



GlobalWafers Co., Ltd.

2020

Corporate Social Responsibility Report



Contents

About This Report	1				
Sustainability Performance Overview	3				
Message from the Chairperson	9				
About GlobalWafers	11				
01 Stakeholder Engagement & Analysis	16	03 Innovation and Service	40	05 Friendly Workplace	62
1.1 Stakeholders Identification	17	3.1 Innovation Management	42	5.1 Employee Care	64
1.2 Stakeholder Engagement and Response	17	3.2 Product Quality	45	5.1.1 Human Resources	64
1.3 Identification and Analysis of Material Issues	18	3.3 Customer Services	46	5.1.2 Remuneration and Benefits	66
		3.4 Industry Supply Chain & Management	47	5.1.3 Talent Cultivation	67
				5.1.4 Human Rights	69
02 Governance and Operation	20	04 Sustainable Environment	50	5.2 Occupational Safety and Emergency Response	69
2.1 Sustainable Organization	23	4.1 Climate Change Risks and Opportunities	52	5.2.1 Safe Environment	69
2.2 Corporate Governance	24	4.1.1 Greenhouse Gas	52	5.2.2 Occupational Health and Safety Worker Training	72
2.2.1 Governance Structure	24	4.2 Waste Management	53	5.2.3 Emergency Response	73
2.2.2 Ethics and Integrity	27	4.3 Source Reduction	55	5.2.4 Occupational Disaster Management	75
2.2.3 Implementing Internal Audits	30	4.3.1 Raw Material Re-Utilization	55	5.2.5 Healthy Workplace	76
2.2.4 Regulation Compliance	31	4.3.2 Energy Management	55	5.3 Social Participation	80
2.3 Operation Performance	33	4.3.3 Water Resources Management	59		
2.4 Risks Management	34	4.4 Pollution Prevention	61	Annex	
				GRI Guideline Index	82
				Independent Assurance Statement	87

About This Report

Report Axis

GlobalWafers Co., Ltd. (hereinafter referred to as GlobalWafers) is a professional silicon wafer supplier and manufactures products for integrated circuit and power electronics applications. In response to global climate change and latest development trends in corporate social responsibilities (CSR), GlobalWafers has taken the initiative to compile a CSR report. Based on long-term in-depth interactions with local communities and engagement with stakeholders, GlobalWafers discloses in the report relevant information on material issues regarding the four aspects of corporate governance, economy, environment, and society, as well as execution & improvement results, in addition to presenting the future vision and goals in terms of sustainable development.

Report Editing and Final Draft

GlobalWafers compiles and organizes relevant information and edits this report through the following procedures.

- **Planning, Compiling and Organizing**

Principal members of the CSR task force (comprising the President's Office and the Health and Environment, Health & Safety) are in charge of the overall planning, information compilation & organization, communication & integration and editing & revisions.

- **Editing Procedures, Review and Final Draft**

After members of the Corporate Sustainable Development Committee have collected all relevant information and written the report and have the data in the report verified by the heads of all departments, it is then submitted to the President (Chairperson of the Corporate Sustainable Development Committee) for review, then finalized for publishing.

Reporting Standards

The contents and structure of this report primarily follow the core indicators outlined in the Sustainability Reporting Guidelines released by the Global Reporting Initiative (GRI). In addition, this report is also formulated pursuant to the Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies as well as the implementing recommendations provided by the Task Force on Climate-related Financial Disclosures (TCFD). Key issues of concern to stakeholders are disclosed and responded to in relevant chapters based on materiality analysis results.



Report Boundaries and Reporting Period

This report is the 4th CSR report issued by GlobalWafers, which covers the period and scope as follows:

Publication Time: June 2021

Coverage Time: January 1, 2020 to December 31, 2020

Previous Publication Date: June 2020

Reporting Scope:

The scope of coverage for all GlobalWafers' operations and production bases based on performance are described as follows:

Economic Performance:

Covers all operations and production locations of GlobalWafers including GlobalWafers Headquarters, GlobalWafers Zhunan Plant, Taisil Branch, GlobalWafers Japan Co., Ltd., MEMC Japan Ltd., MEMC Korea Company, Kunshan Sino Silicon Technology Co., Ltd., MEMC Electronic Materials Sdn. Bhd., GlobiTech Incorporated., MEMC LLC, MEMC Electronic Materials S.p.A., Topsil GlobalWafers A/S, GlobalWafers Singapore Pte. Ltd., Financial data is verified by KPMG in accordance with International Financial Reporting Standards (IFRS), and the calculation unit is New Taiwan Dollar (NTD).

Environmental Performance:

All production bases except the Singapore office are included in the scope of environmental performance disclosure, and the statistics are collected by the responsible departments.

Social Performance:

Except for the staff statistical analysis covering the Singapore office, all other performance coverage is consistent with environmental performance, which is compiled by the respective responsibility departments. However, the scope of disclosure will be noted in the internal statistics since the data of some overseas bases are not yet complete.

GlobalWafers has published its CSR report each year, and offers electronic files on the GlobalWafers' website at the [Stakeholder Area](#) for download and review.

Report Assurance

GlobalWafers' Sustainability Development Committee is verified by a third-party independent verification agency in order to strengthen the GRI Standards compliance for this report while enhancing the transparency and credibility of the sustainable management information. This report has been verified by DNV Business Assurance Co., Ltd. to comply with the GRI Standards' core compliance options as well as the DNV VeriSustain medium assurance level verification standard requirements. The verification statement is detailed in the appendix.

Contact Window

Should you have any comments or suggestions regarding this report, please feel free to contact us in one of the following ways:

GlobalWafers Co., Ltd.

Contact Person: Spokesperson Mr. Wei-Wen Chen, Vice President

Tel.: 03-577-2255 # 2280

Deputy Spokesperson: Director Pao-chuan Chen

Tel.: 03-578-3131 # 1361

Address: Hsinchu Science Park, No. 8, Industry East 2nd Road, East District, Hsinchu City, 300

E-mail: GWCIR@sas-globalwafers.com

Website: <https://www.sas-globalwafers.com/en/home-2/>

Sustainability Performance Overview

Aspects	Material topics	United Nations Sustainable Development Goals (SDGs)	2021 Target goals	2020 Target goals	2020 target Achieve status	In 2021 Short-term goals	2022-2025 Medium-term goals (2~5 years)	2026-2030 Long-term goals (6~10 years)
Economic Aspect	Corporate governance		Maintain ranking in the top 5% of all listed OTC companies	Maintain ranking in the top 5% of all listed OTC companies	Once again ranked the top 5% among all listed OTC companies in terms of corporate governance appraisal according to the 6th Taiwan Stock Exchange corporate governance evaluation results	Achieved	Continue to maintain ranking in the top 5% of all listed OTC companies for corporate governance appraisal	—
	Ethics & Integrity / Anti-corruption		Occurrence of unethical or dishonest Incidents	No unethical or dishonest incident has occurred	No unethical or dishonest incident has occurred throughout the year	Achieved	Continue to maintain zero occurrence of unethical or dishonest incident	—
			Continuous profit	Continuous profit	3rd highest annual revenue in history, EPS reached NT\$30.11 per share	Achieved	Continue to make profits & maintain a good financial structure (for sustainable growth)	—
	Operational performance		Maintain a good financial structure	Maintain a good financial structure	The Company's excellent operating capacity has also been awarded the long-term issuer's credit rating of "twAA-", short-term issuer's credit rating of "twA-1+", and the rating outlook of "stable" by Taiwan Ratings.	Achieved	Continue to maintain the Company's long-term issuer's credit rating of "twAA-" and short-term issuer's credit rating of "twA-1+" by Taiwan Ratings.	—
	Regulation compliance		Complete inventory and improvement of internal regulations compliance for all departments in Taiwan	Complete inventory and improvement of internal regulations compliance for all departments in Taiwan	Inventory for internal regulations compliance in Taiwan throughout the year has not been completed due to the large amount of regulations and projects.	Not achieved	Continue to maintain inventory and improvement of internal regulations compliance for all Company departments in Taiwan	—
Environmental Aspect	Energy resource consumption and greenhouse gas emissions reduction		Electricity unit energy consumption reduction $\geq 1\%$	Power consumption per unit in Taiwan 1% reduction	1.2% reduction in energy consumption per unit of electricity in Taiwan	Achieved	Compared to 2019: Electricity unit energy consumption reduction $\geq 1\%$	Compared to 2019: Electricity unit energy consumption reduction $\geq 5\%$
			Greenhouse gas unit emission reduction $\geq 1\%$	A 1% reduction in greenhouse gas emissions per unit in Taiwan	A 1.2% reduction in greenhouse gas emissions per unit in Taiwan	Achieved	Compared to 2019: Greenhouse gas unit emission reduction $\geq 1\%$	Compared to 2019: Greenhouse gas unit emission reduction $\geq 5\%$
			Water unit consumption reduction $\geq 1\%$	—	—	—	Compared to 2019: Water unit consumption reduction $\geq 1\%$	Compared to 2019: Water unit consumption reduction $\geq 5\%$
	Pollution prevention		Notification of abnormal incidents to the competent authority Less than 1 incident	Notification of abnormal incidents to the competent authority ≤ 1 incident	No pollution prevention related abnormal incident	Achieved	Continue to maintain zero pollution prevention related abnormal incident for the Company	—
	Waste control		Waste management (recycling and reuse treatment ratio for the total waste volume) cumulatively increased to 80%	Waste reduction > 2%	Discharge per unit of waste in Taiwan 7.4% reduction	Achieved	Compared to 2019: Waste management (recycling and reuse treatment ratio for the total waste volume) cumulatively increased to 80%	Compared to 2019: Waste management (recycling and reuse treatment ratio for the total waste volume) cumulatively increased to 85%
							Compared to 2019: Waste management (recycling and reuse treatment ratio for the total waste volume) cumulatively increased to 90%	

Aspects	Material topics	United Nations Sustainable Development Goals (SDGs)	2021 Target goals	2020 Target goals	2020 target Achieve status	In 2021 Short-term goals	2022-2025 Medium-term goals (2~5 years)	2026-2030 Long-term goals (6~10 years)	
Social Aspect	Employee education & training	4 社會教育	Annual training course trainee number growth \geq 3%	Annual training course attendance rate growth \geq 3%	Annual education training attendance rate -14.71%	Not achieved	Annual training course trainee number growth \geq 3%	—	
			—	CPR training and participant number reached \geq 50%	CPR training participants throughout the year reached 19.35%	Not achieved	—	—	
			100% of new recruits complete the workplace bullying and sexual harassment prevention education and training within 30 days of employment	100% of new recruits complete the workplace bullying and sexual harassment prevention education and training within 30 days of employment	100% of new recruits complete the workplace bullying and sexual harassment prevention education and training within 30 days of employment	Not achieved	Continue to maintain the new recruit workplace bullying and sexual harassment prevention education and training within 30 days of employment, and achieve the completion rate of 100%		
	Friendly workplace (including issues like occupational health and safety, occupational health)	3 良好健康 4 社會服務	—	The number of public injury accident did not increase	No public injury accident occurred in Taiwan throughout the year	Achieved	—	—	—
			8 勞工權益	0 Work-related ill health	—	—	—	Maintain zero Work-related ill health for the Company	—
			0 major occupational disaster	0 major occupational disaster	No major occupational disaster occurred throughout the year	Achieved	Maintain zero major occupational disaster for the Company	—	
			5 性別平等	0 human rights related dispute	0 human rights related dispute	No human rights related dispute occurred throughout the year	Achieved	Continue to maintain zero human rights related dispute for the Company	—
			Reduce labor salary dispute	Reduce labor salary dispute	Zero labor salary dispute occurred throughout the year	Achieved	Continue to maintain zero labor salary dispute for the Company < NT\$1 million	—	
	Product quality and customer satisfaction	9 產業、商業及消費者 17 氣候行動	Continuously improve quality and focus on product development to enhance customer satisfaction Satisfaction Level	Continuously improve quality and focus on product development to enhance customer satisfaction	Annual customer satisfaction > 80 points and accounted for 82%, between 80 and 70 points and accounted for 16%	Achieved	Continue to improve quality and focus on product development for the Company in order to enhance customer satisfaction	—	

Economic Aspect

Corporate Governance KPI

Information disclosure and corporate governance appraisal and rating of TWSE listed companies

