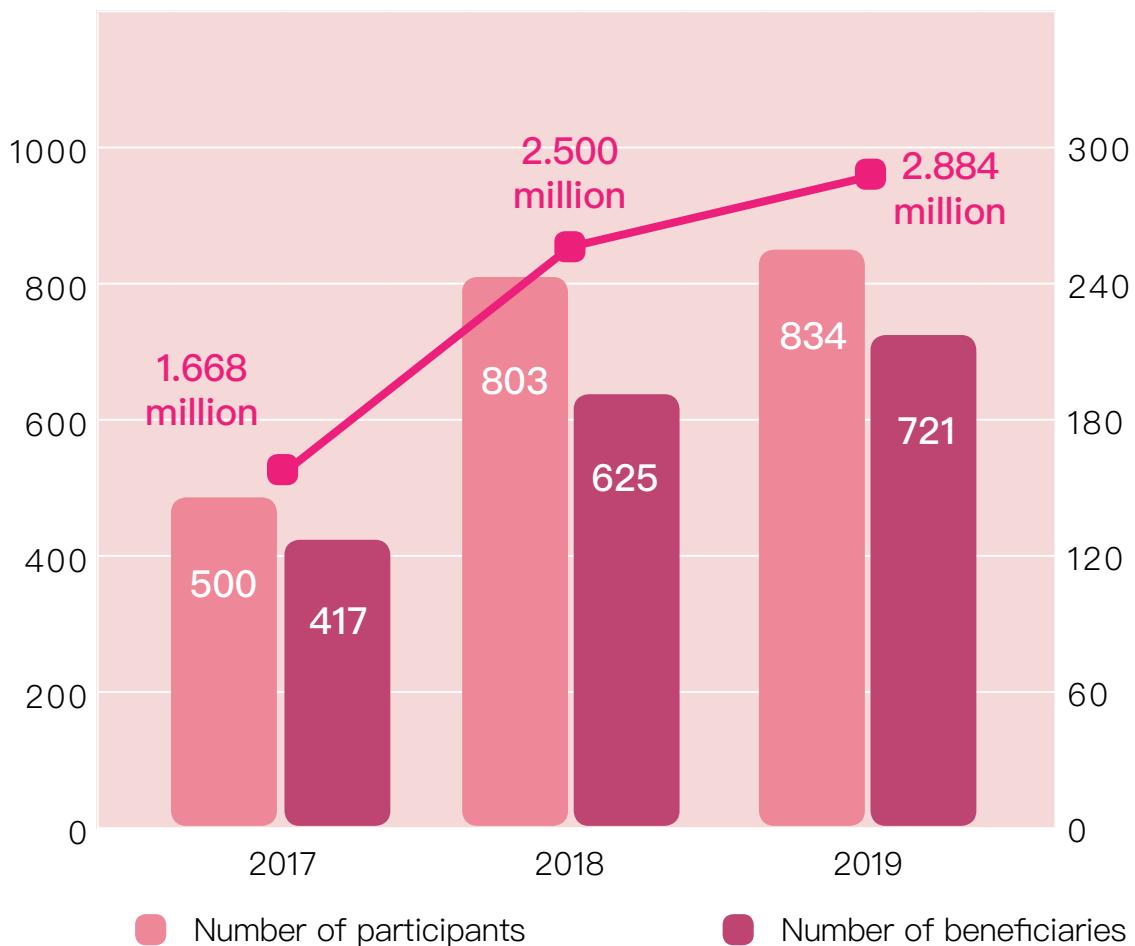
6.2.2 Fundraising for Scholarships

Based on the statistics of Taiwan Fund for Children and Families, the number of elementary school children applying for scholarship in Taiwan is about 14,000, in which 700 of them lack constant donation of NT\$ 2,000 per semester, amounting to annual demand of NT\$ 2.8 million. To help supplement educational resources for underprivileged schoolchildren to have stable school attendance, Winbond and Taiwan Fund for Children and Families cooperated to organize the fundraising for scholarships for underprivileged children activity and invited the employees to respond to this meaningful activity since 2017. From the president to the basic-level employees, employees at all levels actively participated in this event to help raising fund. In 2019, a total number of NT\$ 2.884 million was raised from 834 employees, providing 721 primary school children a whole year of support!