- Ranking in the top 5% of all listed OTC companies in the 7th corporate governance appraisal 2020
- Ranking in the top 5% of all listed OTC companies in the 6th corporate governance appraisal 2019
- Ranking in the top 5% of all listed OTC companies in the 5th corporate governance appraisal 2018
- Ranking in the top 20% of all listed OTC companies in the 4th corporate governance appraisal 2017
- Ranking in the top 20% of all listed OTC companies in the 3rd corporate governance appraisal 2016

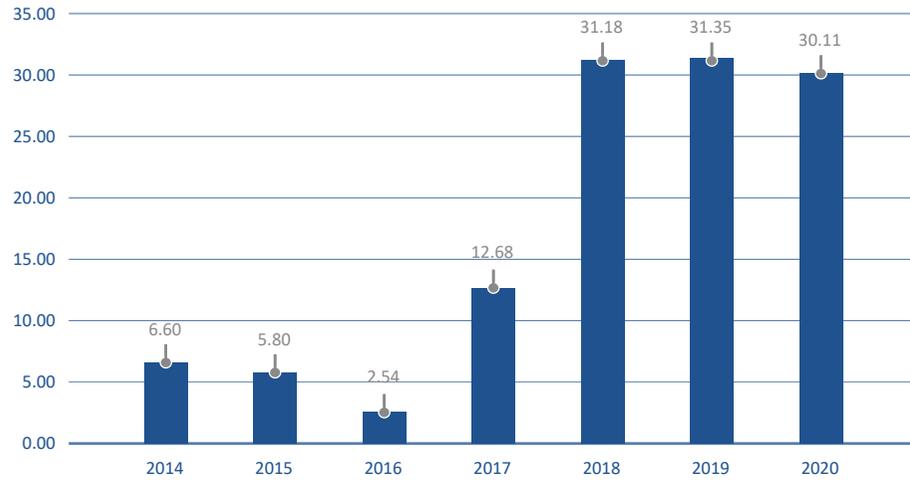
Economic Performance KPI

Operating Revenues



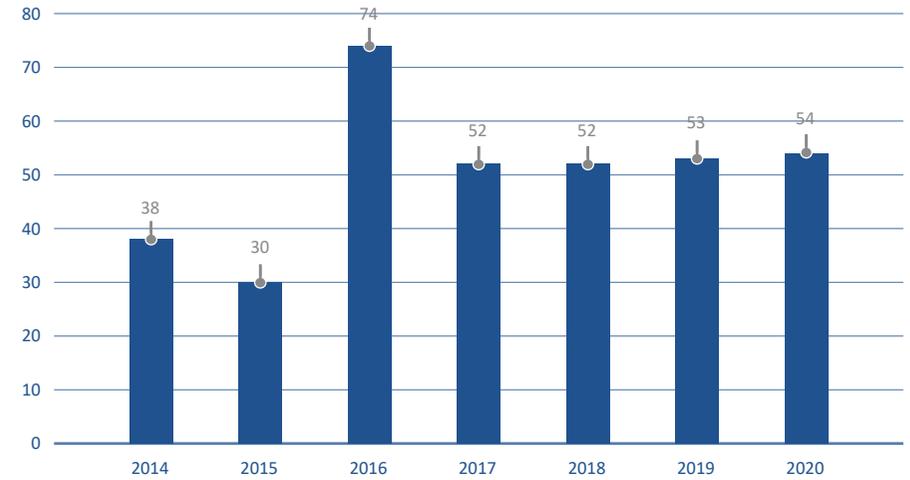
Operating Revenue EPS

Unit: NTD



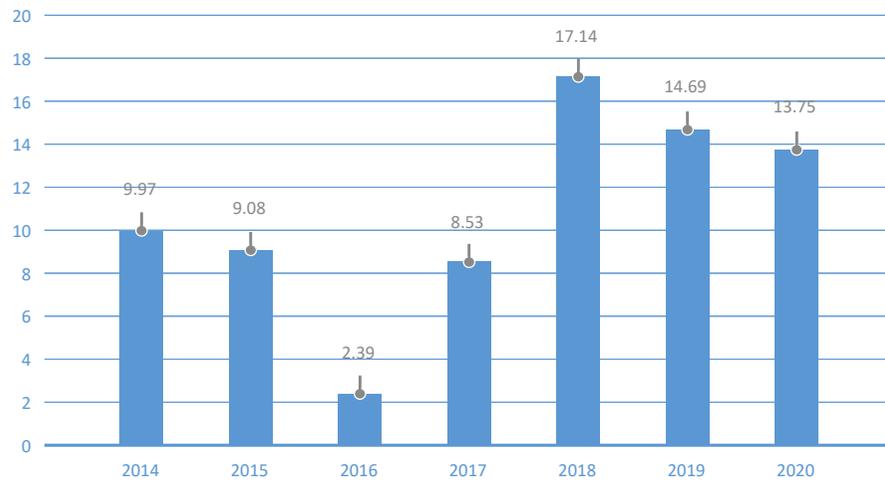
Debt to Asset Ratio

Unit : %



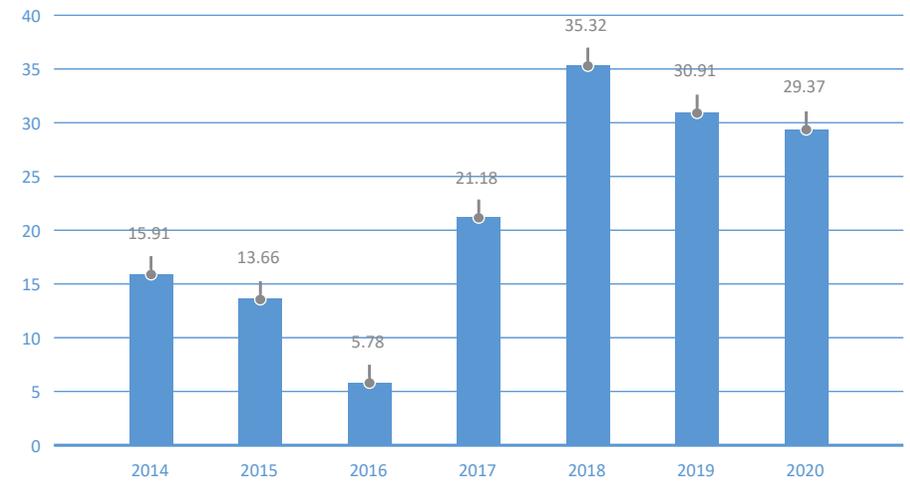
Return on Asstes

Unit : %



Return on Equity

Unit : %

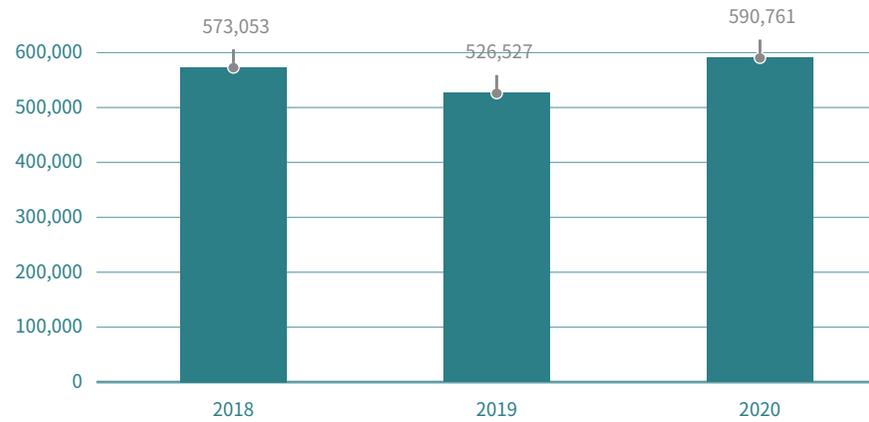


Environmental Aspect

Environment Performance KPI

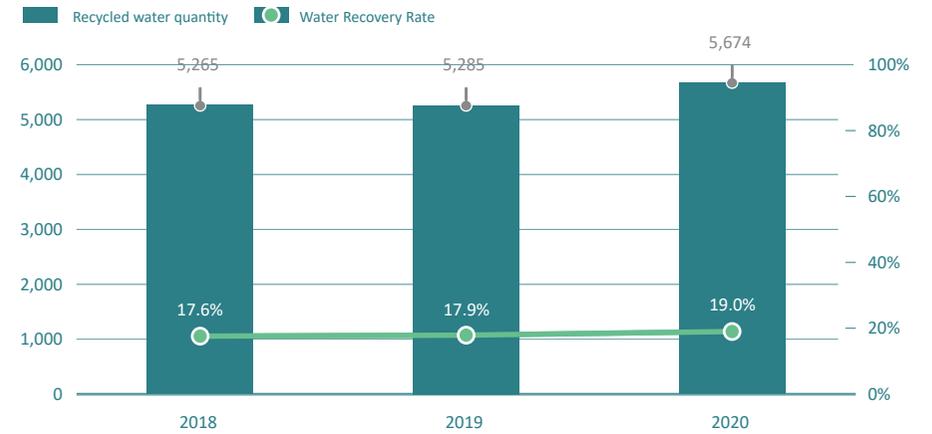
Carbon Dioxide Equivalent Emissions (Category 1~2)

Unit : ton CO₂e / year



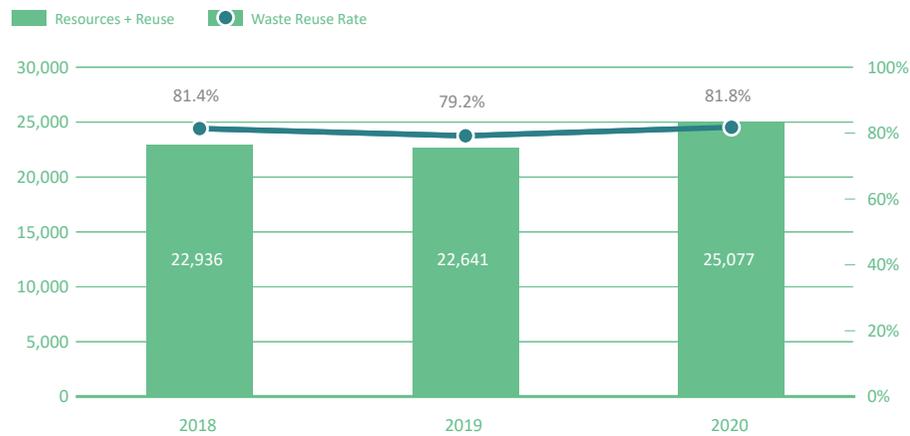
Water Recovery

Unit : KM³



Reused Recycled Waste

Unit : Mertic ton

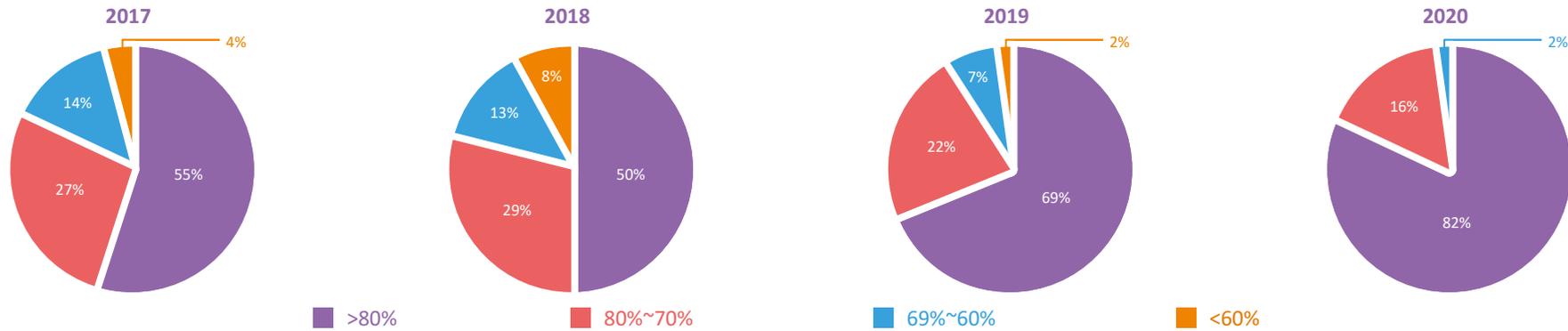


Social Aspect

Social KPI

Customer Satisfaction Level

Unit : %



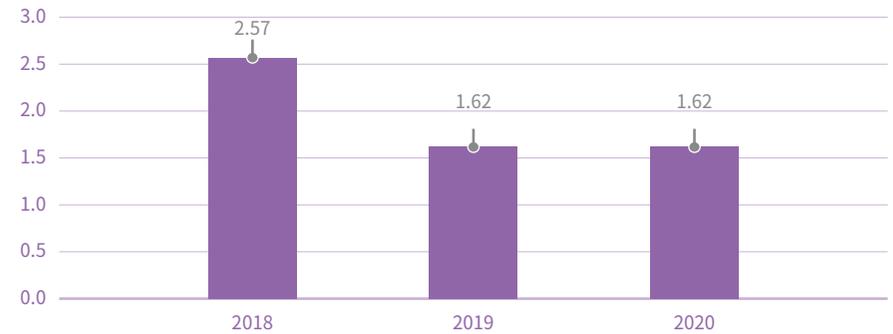
Average Training Hours per Employee

Unit : Average Training Hours



Disabling Frequency Rate

Unit : FR



Human Rights Complaints

2.59% Reduce Electricity Consumption

By practicing energy saving measures, global electricity conservation unit electricity consumption is reduced by 2.59% compared to that of 2019

T-REC Renewable Energy Certificate

Zhunan Plant has obtained the renewable energy certificate

50% Water Recovery Rate

Taiwan's total water recycling rate for 2020 has reached 50%

2,522.5metric tons Energy Conservation Plan

Energy conservation implementation plan for the Taiwan plants achieved 4,956,153kWh; which is equivalent to reducing carbon emissions by 2,522.5 metric tons

31,876 metric tons Reduce Water Consumption

By practicing water saving measures, global water-conservation measures project has achieved 31,876 metric tons in water conservation

81.77% Industrial Waste Resources Reuse

Global industrial waste resources reuse rate has reached

111 metric tons Industrial Waste Output Reduction

Taiwan region industrial waste decreased by 111 metric tons compared to that of 2019

3rd Largest Silicon Wafer Manufacturer Worldwide
Semiconductor silicon wafer market share

NT\$587,000 Social Welfare

Implemented in sending care to rural areas, charity donations, and health and epidemic prevention plans for children and youth from disadvantaged families

5% Corporate Governance Appraisal

Rank in the top 5% of all listed OTC companies for corporate governance appraisal



Message from the Chairperson

2020 is surely an unforgettable year for the entire world. The spread of COVID-19, the national border lock-downs, and the dance of life and death all occurred in a blink of an eye. During these turbulent times, we gained a profound understanding that societies are not composed of mere individuals, but by densely intertwined network of groups. The darker the hour, the brighter the brilliance of goodness shines. In addition to improving operational performance, GlobalWafers further realizes that it can use the strength of the enterprise to take care of its employees and their families in every way possible.

During the epidemic period, GlobalWafers has actively kept abreast of the latest information, conducted risk assessments, formulated countermeasures, strengthened epidemic prevention efforts, implemented employee health monitoring, strengthened health advocacy, provided real-time epidemic information from different countries, arranged for employees to work in shifts, and reduced the number of people gathered at confined spaces in order to establish a comprehensive epidemic prevention and health network for each employee.

Although GlobalWafers' headquarter is in Taiwan where the epidemic is relatively less severe, many of our overseas subsidiaries are located in Asia, Europe, and the Americas where the epidemic is quite severe. We have mobilized emergency supplies by taking full advantages of our group network and transport channels, shared our epidemic fighting experience and practices, and donated an ambulance to the Red Cross (Italian branch) at the epicenter of the epidemic. Even if countries have closed their borders to control the spread of COVID-19, we still hope to deliver warmth and care that cannot be stopped by border lockdowns.

In terms of environmental sustainability, GlobalWafers adheres to the principle of "responsible growth." The goal is to achieve a balance between economic development and the natural environment while increasing profits, and improve the production process to reduce waste output while pursuing product innovations. By promoting green products and green production through process design and technology improvement, we can reduce raw material and resource consumption, lower pollution emissions from the source, decrease operating costs, and minimize the impact on the environment. In addition, we have also monitored and measured high-energy consumption equipment, proposed action improvement plans, regularly tracked the improvement measure performances, and promoted energy conservation internally in order to achieve continuous improvement, conserve energy, reduce carbon production, lower power consumption, and improve energy efficiency.

Our efforts and achievements include:



2020 power conservation rate by domestic and foreign plants > 1%



2020 greenhouse gas emissions reduction rate > 1%



2020 waste output reduction rate > 2%



Abnormal event(s) reported to the competent authority In 2020 ≤ 1 case



GlobalWafers' Hsinchu and Zhunan plants both won the 2020 Annual Waste Reduction and Circular Economy Outstanding Enterprise Award in 2020/09



Won a trophy for its enthusiastic assistance in handling the 2020 Hsinchu Science Park Industrial Safety and Environmental Protection Month Event in 2020/09



Won the Gold Tower Award and the Silver Tower Award for the "2020 Taiwan Continuous Improvement Competition" held by the Corporate Synergy Development Center in 2020/12



GlobalWafers actively expands its green footprint through its solar power plants. By the end of 2020, its site had a cumulative solar capacity of 7.6MW and generate 8.71 million kWh electricity, which reduced CO2 emissions by 4,433 tons per year and equaled to planting 402,956 trees. (equaled to the carbon absorption of 11.37 Da-An Forrest Parks).

In terms of social care, GlobalWafers encourages employees to show care, give back what they can, interact with the society, help the disadvantaged groups, and fulfill corporate social responsibilities. In Taiwan, we have actively participated in the remote area dream realization project, sponsored various social welfare activities held by disadvantaged children and public welfare organizations, and practiced the “taken from society, give back to society” corporate citizenship concept. We have also arranged a series of environmental protection activities to turn publicity slogans into actual practice. The goal is to plant small green seeds in the hearts of colleagues, cultivate thanksgiving from the heart, and turn them into new opportunities to readjust their attitudes towards life.

Our actions of care include:



2020/08 Nanliao Fishing Port beach cleanup event



2020/09 Send care and material donation to remote villages



2020/10 Donate an ambulance to the Red Cross, Italian branch



2020/11 Hsinchu Family Support 2020 Winter Warmth Kindergarten Party



2020/11 Miaoli Longfeng Fishing Port beach cleanup and forest protection event

In addition to the external contributions, we also focus on the cultivation of sincerity.

GlobalWafers is a big family with bases all over the world, and many of its bases at home and abroad have profound cultural heritage. Through intimate cooperations, colleagues can ignite different sparks of wonderful and diverse perspectives. Despite coming from different countries, we share the same core values - **People, Integrity, Passion, Excellence, and Innovation**. We firmly believe that by adhering to the people-first principle, maintain honesty and integrity, devote enthusiasm to life and work, and make unremitting efforts; we will naturally outperform the competitors. The different horizon level will also bring an endless source of creativity, which will eventually transform into innovative technologies that can change the future.

For GlobalWafers, our customers are our most precious partners. Our vision is to be the preferred partner in your technology journey. We hope to become your preferred partner throughout the endless journey of knowledge and innovation. Our mission statement is “one global family committed to providing sustainable solutions for the semiconductor industry.” Our goal is to provide customers with green and sustainable solutions via the concerted efforts from our global bases.

Global Family, Global Solutions! This is our unchanging objective and target. Colleagues at home and abroad are closely connected like family members, and will concentrate their efforts to provide customers with comprehensive and cross-regional solutions.

GlobalWafers will remind itself not to forget the social spirit while increasing profitability, and maintain the cycle of altruism while expanding its operating scale. Each person is a starting point of something wonderful, and the power of the enterprise can magnify care and warmth to build a sustainable and harmonious society.

Chairperson and CEO of GlobalWafers

徐秀蘭



About GlobalWafers

Company Profile

Established in October 18, 2011 and headquartered in Hsinchu Taiwan, GlobalWafers Co., Ltd. specializes in 3" to 12" silicon wafer manufacturing. Product applications have extended through logic, memory, power management, automotive, IT, and MEMS. It is the world's third largest semiconductor silicon wafer supplier and the largest non-Japanese semiconductor silicon wafer supplier. GlobalWafers, previously the Semiconductor Business Unit of Sino-American Silicon Products Inc. (SAS) was separated into an independent company from SAS in 2011.

In 2012, GlobalWafers acquired Covalent, a subsidiary of Covalent Materials Corporation that ranked number 6 in the world. In 2016, GlobalWafers successfully acquired Denmark's Topsil Semiconductor Materials A/S (hereafter "Topsil") and SunEdison Semiconductor Limited (hereafter "SunEdison") to become the 3rd largest wafer supplier worldwide. Since then, its product field has successfully advanced from CZ to large-size epiwafers, polished silicon wafers, silicon-on-insulator wafers, annealed silicon wafers, and FZ semiconductor wafers. GlobalWafers has also combined its top-notch operating model, market advantages, diversified product supply, as well as the global bases and product R&D capabilities of SunEdison to establish a more comprehensive product line with a total of 17 operation and production bases that are strategically distributed throughout 9 countries in Asia, Europe, and the United States. GlobalWafers has an absolutely comprehensive product combination to accelerate the development of new technologies and new products and to continue its focus on serving customers so as to create more value for customers, shareholders and staff members.

Product Portfolio	Wafer Diameter (Inches)				End-applications				
	<6"	6"	8"	12"					
Annealed Wafer			✓	✓	Memory	LCD Driver	Analog/Logic IC		
EPI Wafer (Epitaxial)	✓	✓	✓	✓	Power Device	Automobile	MPU/MCU	CMOS Image Sensor	
Polished Wafer	✓	✓	✓	✓	Communication	Power Device	Analog/Logic IC	Memory	
Diffused Wafer	✓	✓			Automobile	Electricity	Aerospace		
Non-polished Wafer	✓	✓			Discrete Device				
FZ Wafer (Float Zone)	✓	✓	✓		Medical Equipment	Wind Turbine	High Speed Rail	Automobile	
SOI Wafer (Silicon on Insulator)	✓	✓	✓	✓	High Voltage Power	MEMS Sensor	CMOS	RF Device	Photonics
SiC Wafer (Silicon Carbide)	✓	✓			Automobile	High Voltage Power	High Speed Rail	Wind Turbine	
GaN/Si, GaN/SiC (Gallium Nitride)	✓	✓	✓		Solar Inverter	Power Supplies	RF Power		

GlobalWafers has improved its operating performance by strengthening its resource integration benefits via strategic industry alliances and foreign reinvestments in order to improve business performance, actively advance and gain a better position, and expand its business management deployment with the group's business model that focuses on shareholder equity maximization. GlobalWafers will continue to cultivate its existing core technologies, further implement product diversification and enterprise diversification operations, and actively increase its global market share in order to advance its global leading position in the wafer manufacturing field.

Basic Info of GlobalWafers



GlobalWafers Co., Ltd.

	Company Name	GlobalWafers Co., Ltd.
	Date of Establishment	October 18, 2011
	Capital	NT\$4.373 billion
	Main Product and Technology	3-inch to 12-inch Silicon Wafer
	No. of Employees*	Taiwan: 1,592 employees; Overseas: 5,334 employees
	Chairperson & CEO	Doris Hsu / Hsiu-Lan Hsu
	President	Mark Lynn England
	Headquarters	Hsinchu Science Park, No. 8, Industry East 2nd Road, East District, Hsinchu City, 300
	Countries of Operation	Taiwan, China, Japan, South Korea, Malaysia, United States, Italy, Denmark, Singapore

*The number of employees is based on the December 31, 2020 statistical data

Operation & Manufacturing Bases

GlobalWafers is headquartered in Hsinchu with global locations in Taiwan, China, Japan, South Korea, Malaysia, the United States, Italy, Denmark, and Singapore. At present, its products are mainly sold in Asia, Europe, and the Americas. GlobalWafers has always focused on improving the performances of key power component materials, especially for the technological development of silicon carbide (SiC) wafers. Its objective is to contribute to environmental protection by improving energy conservation and carbon reduction.