● The Status of Fundraising for Scholarships in the Past Three Years

Item	2017	2018	2019
Number of participants	500	803	834
Amount of donation	1,668,000	2,500,000	2,884,000
Number of beneficiaries	417	625	721

The Achievement of fundraising for scholarships in 2017–2019



6.2.3 Employee Emergency Relief

Behind every employee, there stands a family, and every family is a foundation of social stability. In the spirit of mutual assistance and friendship, Winbond provides assistance to employees or their dependents who are going through a difficult time because of emergency situations due to any circumstances that seriously impact normal livelihood of the family, such as disabling injury, death, accidents, etc. To alleviate their financial burden, Winbond offers employee emergency relief programs and emergency loans to ensure the employees and dependents' normal life and work can be maintained. In 2019, a total of 432 employees applied for emergency relief, with a total amount of NT\$ 511,050.

6.3 Public Welfare Promotion

6.3.1 Medical Public Welfare

Winbond and the Walsin Group's affiliated companies jointly donated NT\$50 million to Taipei Veterans General Hospital to purchase the most advanced equipment such as heavy particles and the cutting-edge medical equipment to help cancer patients receive better radiotherapy quality; we hope to set an example to encourage more groups to contribute to the public welfare, gather more societal strength to enhance our medical standards and benefit the citizens in Taiwan.



6.3.2 Blood Donation

"Donate a batch of blood to save a life"! Winbond has been cooperating with the "Taiwan Blood Services Foundation" to organize blood donation activities for 10 consecutive years, collecting nearly 1,536,000 cc of blood. The enthusiastic employees of Winbond have a good habit of donating blood on a regular basis which demonstrates a cultural philosophy of how much emphasis they put on life with practical actions to help with the domestic medical blood resources. A total of 5 blood donation events were held in 2019, with a total of 416 participants and 669 batches of blood were donated.



6.4 Academic Sponsorships

Winbond upholds its enthusiasm for the industry and continuously sponsors the holding of symposiums, to create new opportunities for technological exchanges in the integrated circuit industry. We conduct international technical conference such as the International Symposium on VLSI Technology, Systems and Applications (VLSI-TSA) for accelerating the upgrading of Taiwan's electronic information industry and strengthening the domestic and international exchange of science and technology. Furthermore, we also regularly sponsor a large-scale seminar for papers on scientific management organized by the Chinese Society for Management of Technology (CSMOT). Through this seminar, Winbond actively participates in activities for cooperation, communication and exchanges among academic, industrial, research institutions and government agencies.



6.5 Art and Cultural Activities

Winbond encourages the diversified development of artistic activities and practically promotes arts and cultural activities, integrating art with technology and culture, enhancing the quality of life with positive energy, and making humanities culture more prosperous. The "Shining Winbond with Rhythm of Happiness" art concert was held in 2019. A total of 803 people participated in two sessions of this event. The participants much enjoy the event as the music feast successfully warmed up everyone's hearts.



6.6 Highlights Project Love in Public Welfare Small Sapling Deep-rooted Project

Winbond continues its long-term care for the underprivileged children and youngsters. In 2018, we focused on the "little sapling program" and conducted the "support for children's skills and specialties in children's home" and "volunteer services in aboriginal communities" for the first time, to continue our care for those underprivileged children and provide them with support for their growth, just as the sunlight, air, and water required for the saplings to grow. In the future, we hope these little saplings can also make contributions to the society when they grow up to pass on the good deeds in the society.