01 Taiwan GlobalWafers Headquarters GlobalWafers Zhunan Plant GlobalWafers Taisil Branch	02 China Kunshan Sino Silicon Technology Co., Ltd.	03 Japan GlobalWafers Japan Co., Ltd. MEMC Japan Ltd.
04 South Korea MEMC Korea Company	05 Malaysia MEMC Electronic Materials Sdn. Bhd.	06 US GlobiTech Incorporated. MEMC LLC
07 Italy MEMC Electronic Materials S.p.A.	08 Denmark Topsil GlobalWafers A/S	09 Singapore GlobalWafers Singapore Pte. Ltd.

Note: To enhance operating efficiency, Taisil Electronic Materials Corp. has been merged as the Taisil Branch in February 2020



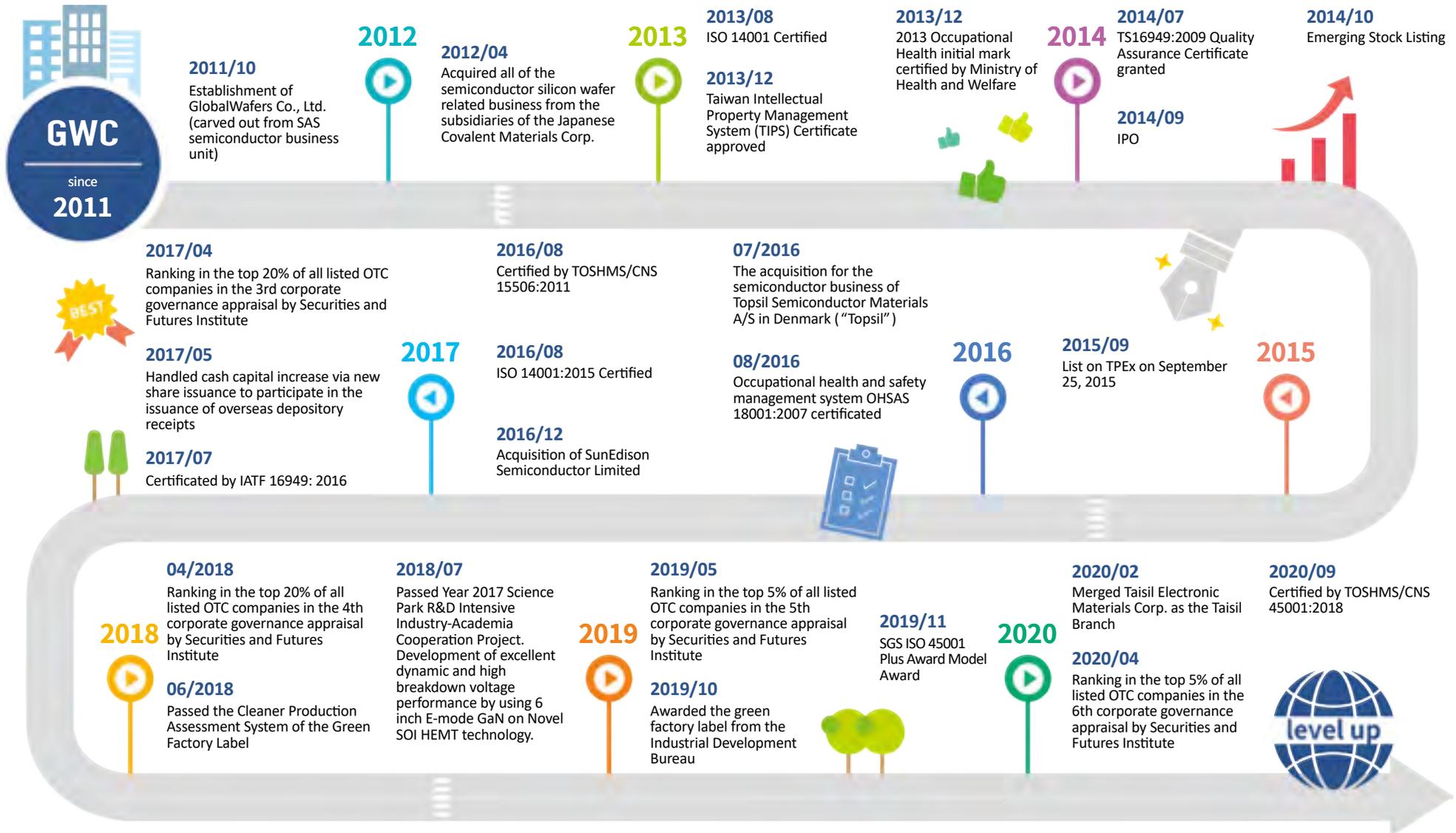
Participation in External Associations

Association/organization	Participant	Member	Member
Taiwan Semiconductor Industry Association		●	
High Power Device Application and Research Alliance		●	
The Allied Association for Science Park Industries		●	
The Institute of Internal Auditors-Chinese Taiwan		●	
Computer Audit Association		●	
Japan Society of Newer Metals	●	●	
Malaysian Employers Federation (MEF)		●	
Federation of Malaysian Manufacturers (FMM)		●	
National Institute of Occupational Safety & Health (NIOSH)		●	
The Korea Chamber of Commerce & Industry		●	
Korea Environmental Preservation Association		●	
Korea Industrial Safety Association		●	
Korean Nurses Association		●	Director of the Chungnam Province
Korea Fire Safety Association		●	

Association/organization	Participant	Member	Member
Local Industrial Association		●	
Gateway Society of Haz Mat Managers		●	
Local Industrial Park Association	●	●	
Industrial Environmental Management Association		●	
Occupational Safety and Health Association		●	
Industrial Water Management Association		●	
Industrial Wastewater Management Association		●	
Fire Safety Association		●	
LEPC - Local Emergency Planning Commission		●	
Sherman Safety Leaders Forum		●	
Sherman HR Networking Team		●	

Company Chronology

Development Profile



Award Record

2011
 2011/12
 Granted Taiwanese Entrepreneur President Excellence Award from 29th Chinese Professional Management Association

2012
 2012/09
 2012 Parent company Sino-American Silicon's Covalent acquisition is granted 2012 Most Representative Award by MAPECT Taiwan.

2013
 2013/12
 Certified Healthy Work Environment

2016
 2016/06
 Recognized for excellent performance in energy conservation by Bureau of Energy, MOEA

2016
 2016/08
 TOSHMS/CNS 15506:2011 Certified (see the folder for the original picture file)

2016
 2016/08
 ISO 14001:2015 Certified

2017
 2017/05
 The Outstanding Cooperation Supplier Award From HHGrace

2017
 2017/07
 Certificated by IATF 16949:2016 (see the folder for the original picture file)

2017
 2017/08
 Occupational health and safety management system OHSAS 18001:2007 certificated (see the folder for the original picture file)

2017
 2017/12
 VP C.W. Lee awarded certificate of appreciation from SEMI SMG

2018
 2018/01
 GlobalWafers Awarded Triple A Country Award Taiwan 2017— Best GDR by The Asset.

2018
 2018/06
 Passed the Cleaner Production Assessment System of the Green Factory Label

2018
 2018/11
 Awarded 1 Gold Tower, 2 Silver Towers & 1 Copper Tower from Corporate Synergy Development Center on the 31th OCC competition

2018
 2018/12
 Granted Excellent President Award from 36th Chinese Professional Management Association

2019
 2019/01
 GlobalWafers passed the green building certification and won the gold medal

2019
 2019/05
 Ranking in the top 5% of all listed OTC companies in the 5th corporate governance appraisal by Securities and Futures Institute

2019
 2019/10
 Awarded the green factory label from the Industrial Development Bureau

2019
 2019/12
 Won the Gold Tower Award for the "2019 Taiwan Continuous Improvement Competition" held by the Corporate Synergy Development Center

2020
 2020/04
 Finalist for the top 5% listed companies in the 6th Corporate Governance Evaluation

2020
 2020/09
 Certified by CNS 45001:2018

2020
 2020/09
 Taisil Branch won the SGS ISO 45001 Plus Award Model Award

2020
 2020/05
 Won the 2019 Technology Industry Happy Enterprise Award

2020
 2020/01
 Won the Best Quality Award from HHGrace

2020
 2020/11
 SGS ISO 45001 Plus Award Model Award

2020
 2020/12
 GlobalWafers' subsidiary Taisil Electronic Materials won the Gold Tower Award for the "2019 Taiwan Continuous Improvement Competition" held by the Corporate Synergy Development Center

2020
 2020/09
 Enthusiastically assisted in the 2020 Hsinchu Science Park Industrial Safety and Environmental Protection Month Event

2020
 2020/09
 GlobalWafers' Hsinchu and Zhunan plants both won the 2020 Annual Waste Reduction and Circular Economy Outstanding Enterprise Award

2020
 2020/12
 Won the Gold Tower Award and the Silver Tower Award for the "2020 Taiwan Continuous Improvement Competition" held by the Corporate Synergy



01 Stakeholder Engagement & Analysis

- 1.1 Stakeholders Identification
- 1.2 Stakeholder Engagement and Response
- 1.3 Identification and Analysis of Material Issues

1.1 Stakeholders Identification

Identifying and communicating with stakeholders is at the core of corporate social responsibility. Based on operational characteristics and cross-departmental discussions, GlobalWafers has identified its shareholders that include staff members, customers, shareholders (investors) and suppliers (contractors), governmental departments (Science Park Bureau, Environmental Protection Bureau, Environmental Protection Administration, Energy Conversation Bureau, Ministry of Labor and so on), and the media.

1.2 Stakeholder Engagement and Response

GlobalWafers has established a variety of communication channels in its daily operations to maintain inter-communication with stakeholders. A mailbox and a customer service hotline for external communication have also been set up on the company website to collect opinions of our primary stakeholders related to our management & activities, i.e., investors, customers, media, and so on.

Primary stakeholders	Significance to GlobalWafers	Communication channel	Communication frequency	Issues of concern
<p>Customers</p>	Company's main source of revenue	Operation meetings	Non-scheduled	<ul style="list-style-type: none"> Product price Customer service Product quality Hazardous substances management Business continuity planning
		Annual customer satisfaction survey	Once a year	
		Customer audit	Non-scheduled	
		Appeal/complaints telephone or email	Non-scheduled	
<p>Employees / Union</p>	Employees are the Company's most important asset. Only by taking good care of employees can the two grow synergistically	Internal website and emails	Non-scheduled	<ul style="list-style-type: none"> Occupational safety Human rights Emergency & Contingency Job opportunities Equal pay between men and women
		Company notice board	Non-scheduled	
		Labor-management consultation meetings (Taiwan)	Four meetings per year	
		Complaint boxes or hotlines	Non-scheduled	
		Performance appraisal interviews	Once a year	
		All organizational meetings	Non-scheduled	
Union member meeting	Non-scheduled			
<p>Shareholders / Investors</p>	All shareholders are investors of the Company, and the information that should be disclosed shall be handled in a fair manner	Shareholders meeting, institutional investors conference, domestic investment institute seminars, and face-to-face communication meetings.	2020: a total of 14 lectures	<ul style="list-style-type: none"> Sound finance Integrity & Ethics Risks & Crisis Management Financial performance Management strategies & financial goals Regulation compliance Business continuity planning
		Company annual report	Once a year	
		News announcement on company websites and the Market Observation Post System	Non-scheduled	
		Collecting and replying to messages via telephone or emails	Non-scheduled	

Primary stakeholders	Significance to GlobalWafers	Communication channel	Communication frequency	Issues of concern
<p>Suppliers / Contractors</p>	They are the Company's partners and must maintain the same ideals as ours in order to provide services in line with our needs.	Operation meetings	Non-scheduled	<ul style="list-style-type: none"> Integrity & Ethics Management strategies & financial goals Reduction at the source
		On-site audit	Non-scheduled	
		Collecting and replying to messages via telephone or emails	Non-scheduled	
<p>Governmental institutes</p>	Maintain a smooth and good communication relationship, and express the company's determination to comply with legal requirements	Correspondence of official documents, meetings (public hearings or conferences)	Non-scheduled	<ul style="list-style-type: none"> Water resource management Water pollution prevention Chemical control Waste control Pollution prevention Reduction at the source Regulation compliance Greenhouse gas reduction
		By communicating and meeting with associations or unions	Non-scheduled	
<p>The Media</p>	We establish a contact channel with the media to provide non-scheduled, correct, fair, and objective industry and corporate news.	Releasing news	We release an average of 2 to 3 pieces of news for each quarter.	<ul style="list-style-type: none"> Greenhouse gas reduction Financial performance Regulation compliance
		We sporadically receive interviews by the media and provide industry news.		

1.3 Identification and Analysis of Material Issues

GlobalWafers accepts diverse opinions and references the Global Reporting Initiative (GRI) sustainability reporting guidelines as the principle to define its report contents. Stakeholder inclusiveness: GlobalWafers has identified the stakeholders and explained how to respond to their reasonable expectations and interests. Sustainability context: Reveals how GlobalWafers can improve or reduce damage in terms of local, regional, and global economic, environmental, and social conditions, developments, and trends. Significance: Reflects the significant economic, environmental, and social impacts of GlobalWafers and how they will materially affect the evaluation and decision-making of stakeholders. Comprehensiveness: The report covers the material themes and their boundaries; which is sufficient to reflect the significant economic, environmental, and social impacts of GlobalWafers; and enable stakeholders to evaluate GlobalWafers' performance during the reporting period.

Report quality distinction principles - Accuracy: The information in the report is sufficiently accurate and detailed for stakeholders to evaluate the performance of GlobalWafers. Balance: The information in the report reflects the positive and negative performance of GlobalWafers, and enables everyone to make a reasonable assessment of the overall performance of GlobalWafers. Clarity: GlobalWafers presents information in a manner that is easy for stakeholders who need the information to understand and obtain. Comparability: GlobalWafers uses consistent standards to screen, sort, and report information. The information expression method allows stakeholders to analyze the long-term performance of GlobalWafers, and compare and analyze its profitability with that of other organizations. Reliability: The processes adopted by GlobalWafers to prepare the report involve information collection, recording, aggregation, analysis, and disclosure in a manner that can be reviewed as well as establish the quality and significance of the information. Timeliness: GlobalWafers' regular reports provide timely information for stakeholders to make decisions.

GlobalWafers' material issues are identified based on the interactive experience and communication records of the President's office, sales office, procurement office, Administration office, and other relevant external units as well as stakeholders. Issues of concern from employees, customers, shareholders (investors), suppliers (contractors), government agencies, media, etc., are collected. The importance of each issue of concern is determined by the Corporate Sustainable Development Committee during internal meetings whereby the committee members distinguish the "stakeholders' interest level" and "impact on GlobalWafers," and then divide the issues into economic, environmental, or social aspects to plot a materiality matrix. Finally, topics with high interest and high impact in all aspects are listed as material issues. We will disclose the management guideline for the material issues in this report. Other issues that do not have a major impact will be disclosed as a summary or may not disclosed in this report.

01 Stakeholders Engagement
Has identified six major groups of stakeholders

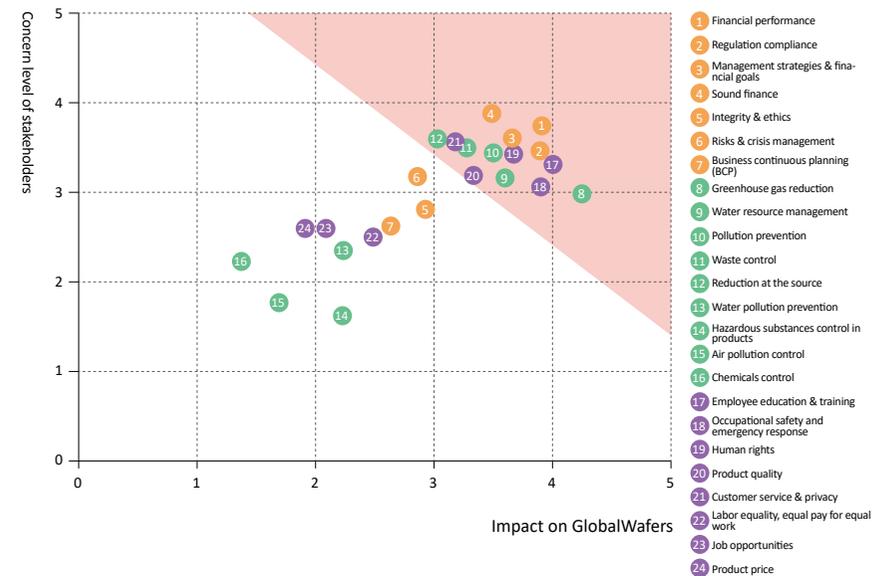
02 Collects CSR Issues of Concern to Stakeholders
Collects 24 CSR issues

03 The Impact of CSR Issues on GlobalWafers
The Corporate Sustainability Committee has identified 14 material issues

Economic Aspect		
Serial no.	Issues	Material
1	Financial performance	✓
2	Regulation compliance	✓
3	Management strategies & financial goals	✓
4	Sound finance	✓
5	Integrity & Ethics	
6	Risks & Crisis Management	
7	Business Continuous Planning (BCP)	

Environmental Aspect		
Serial no.	Issues	Material
1	Greenhouse gas reduction	✓
2	Water resource management	✓
3	Pollution prevention	✓
4	Waste control	✓
5	Reduction at the source	✓
6	Water pollution prevention	
7	Prevention of hazardous substances in products	
8	Air pollution control	
9	Chemical control	

Social Aspect		
Serial no.	Issues	Material
1	Talent cultivation	✓
2	Occupational safety and emergency response	✓
3	Human rights	✓
4	Product quality	✓
5	Customer service and privacy	✓
6	Labor equality, equal pay for equal work	
7	Job opportunities	
8	Product price	



The Boundary and Scope of Material Issues

Material topics	Company's internal boundary			Company's external boundary	Corresponding GRI standards	Corresponding chapters
	GlobalWafers	Taisil Branch	Offshore branch companies	Suppliers		
 Economic Aspect	Regulation Compliance	●	●	●	GRI307 GRI419	2.2.4 Regulation compliance
	Management Strategies & Financial Goals	●	●	●	GRI201	2.3 Operation performance
	Financial Performance and Sound Finance	●	●	●	GRI201	2.3 Operation performance
 Environmental Aspect	Source Reduction and Pollution Prevention	●	●		GRI301 GRI302 GRI303	4.3 Source Reduction 4.4 Pollution prevention
	Water Resource Management	●	●	●	GRI303	4.3.3 Water resource management
	Waste Control	●	●	●	GRI306	4.2 Waste management
	Greenhouse Gas Reduction	●	●	●	GRI305	4.1.1 Greenhouse Gas
 Social Aspect	Occupational Safety and Emergency Response	●	●	●	GRI403	5.2 Occupational health and safety
	Customer Service, Privacy and Product Quality	●	●	●	GRI102-43	3.1 Innovation management 3.2 Product quality 3.3 Customer service
	Human Rights	●	●	●	GRI406 GRI102-41	5.1.4 Human rights
	Talent Cultivation	●	●	●	GRI404	5.2.2 Safety advocacy and education & training

Note:

Internal border:

Taiwan: GlobalWafers Headquarters, GlobalWafers Zhunan Plant, Taisil Branch
 Mainland China: Kunshan Sino Silicon Technology Co., Ltd.
 Japan: GlobalWafers Japan Co., Ltd. \ MEMC Japan Ltd.
 South Korea: MEMC Korea Company
 Malaysia: MEMC Electronic Materials Sdn. Bhd.

United States: GlobiTech Incorporated., MEMC LLC
 Italy: MEMC Electronic Materials S.p.A
 Denmark: Topsil GlobalWafers A/S
 Singapore: GlobalWafers Singapore Pte. Ltd.



02 Governance and Operation

- 2.1 Sustainable Organization
- 2.2 Corporate Governance
- 2.3 Operation Performance
- 2.4 Risks Management

Material Issues

Regulation compliance, Sound finance, Management strategy & Financial goals, Financial performance

Significance to GlobalWafers

Core value of GlobalWafers - People, Integrity, Passion, Excellence, and Innovation. We firmly believe that by adhering to the people-first principles, maintain honesty and integrity, devote enthusiasm to life and work, and make unremitting efforts; we will naturally outperform our competitors. Our different visions and horizons will also bring an endless source of creativity, and eventually transform into innovative technologies that will change the future. Meanwhile, we will actively implement corporate social responsibility (CSR) and create the Company's unique value in order to win the trust of investors, customers, as well as employees and strive to achieve the goal of sustainable operation.



Management Mechanism

Policies

- Sustainable growth
- Integrate and enhance the operational performance of all business entities, optimize production, minimize costs, and maximize profits in the most efficient manner.
- Flexibly respond to the challenges of COVID-19 and trade disputes, allocate overseas production capacity prudently, and stabilize shipments.
- Steadily expand the scale of company operations via strategic alliances or mergers and acquisitions based on the current stable and outstanding business performance.

Commitment

- The Group's high-end leading technology is utilized to develop chips matching next generation product utilization. Development shall move towards large size advanced manufacturing process, heavily-doped crystal growth and power semiconductor epitaxy technology, as well as becoming the world's largest silicon wafer supplier.

Goals

Short-term Goals

- Combine technologies, resources and various possibilities within the group to optimize the bottleneck spots of each plant and maximize product capacity, deepen the multinational technology integration platform, and comprehensively improve quality and customer satisfaction to meet market demand.
- Stabilize the supply of key raw materials and parts to ensure good production quality and on-time delivery, so that the production line runs smoothly.

Mid-term Goals

- Strengthen the operating performance of each business entity; and continue to integrate production technology, procurement, production capacity, and marketing across 17 operating production sites in 9 countries worldwide in order to minimizing costs.
- Proactively deploy our advanced manufacturing process for niche applications, accelerate the development energy for new technologies and new products, and strengthen patents deployment.
- Develop high-efficiency niche products with core technology capabilities to enhance added value.
- Actively sign long-term cooperation plans with key partners to consolidate the foundation of cooperation.

Long-term Goals

- The Group's high-end leading technology is utilized to develop chips matching next-generation product utilization. Development shall move towards large size advanced manufacturing process, heavily-doped crystal growth and power semiconductor epitaxy technology, as well as becoming the world's largest silicon wafer supplier.
- Accelerate the development of next-generation application products, including GaN and SiC, and actively expand the new blue sea.
- Have a firm grasp of market trends and industry pulse and adjust business strategies in a timely manner, continue developing potential products in various application areas, and carrying out patent protection measures to strengthen our own competitiveness.
- Strengthen R&D links with downstream customers, develop high-efficiency niche products with core technology capabilities, and actively reduce manufacturing costs to increase profit margins.
- Consolidate the design and raw material requirements for new products and materials by seeking a strategic alliance between technology and sales.
- To establish an excellent company governance mechanism to achieve the goal of sustainable operation growth

System

External System

- Compliance with such external regulations as the Company Act, Securities and Exchange Act, Business Mergers and Acquisitions Act, Guidelines for Online Filing of Public Information by Public Companies, Fair Trade Act, and Labor Standards Act.

Internal System

- Internal regulations and procedures include: Internal Control System; Articles of Incorporation; Procedures for Acquisition or Disposition of Assets; Endorsement Guarantee Management Methods; Third-party Fund Lending Operating Procedures; Derivative Transaction Engagement Procedures; Corporate Governance Procedures; Corporate Social Responsibility Procedures; Code of Integrity Management; Risk Management Methods; Code of Ethical Conduct; Code of Conduct for Reporting Illegal, Unethical, or Dishonest Cases; Major Internal Information Processing Procedures; Insider Trading Prevention Operating Procedures; Rules Governing Public Information Reporting; Liability Commitment and Contingency Management Measures; Corporate Group Sector Specific Company and Affiliate Transaction Procedures; Financial Business Supervision and Management Practices between Affiliates; as well as Long-term and short-term Investment Management Measures.

Resources

- Invested NT\$1,624,308 thousand for R&D in 2020, which accounted for 2.93% of operating costs.
- The strong R&D teams compose of 111 R&D engineers in Taiwan and 156 overseas.