6.6.1 Support for Children's Skills and Specialties in Children's Home

To help the underprivileged children in children's home to develop skills and specialties, Winbond has been supporting carpentry and Taiko courses organized by the "Taichung Christian Herald Children's Home" since 2018, with a total amount of NT\$ 256,451 for instructors and equipment fees and a total of 692 children beneficiaries in the past two years. By learning the carpentry and Taiko courses, children's concentration and patience have been significantly improved, and their self-identity and self-confidence have also been enhanced.



6.6.2 Volunteer Services in Aboriginal Communities

All of the small saplings are from the families in the communities. Through the cooperation with public welfare groups, we help with the construction of local communities in remote areas or plant organic crops to help the underprivileged families as well as boost the development in remote areas. Furthermore, through public welfare services in remote tribes, our employees not only help the Taiwan Fund for Children and Families in the development of community services for remote tribes but also jointly fulfill Winbond's corporate social responsibility.

In 2019, Winbond led its employees to the Fushan tribe for volunteer services, helped with the farmlands, replaced old bamboo fences and cleaned up the water tunnel, and experienced the tribe's hand-made cooking and ancient trail. Through meaningful activities, the employees had an opportunity to get to know the daily life and culture in the tribes. Despite the difficult process, all participants enjoyed this activity as they experienced in person the lack of resources and at the same time felt the enthusiasm and memories of social workers. The volunteer services also enhance employees' royalty and their recognition of the enterprise. The service activities were divided into two sessions, with a total of 41 participants, and the amount of donation was approximately NT\$ 61,235.



VII. Appendix

● Appendix I . GRI Standards Comparison Table General Disclosures

Disclosure Number	Disclosure	Chapter	Page	Remarks
GRI 101 : Foundation 2016 (GRI 101 does not include any disclosures)				
GRI 102 : General Disclosure 2016				
Organizational profile				
102-1	Name of the organization	1.1 Get to know Winbond	12	
102-2	Activities, brands, products, and services	1.1 Get to know Winbond	12	
102-3	Location of headquarters	1.1 Get to know Winbond	12	
102-4	Location of operations	1.1 Get to know Winbond	16	
102-5	Ownership and legal form	1.1 Get to know Winbond	12	
102-6	Markets served	1.1 Get to know Winbond	12	
102-7	Scale of the organization	1.1 Get to know Winbond	12	
102-8	Information on employees and other workers	5.1.1 Workforce structure	80	
102-9	Supply chain	3.4 Sustainable Management of Supply Chain	55	
102-10	Significant changes to the organization and its supply chain			No significant changes within the reporting scope
102-11	Precautionary Principle or approach	2.4 Risk Management	39	
102-12	External initiatives			Winbond did not undertake any external initiatives
102-13	Membership of associations	1.1 Get to know Winbond	14	
Strategy				
102-14	Statement from senior decision-maker	Message from the Chairman and CEO	6	
Ethics and integrity				
102-16	Values, principles, standards, and norms of behavior	2.3 Ethical Corporate Management	37	

Disclosure Number	Disclosure	Chapter	Page	Remarks
Governance				
102–18	Governance structure	2.1 Governance overview	33	
Stakeholder engagement				
102–40	List of stakeholder groups	1.3 Stakeholders Communication	23	
102–41	Collective bargaining agreements	5.3 Employee rights and remuneration	91	Winbond did not set up labor union and has no group agreement
102–42	Identifying and selecting stakeholders	1.3 Stakeholders Communication	23	
102–43	Approach to stakeholder engagement	1.3 Stakeholders Communication	23	
102–44	Key topics and concerns raised	1.4 Management of Material Topics	26	
Reporting practice				
102–45	Entities included in the consolidated financial statements	2.2 Operating Performancee	36	
102–46	Defining report content and topic Boundaries	About this Report	4	
102–47	List of material topics	1.4 Management of material topics	28	
102–48	Restatements of information			No restatements of information
102–49	Changes in reporting	1.4 Management of material topics	4	
102–50	Reporting period	About this Report	4	
102–51	Date of most recent report	About this Report	4	
102–52	Reporting cycle	About this Report	4	
102–53	Contact point for questions regarding the report	About this Report	4	
102–54	Claims of reporting in accordance with the GRI Standards	About this Report	4	
102–55	GRI content index	Appendix I . GRI Standards Comparison Table	120	
102–56	External assurance	Independent Third Party Assurance Statement	125	