Concrete Action

- Initiating Annual Operation Plans and formulation of KPIs for each department to strengthen internal operational management and control.
- Regular convening of business and production & marketing meetings to review goal achievement status and propose improvement & response strategies
- Establishing an incentive system for improvement proposals to boost process research and product quality betterment
- Formulating appropriate measuring methods upon identifying potential risk factors by each department; risk measurement including risk analysis and assessment
- Implementing a legal affairs mechanism and internal audits to facilitate our determination for sustainable development

2020 Key Achievements

- Total consolidated revenue reached NT\$ **553.59** billion, which slightly **reduced 4.71%** due to the outbreak of the pandemic
- EBITDA % and net profit margin reached **all time high**
- Earnings per share was NT\$ **30.11**, maintaining good profitability
- Revenue, gross profit, gross profit margin, EBITDA, operating income, net profit before tax, net profit after tax, and EPS made the **third highest** record in history
- As of 2020, the GlobalWafers Group has obtained a total of **1,464** patents in the past years
- GlobalWafers' Hsinchu and Zhunan plants both won the **Outstanding Enterprise Award** for Waste Reduction and Circular Economy
- Won the “**top 5%** of all listed OTC companies in the 6th corporate governance appraisal by Securities and Futures Institute” honor
- Won the **Gold Tower Award** and the **Silver Tower Award** for the “2020 Taiwan Continuous Improvement Competition” held by the Corporate Synergy Development Center



2.1 Sustainable Organization

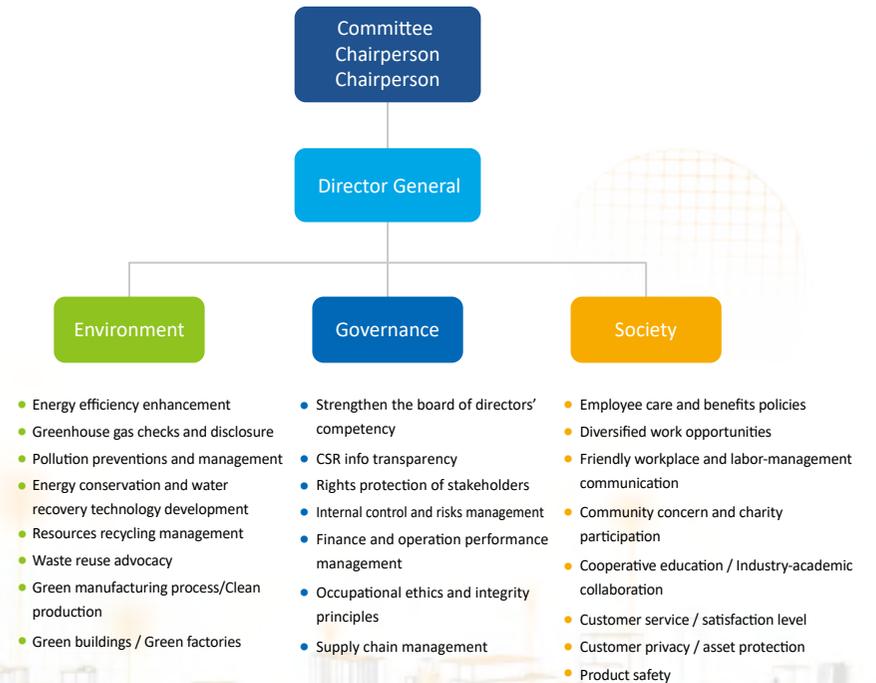
To strengthen and implement sustainable governance, GlobalWafers has established a Sustainable Development Committee in April 2017. The President serves as the Committee Chairperson and leads the company's operational organizations, the direction of sustainable development and goal formulation. There is also a director general taking charge of the relevant administration of the CSR Committee. The supervision responsibility of the Audit Office has been set, and the Company has also established the audit committee, remuneration committee, and nomination committee to enhance the functions of the board of directors and enhance corporate governance.

GlobalWafers' board of directors has passed the Corporate Social Responsibility Policies and Corporate Social Responsibility Best Practice Principles as a gesture to declare to stakeholders the formidable determination of our highest management body in the implementation of sustainable corporate development. We hope to have an impact on the industry for extended participation and awareness and for concerted efforts towards a sustainable society. Regarding execution, to implement the ESG activities in the three aspects of environment, society, and governance, the Committee is further divided into three task forces, namely, the environmental, governance, and social sections. The above task forces consist of specialized committee members and department executives in charge of the formulation of strategies and management directions, as well as issue-based cross-department integration and execution & implementation, while conducting reviews and continuous improvements on implementation effectiveness. Regarding their corresponding stakeholders, the task forces aim to seek various communication and engagement channels to understand stakeholders' issues of concern and expectations for the corporate governance, environmental and social aspects of GlobalWafers. Decisions would be made based on the CSR Committee discussions. The performance and goal achievement status of the CSR Committee will also be reported regularly to the board of directors.

GlobalWafers Co., Ltd.



Sustainability Development Committee

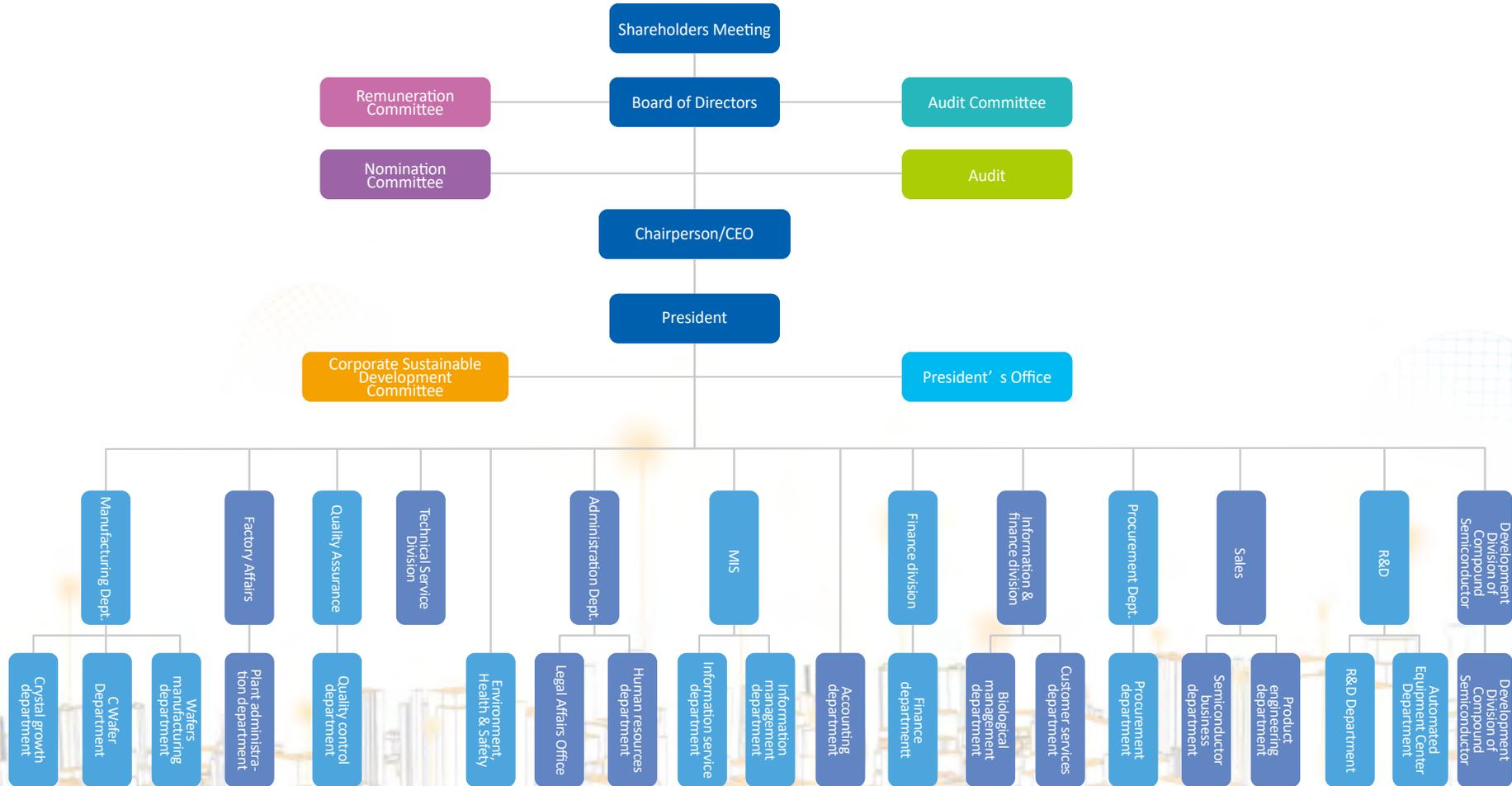


2.2 Corporate Governance

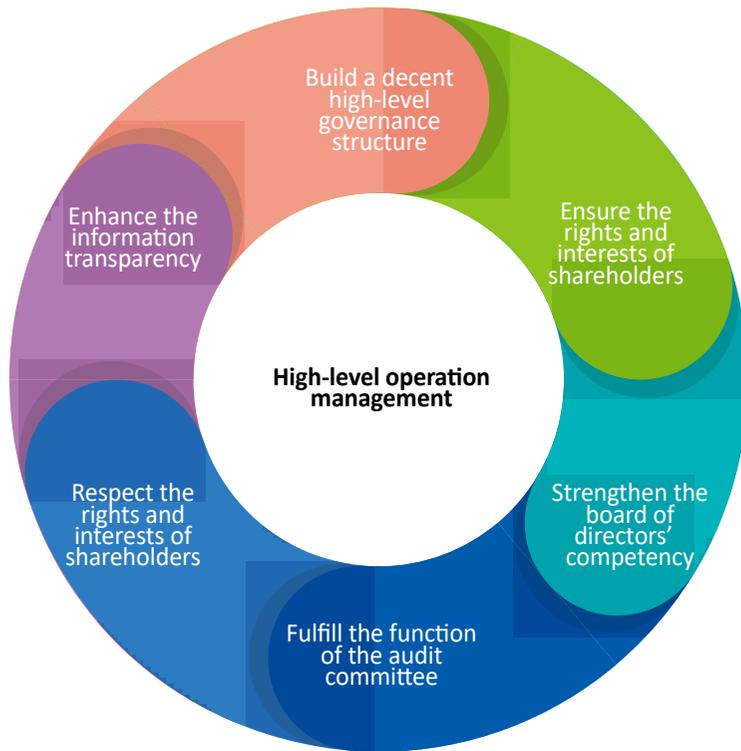
GlobalWafers adheres to the “integrity” corporate culture by fully implementing honesty and integrity, fair and transparent, and socially responsible management concepts. The Company is able to establish a good corporate governance system through the various ethics policies and achieve the sustainable operation objective.

2.2.1 Governance Structure

GlobalWafers’ Organizational Chart



High-level Operation Management



GlobalWafers adheres to principles of integrity, holds the shareholders' rights and interests in high regard and believes that an efficient board of directors is the basis of excellent corporate governance. GlobalWafers has established an effective corporate governance structure; and its board of directors has authorized the establishment of an audit committee, a remuneration committee, and a nomination committee to assist the board of directors in fulfilling their supervisory duties. The organizational charter of both committees has been approved by the board of directors, and the committees report regularly to the board of directors regarding their activities and decisions. GlobalWafers' audit and remuneration committees are entirely composed of independent directors, and over half of the nomination committee members are independent directors.

GlobalWafers has established a sound corporate governance structure to achieve continuous improvements and excelsior via its internal audit and control so as to thoroughly fulfill corporate governance. Looking to the future, GlobalWafers will still adhere to principles of integrity and continue with its corporate governance blueprint, while strengthening its company competency so as to enhance its operation performance, facilitate corporate social responsibility and proactively forge ahead towards being a benchmark enterprise.

Summary of Key Points for the Corporate Governance Organization

- The GlobalWafers board of directors consists of 7 directors of whom 3 are independent directors.
- Both the audit and remuneration committee members are composed of independent directors, and over half of the nomination committee members are independent directors
- A head of corporate governance was appointed to increase support for directors and enhance the effectiveness of the board of directors
- The organizational charter of all committees is publicly disclosed in the corporate website
- The board of directors and the committees have conducted annual self-performance evaluations and disclosed the evaluation results on the company website

Board of Directors

The board of directors is composed of 7 knowledgeable and experienced directors who are professionals in technology, operation management, finance, and strategic management fields in order to fully implement the Company's good corporate governance system, improve supervisory functions, and strengthen management. The term of office for board members is 3 years, and they are eligible for re-election. At least one meeting must be held every quarter. Moreover, to improve the professional knowledge and legal literacy of company directors, the directors must take at least 6 hours of refresher courses each year (new directors must take at least 12 hours of refresher courses). The Company has also appointed a corporate governance director to increase support for directors and enhance the performance of the board of directors. The responsibility of the board is to supervise and ensure the company's compliance with the laws and provide the management team with strategies and guidance, as well as evaluating the performance of the management team so as to prompt the company to achieve the operational goals and enhance the management performance.

In 2020, GlobalWafers' board of directors convened a total of 7 meetings, with an average attendance rate of 100%. The board organization and board members' professional and educational background and attendance record are illustrated as below:

Main Academic (Experience) Background and Attendance Status of Board Members in 2020

Title	Name	Gender	Primary professional (educational) background	Actual no. of presence (in attendance)	No. of presence by proxy	Actual presence (attendance) rate (%)	Notes
Chairperson	Doris Hsu / Hsiu-Lan Hsu	Female	MA in Computer Science from University of Illinois / Executive Vice President of Sino-American Silicon Products Inc.	7	0	100%	
Director	Sino-American Silicon Products Inc. representative: M.K. Lu / Ming-Kuang Lu	Male	Honorary Doctor of Engineering from National Chiao Tung University / President of Lite-On Semiconductor Corp. / President of Syu-Sin Technology Co., Ltd. / Vice President of Silitek Co, Ltd.	7	0	100%	
Director	Sino-American Silicon Products Inc. representative: Tan-Liang Yao	Male	MA Degree from the Graduate Institute of Management at Tamkang University / Assistant Vice President of the Manufacturing Division of Lite-On Power Semi / President of Sino-American Silicon Products Inc.	7	0	100%	
Director	Kuo-Chow Chen	Male	Tainan Nan Ying Senior Commercial & Industrial Vocational School / Chairperson of Nan Hai Corp. / Board Director of COTA Bank	7	0	100%	
Independent Director	Chih-Hsiun Cheng	Male	Master, Accounting and Information Technology, National Chung Cheng University / Deputy division chief of Yulon Motor / Yue Audit Director of Sheng Industrial Co., Ltd. / Cost Director of Yueki Industrial Co., Ltd. / Administration Manager of Rica Auto Parts Co., Ltd / Finance Division Director of Wafer Works Corp.	7	0	100%	
Independent Director	Jeng-Ywan Jeng	Male	PhD from Institute of Mechanical Engineering, University of Liverpool / Distinguished Professor for the Department of Mechanical Engineering, NTUST	7	0	100%	
Independent Director	Hsien-Chin, Chiu	Male	PhD from Institute of Electrical Engineering, National Central University / Professor at Department of Electronic Engineering, Chang Gung University / Senior Engineer of WIN Semiconductors Corp.	5	0	100%	Newly appointed on June 23 2020

Please refer to [GlobalWafers 2020 Annual Report](#) for information on directors' remuneration, directors' concurrent positions in GlobalWafers as well as other company positions, and board resolutions.

Remuneration Committee

GlobalWafers has established a Remuneration Committee on December 12, 2014 in order to implement corporate governance and improve the remuneration system for directors (including independent directors) and managers. The committee consists of 3 independent directors and holds at least 2 meetings each year. A total of 4 meetings were held in 2020 with an average attendance rate of 100%.

The Remuneration Committee aims to assist the board of directors in executing and reviewing the company's overall remuneration and benefits policies, system, standards and structure, as well as assessing the goal fulfillment performance of the directors and managers, regularly reviewing the organizational charter of the Remuneration Committee and proposing and submitting suggestions to the board of directors for discussion.

In line with the guideline as outlined by the organizational charter of the Remuneration Committee, the Committee is entitled to hire lawyers, accountants or other consultants to assist the duty execution.

For the organizational charter of the Remuneration Committee, please refer to the [GlobalWafers corporate website](#).

Remuneration Committee independent director attendance status for 2020

Title	Name	Actual attendance no.	No. of presence by proxy	Actual attendance rate	Notes
Convener	Ji-Xiong, Zheng	4	0	100%	
Board member	Jeng-Ywan Jeng	4	0	100%	
Board member	Hsien-Chin, Chiu	4	0	100%	

Audit Committee

GlobalWafers has established an Audit Committee on March 19, 2015 in order to strengthen the corporate governance internal supervision mechanism. The committee consists of 3 independent directors and holds at least one meeting each quarter. A total of 7 meetings were held in 2020 with an average attendance rate of 100%.

The Audit Committee aims to assist the board of directors in fulfilling its primary goal of supervision regarding the following matters

- Adequate expression of the corporate financial statements
- Selection (dismissal) of certification accountants and their capability, credentials, independence and performance
- Effective implementation of internal company control
- Company compliance with laws and regulations
- Control and management of the company's potential or existing risks

In accordance with regulations as outlined in the committee's organizational charter, the Audit Committee members are entitled to conduct any suitable audits and investigation within the confinement of their responsibilities, while having direct contact channels with GlobalWafers' internal audit personnel, certification accountants and other relevant personnel. The committee is also entitled to hire lawyers, accountants or other consultants to assist the duty execution.

For the organizational charter of the Audit Committee, please refer to [GlobalWafers' website](#).

For details on Audit Committee resolutions, please refer to [GlobalWafers 2020 Annual Report](#)

Audit Committee independent director attendance status for 2020

Title	Name	Attendance in Person	No. of presence by proxy	Actual attendance rate	Notes
Independent Director	Chih-Hsiun Cheng	7	0	100%	
Independent Director	Jeng-Ywan Jeng	7	0	100%	
Independent Director	Hsien-Chin, Chiu	5	0	100%	Newly appointed on June 23 2020

Nomination Committee

GlobalWafers has established a Nomination Committee on December 9, 2020 to improve the nomination system for the Company's directors and senior managers. The committee is composed of 3 directors, 2 of which are independent directors. This committee will hold a formal meeting in 2021.

The Nomination Committee is designed to assist the board of directors to find, review, and nominate candidates for directors and senior managers; conduct performance evaluations of the board, committee, and director members; evaluate the independence of independent directors; as well as formulate and review training plans and succession plans for directors and senior managers.

In compliance with the guideline as outlined by the organizational charter of the Nomination Committee, the Committee is entitled to hire attorneys, accountants, or other consultants to assist the duty execution.

For the organizational charter of the Nomination Committee, please refer to [GlobalWafers' website](#).

2.2.2 Ethics and Integrity

• Core Values

GlobalWafers' most important core value is "Honesty and Integrity." GlobalWafers has formulated the relevant specifications and communication mechanisms for all directors, managers, and colleagues to follow in order to establish an ethical business environment. Rigorous management mechanism and effective control are executed to minimize the risk of dishonesty, create value for customers, and achieve benefits for the shareholders and stakeholders.

• Internal Regulation System

To implement integrity management, GlobalWafers has established important internal regulations such as "Code of Integrity Management," "Code of Ethical Conduct," and "Integrity Management Operating Procedure and Action Guideline." Their contents cover topics such as integrity management, ethical behavior, prohibition of unreasonable hospitality or improper interests, prohibition of intellectual property rights infringement, prohibition of anti-competitive behavior, as well as conflict of interests. These documents are published on the Company website and internal website for colleagues to review at any time in order to improve legal compliance and professional ethics awareness for all colleagues.

On September 30, GlobalWafers has revised its internal regulation system pursuant to the integrity management related provisions provided by the Taipei Exchange. The Company has also taken its operating status into consideration to amend the "Integrity Management Operating Procedure and Action Guideline," added "Assessment Mechanism on the Integrity of Transaction Partners before Establishing Business Relationships" as well as the "Dishonest Behavior Risk Assessment Mechanism," prevented its products or services from harming stakeholders, and amended the definition of "Conflict of Interest for Directors" according to the Company Act.

For first-line marketing and procurement colleagues, the Company has reiterated the importance of “honesty and integrity” via “Sales Management Measures” and “Procurement Management Measures,” and established a comprehensive business law compliance mechanism covering topics such as fair competition, due diligence, trade control (trading counterparty, subject matter, purpose of use, cash flow, as well as relevant trade control and restrictions of major trading countries), anti-corruption, anti-bribery, and conflict of interests prevention and exemption mechanism. The Company also uses supply chain control to ensure compliance with conflict-free minerals provisions.

In addition to signing “Intellectual Property Rights and Confidentiality Agreements” with employees, the marketing and purchasing units are also required to sign non-disclosure agreements (NDAs) before cooperating with suppliers and customers in order to prevent unethical information-related acts such as disclosing company secrets to others. Employees are also prohibited from inquiring or collecting non-job-related company operation secrets in order to fully protect the sensitive or confidential information of business partners. GlobalWafers has established the “Personal Data Protection Management Measures,” regularly implemented personal data inventory, and practiced personal privacy confidentiality obligations with the highest ethical standards.

• Anti-bribery and Anti-corruption

GlobalWafers insists on “3 Nos”: No bribe offering, no bribe receiving, and no bribe demanding. The “Code of Integrity Management” clearly stipulates that colleagues shall not directly or indirectly provide, promise, request or receive any improper benefits during the process of engaging in business activities. The “Integrity Management Operating Procedure and Action Guideline” further provides clear codes of conduct for colleagues, and the key points include: (1) If payment is provided or promised due to threat or intimidation, record the process, report to the supervisor, and notify the compliance unit. (2) If others provide or promise illicit benefits, return or refuse the offer, and report to the supervisor and notify the compliance unit. If it cannot be returned, hand it over to the legal compliance unit for processing within 3 days from the date of receipt.

• Conflict of Interest

The “Integrity Management Operating Procedure and Action Guideline” clearly stipulates that when directors, managers, and other interested parties participating or attending a board of directors meeting have a conflict of interest with the proposals listed by the board of directors; the conflict of interest shall be explained to the board of directors. If such conflict of interest is harmful to the Company, said personnel shall be prevented and recused from discussion and voting, and shall not act on behalf of other directors to exercise their voting rights. Board directors shall also be self-disciplined and not offer inappropriate support to each other.

When a GlobalWafers colleague discovers that there is a conflict of interest with himself/herself or the legal person he/she represents during Company business performance, or the situation may enable himself/herself or his/her spouse, parents, children, or their interested parties to obtain improper benefits; report the relevant situation to the direct supervisor and the GlobalWafers Legal Compliance Unit, and the direct supervisor shall provide appropriate guidance.

• Education and Training

GlobalWafers firmly believes that “integrity management is achieved by full compliance with laws and regulations.” So, the Company has actively organized education and training as well as integrity management policy advocacy, and promoted the integrity policy and its importance to directors and employees. The goal is to ensure that all colleagues fully understand and comply with the policies, execute operations according to the highest standards, and practice the core value of “Honesty and Integrity” in daily work. Specific course contents offered in 2020 related to ethics and integrity are as follows:

- 1 hour of education and training for new directors on the “Legal Overview of Insider Trading and Insider Equity Transfer.” The contents include insider trading law analysis (constitutive elements, major news disclosure method and time period, judicial opinions) and insider equity transfer law analysis (the obligation to declare before/after the event, and maintaining the number of shares held by directors and supervisors).
- 2 hours of “Integrity Management Education and Training” for new directors. The contents include trade secret protection, competition law topics, anti-bribery and corruption, conflicts of interest prevention, and KYC/export control.
- 1 hour of “New Employee Education and Training” for new employees. The contents include integrity management and code of ethical conduct, and an overview of insider trading laws.
- Education and training on “U.S. Trap Topic Sharing” for semiconductor business division directors and R&D unit division or higher supervisors are 20 minutes and 1 hour, respectively. The contents include the analysis of the U.S. Foreign Corrupt Practices Act (FCPA), the long-arm jurisdiction of foreign laws and huge fines, the Alstom bribery case, and their lessons to our nation’s companies.
- The “Introduction to hp v. Guangming Case and Guidelines on Compliance with Relevant Fair Trading Laws” course for semiconductor business system directors is 20 minutes. The contents include the analysis of the U.S. competition law system, the Guangming joint action case, and their revelation to our nation’s companies.
- The “Law and Regulation Compliance” course for marketing unit directors is 20 minutes. The contents include joint action prevention, U.S. EAR export control, as well as anti-bribery and corruption.