12 Material Topics

Disclosure Number	Disclosure			Chapter	Page	Remarks
Quality management						
GRI 103 Management Approach 2016	103–1 Explanation of the material topic and its Boundary 103–2 The management approach and its components 103–3 Evaluation of the management approach	1.4 3.1	Management of material topics Product quality	29 44		
No applicable GRI major topic						
Ethical corporate management and legal compliance						
GRI 103 Management Approach 2016	103–1 Explanation of the material topic and its Boundary 103–2 The management approach and its components 103–3 Evaluation of the management approach	1.4 2	Management of Material Topics Ethical Corporate Management	29 32		
GRI 205 Anti-corruption 2016	205–3 Confirmed incidents of corruption and actions taken	2.3	Ethical Corporate Management	37	No incidents of corruption occurred	
GRI 206 Anticompetitive Behavior 2016	206–1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	2.3	Ethical Corporate Management	37	No anti-competitive behavior occurred	
GRI 307 Environmental Compliance 2016	307–1 Non-compliance with environmental laws and regulations	2.3	Ethical Corporate Management	37	No violated incident occurred	
GRI 419 Socioeconomic Compliance 2016	419–1 Non-compliance with laws and regulations in the social and economic area	2.3	Ethical Corporate Management	37	No violated incident occurred	
Customer privacy						
GRI 103 Management Approach 2016	103–1 Explanation of the material topic and its Boundary 103–2 The management approach and its components 103–3 Evaluation of the management approach	1.4 3	Management of Material Topics Excellent Quality	29 44		
GRI 418 Customer Privacy 2016	418–1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	3.2	Customer privacy and satisfaction	49	No customer complaints occurred	
Economic Performance						
GRI 103 Management Approach 2016	103–1 Explanation of the material topic and its Boundary 103–2 The management approach and its components 103–3 Evaluation of the management approach	1.4 2	Management of material topics Ethical Corporate Management	29 32		
GRI 201 Economic Performance 2016	201–1 Direct economic value generated and distributed	2.2	Operating Performance	36		

Disclosure Number	Disclosure		Chapter	Page	Remarks
Innovation management and patent					
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.4	Management of Material Topics	29
	103-2	The management approach and its components	3.3	Innovation and Patents	50
	103-3	Evaluation of the management approach			
No applicable GRI major topic					
Supply chain management					
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.4	Management of Material Topics	29
	103-2	The management approach and its components	3.4	Ethical Corporate Management	54
	103-3	Evaluation of the management approach			
GRI 308 Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	3.4.2	Supplier Audit	58
Corporate governance					
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.4	Management of Material Topics	29
	103-2	The management approach and its components	2	Ethical Corporate Management	32
	103-3	Evaluation of the management approach			
No applicable GRI major topic					
Risk Management					
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.4	Management of Material Topics	29
	103-2	The management approach and its components	2	Ethical Corporate Management	32
	103-3	Evaluation of the management approach			
No applicable GRI major topic					



Disclosure Number	Disclosure		Chapter	Page	Remarks
Product services and labeling					
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.4 3	Management of Material Topics Excellent Quality	29
	103-2	The management approach and its components			44
	103-3	Evaluation of the management approach			
GRI 417 Marketing and Labeling 2016	417-2	Incidents of non-compliance concerning product and service information and labeling	2.3	Ethical Corporate Management	37
	417-3	Incidents of non-compliance concerning marketing communications			No violated incident occurred
Occupational health and safety					
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.4 5	Management of Material Topics LOHAS Workplace	29
	103-2	The management approach and its components			78
	103-3	Evaluation of the management approach			
GRI 403 Occupational Health and Safety 2016	403-1	Occupational health and safety management system	5.4.1	Safety and Health Management Practices	101
	403-2	Hazard identification, risk assessment, and incident investigation			103
Training and education					
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.4 5	Management of Material Topics LOHAS Workplace	29
	103-2	The management approach and its components			78
	103-3	Evaluation of the management approach			
GRI 404 Training and Education 2016	404-1	Average hours of training per year per employee	5.2	Diverse Development Employee Rights and Remuneration	89
	404-3	Percentage of employees receiving regular performance and career development reviews			93
Wastewater and waste					
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	1.4 4.3	Management of Material Topics Water and Waste Management	29
	103-2	The management approach and its components			71
	103-3	Evaluation of the management approach			
GRI 306 Wastewater and waste 2016	306-1	Waste generation and significant waste-related impacts	4.3.1	Water Management Waste Management	72
	306-2	Management of significant waste-related impacts			74

● Appendix II . Independent Third Party Assurance Statement



By Royal Charter

INDEPENDENT ASSURANCE OPINION STATEMENT

Winbond Electronics Corp. 2019 Corporate Social Responsibility Report

The British Standards Institution is independent to Winbond Electronics Corp. (hereafter referred to as Winbond in this statement) and has no financial interest in the operation of Winbond other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of Winbond only for the purposes of assuring its statements relating to its corporate social responsibility (CSR), more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by Winbond. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to Winbond only.

Scope

The scope of engagement agreed upon with Winbond includes the followings.

1. The assurance scope is consistent with the description of Winbond Electronics Corp. 2019 Corporate Social Responsibility Report.
2. The evaluation of the nature and extent of the Winbond's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000 Assurance Standard (2008) with 2018 Addendum assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the Winbond Electronics Corp. 2019 Corporate Social Responsibility Report provides a fair view of the Winbond CSR programmes and performances during 2019. The CSR report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the Winbond and the sample taken. We believe that the 2019 economic, social and environmental performance information are fairly represented. The CSR performance information disclosed in the report demonstrate Winbond's efforts recognized by its stakeholders.

Our work was carried out by a team of CSR report assurers in accordance with the AA1000AS (2008) with 2018 Addendum. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that Winbond's description of their approach to AA1000AS (2008) with 2018 Addendum and their self-declaration in accordance with GRI Standards: Core option were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- a top level review of issues raised by external parties that could be relevant to Winbond's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.
- 11 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of key organizational developments.
- review of the findings of internal audits.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

A detailed review against the Inclusivity, Materiality, Responsiveness and Impact of AA1000AP (2018) and GRI Standards is set out below:

Inclusivity

This report has reflected a fact that Winbond has continually sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for economic, social and environmental information in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the Winbond's inclusivity issues.

Materiality

Winbond has established relative procedure in organization level, as the issues which were identified by all departments have been prioritized according to the extent of impact and applicable criterion for sustainable development of organization. Therefore, material issues were completely analyzed and the relative information of sustainable development was disclosed to enable its stakeholders to make informed judgments about the organization's management and performance. In our professional opinion the report covers the Winbond's material issues.

Responsiveness

Winbond has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for Winbond is developed and continually provides the opportunity to further enhance Winbond's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the Winbond's responsiveness issues.

Impact

Winbond has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. Winbond has established processes to monitor, measure, evaluate and manage impacts that lead to more effective decision-making and results-based management within the organization. In our professional opinion the report covers the Winbond's impact issues.

GRI Sustainability Reporting Standards (GRI Standards)

Winbond provided us with their self-declaration of in accordance with GRI Standards: Core option (For each material topic covered by a topic-specific GRI Standard, comply with all reporting requirements for at least one topic-specific disclosure). Based on our review, we confirm that social responsibility and sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported or omitted. In our professional opinion the self-declaration covers the Winbond's social responsibility and sustainability topics.

Assurance level

The moderate level assurance provided is in accordance with AA1000AS (2008) with 2018 Addendum in our review, as defined by the scope and methodology described in this statement.

Responsibility

The CSR report is the responsibility of the Winbond's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of Lead auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan



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