• Reporting Channel and Informant Protection

GlobalWafers has established the “Illegal and Unethical Behavior Report Handling Method” in order to ensure integrity management compliance and clearly stipulate the disciplinary and appeal system for integrity management violations. The Company has also established and provided employee suggestion boxes, e-mails, and appeal hotlines on the Company’s internal website; and pledged to protect whistleblowers from any mistreatment due to whistleblowing. The goal is to encourage GlobalWafers internal and external personnel to report unethical behaviors or misconducts.

GlobalWafers shall ensure that the identities of the informants and the contents of the report are kept confidential, and the relevant personnel involved in the report verification and investigation are also required to sign a written confidentiality statement. If an integrity management regulation violation is proven, punishment shall be issued according to the severity of the case. The specific reporting process and the responsible unit are summarized as follows:

1. Acceptance Unit and Accepted Party

Acceptance Unit	Accepted Party
Spokesperson	1. Shareholders, 2. Investors, 3. Other interested parties
Personnel manager	1. Company insiders, 2. Customers, 3. Suppliers, 4. Contractors
Legal Affairs	Same as spokesperson and personnel supervisor accepted parties

2. Processing Unit and Procedure

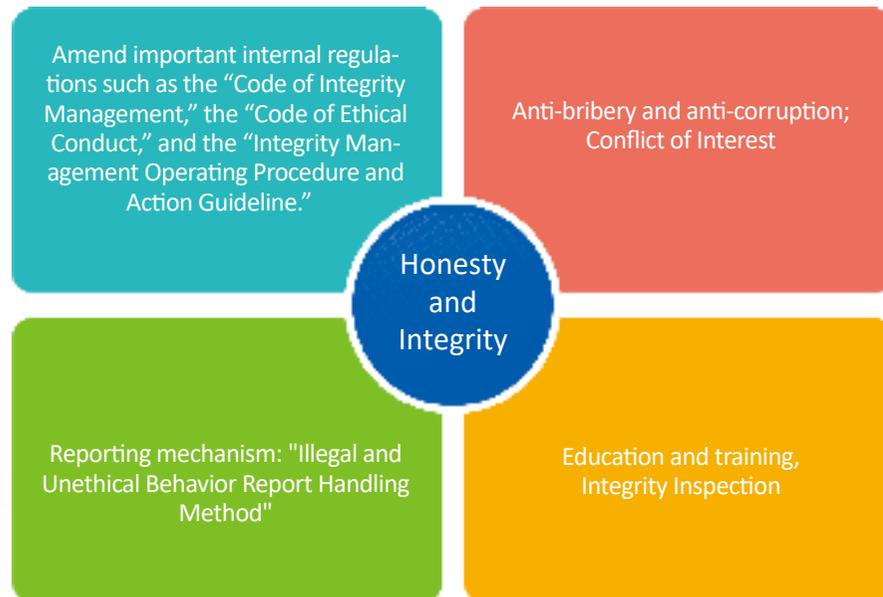
The Accused	Processing Procedure	Processing Unit
General Employees	Money Case	Report to the Chairperson Human Resources (legal affairs must assist)
	Non-money Case	Report to the Chairperson, Notify the Department Director Human Resources + Department Director (legal affairs must assist)
Chairperson, Director, Senior Executive	Report Submission Independent Director or Audit Committee	Human Resources + Legal Affairs

3. Handling Method

Steps	Responsible Unit	Content
1. Investigate the Facts	Human Resources, Legal Affairs	<ul style="list-style-type: none"> Investigate the relevant facts immediately; if it is believed that there is indeed a risk of unethical behavior, submit the case to the Chairperson of the board of directors for case delegation. The relevant personnel handling the case shall issue a written disclosure to keep the identity of the informant and the content of the report confidential. Written records of report acceptance and investigation shall be kept for 5 years.
2. If verified to be true	Human Resources, Legal Affairs	<ul style="list-style-type: none"> The perpetrator is required to stop the relevant behaviors, and shall be properly disciplined via the Company’s internal procedures or legal procedures. Information such as the job title, date of violation, facts of violation, provisions violated, and handling status shall be disclosed on the Market Observation Post System. (the same shall apply to those receiving immunity from the board of directors) If necessary, report to the competent authority or transfer the case to the judicial authority for investigation. The relevant unit of the perpetrator shall review the internal control system and operating procedures, and propose improvement measures. The investigation results shall be recorded in writing and be kept for 5 years.
3. Relief	Human Resources	<ul style="list-style-type: none"> Give the perpetrator the opportunity to appeal, and convene a Personnel Appraisal Committee hearing if necessary.
4. Report to the board of directors	Legal Affairs	Submit the case reported, the handling method, and the subsequent review and improvement measures to the board of directors.

• Integrity Inspection

The Legal Affairs Office shall be responsible for the formulation, supervision, and implementation of the integrity management policy and prevention plan. At present, use the mail system keyword screening, access control, reporting system, interview marketing & intellectual property team (fair trading & intellectual property infringement risk), and the individual case investigation method for special cases to conduct inspections and ensure that the Company's operations comply with the integrity management guidelines. The Legal Affairs Office regularly reports the aforesaid cases to the Board of Directors every year, and no corruption incidents have occurred after investigation in 2020. GlobalWafers will continue to review and optimize each work item details, and strive to eliminate any unethical and dishonest behaviors.



2.2.3 Implementing Internal Audits

• Primarily Goal for the Set-up

Check and assess the soundness, rationality, and effectiveness of the company's internal control system; assist in the advocacy of the internal control system; and perform audits and present reports to appropriate management.

• Key Areas for Execution

1. Internal control system: Assist managers in designing appropriate internal control mechanisms and conduct "Internal Control System Self-assessment." Each department shall evaluate the internal control status for its own responsible area. The goal is to achieve the self-examination effect and strengthen the internal control concept for evaluation department.
2. Annual audit plan: formulate the annual audit plan vis risk assessments, perform audit for the various operating procedures based on the Company's business activities, identify process defects, and make recommendations during operations to ensure the internal control proficiency.
3. Audit project review: Perform project inspections in response to potential risks (including fraud and corruption) identified by senior executives, and make recommendations in order to improve internal control integrity.
4. Discussion of audit findings: Discuss improvement measures with the inspected unit based on the audit findings, and continue to track the follow-up improvement status to realize internal control implementation.
5. Report the audit operation: Report the auditing results to the Audit Committee and board of directors, convey the weakness of the internal control and obtain instruction to improve the supervision effectiveness for enhanced corporate governance.
6. Subsidiary audit operation: Formulate the annual key audit items for the subsidiary's audit unit, review the audit reports of each subsidiary, and track the results of the audit.
7. Audit experience learning: Share the audit experience or cases in each area to the Group's audit team, and review or update the local internal control system accordingly in order to achieve the risk prevention effect.

Since becoming listed in the OTC market on September 25, 2015, the risk assessment conducted by the Company's risk management unit and the audit performed by the audit office did not discover any major abnormalities or corruption incidents.

Please refer to the internal audit organization and operation in the Company network for details.

https://www.sas-globalwafers.com/en/investor/corporate-governance_en/

2.2.4 Regulation Compliance

In addition to formulating the relevant policies and provisions according to domestic and foreign laws and regulations, GlobalWafers has also complied with the various relevant national laws and regulations. GlobalWafers also strictly requires all employees to comply with and understand the relevant laws and regulations via continuous education, training, promotion, and the regular inventory & self-evaluation system.

• 2020 Disciplinary Cases

Year	No. of penalty	Penalty of fines (NTD)	Penalty plant	Matter of violation	Correction measures
2020	1	6000	Taisil Branch	The Environmental Protection Bureau found that the non-hazardous sludge D-0903 has exceeded the permitted output volume by over 10% between March and June of 2008 in violation of Subparagraph 1, Paragraph 1, Article 31 of the Waste Disposal Act.	An investigation, it was confirmed that the output volume had been underestimated after the declared volume was compared with the volume approved by the waste disposal plan. So, we proposed a waste disposal plan amendment on July 2019, and the waste disposal plan approval volume was changed to 2.4 tons per month on July 29, 2019, which is in line with the current waste output.

In addition, the Legal Compliance Division has also assisted GlobalWafers to formulate the relevant internal provisions to ensure different departments abide by the applicable laws, and implement appropriate education and training.

• 2020 Law Compliance Focus:



Securities regulations

Strict management mechanism

- GlobalWafers' stocks are listed on the OTC market by the Taipei Exchange, and shall abide by the Securities and Exchange Act and other relevant laws and regulations.
- The President Office has established excellent communication channels with relevant supervising authorities and constantly monitors the latest legal developments. The Office is also responsible for searches of the latest legal announcements and changes. Upon identifying the latest developments, the Office will notify relevant departments to take responsive measures as required.
- The Legal Compliance Division shall further study the relevant regulations in response to the issues raised by the relevant departments and communicate with the competent authorities, and provide a correct response direction after confirmation.



Products, services, and import & export regulations

- Verify the law and regulation requirements of the customers' or suppliers' business locations or designated trading places to ensure that the products, processes, and services meet the laws and regulations of these locations.
- Ensure the raw material sources comply with the corresponding local laws and regulations, such as the EU RoHS directive, REACH regulations (restrictions), and the Toxic Substances Control Act (TSCA) of the United States.
- Our products are not prohibited from being sold in specific markets by the competent authority.



Labor & human rights regulations

Strict compliance with labor & human rights regulations

- Regularly revise various work systems and management regulations to meet or exceed local labor regulations. Use formal and informal channels as well as 2-way communication with supervisors and employees to ensure that all employees have the basic concepts of labor laws and regulations, and can help to create a sound working environment together.
- Valuing employee salaries and benefits; proactively cultivate talents; implement labor laws; ensure employees' rights Regarding major policy changes, remuneration & benefits, leave system changes that impact the rights of our employees, employees will be notified, prior to implementation, via labor-management meetings, electronic newsletters or announcements on the HR notice board to ensure employees' rights.
- Implement 0.5 or 1 hour of relevant human rights education and training for new employees, and conduct workplace violence and sexual harassment prevention related education and training for unit managers and interested colleagues every year thereafter. Establish the relevant methods and appeal windows to provide employees with unobstructed appeal channels and communication platforms, and prevent the occurrence of any illegal incidents.



Data management

- Formulating employment contracts and Business Confidentialities and IPR agreements, Code of Ethical Conduct, Handling Procedures for Intellectual Property Disputes, and Confidentiality Agreements.
- Management mechanism: Education on the importance of intellectual property and business secrets through posters and slogans, employee training and education, and signing of confidentiality agreements with employees in charge of relevant operations.



Corporate governance

- Formulate the "Code of Integrity Management," the "Code of Ethical Conduct," and the "Integrity Management Operating Procedure and Action Guideline."
- Management mechanism: Relevant contents are incorporated into education for current employees and orientation training for newly inducted employees to ensure compliance by all employees with said code of conduct in the performance of duties.



Environmental/OSH laws and regulations

- Identification and management procedures for environmental protection, energy management, and occupational health and safety related laws and regulations.
- Management mechanism: Review the compliance with the latest changes in environmental protection, occupational health and safety, energy management, and other related laws and regulations or other requirements each month; and regularly assess compliance with applicable regulatory requirements.

• Legal Compliance Courses and Education

With the regular launch of strengthened legal training courses, the company intends for the staff members to understand the important laws and regulations and to further enhance their formidable commitment to abide by the occupational ethics and confinements. Not only are promotional posters posted within the plant, but the policy guidance on legal compliance is also provided on the internal website or facilitated through the regulation advocacy activities of the following themed courses, so as to substantiate our staff members' understanding of all legal compliance.

• 2020 Course Offers



Occupational Ethics

- Legal Overview for Inside Trading and Insider Equity Changes
- Familiarize with Integrity Management related Laws
- New employee education and training (integrity management, code of ethical conduct, and an overview of insider trading laws)



Data Protection

- FAB Information Security Defense



Legal Compliance

- United States Trap Topic Sharing (FCPA)
- Introduction to hp v. Guangming Case and Guidelines on Compliance with the Relevant Fair Trading Laws
- Compliance with marketing laws and regulations (joint action prevention, U.S. EAR export control, as well as anti-bribery and corruption)



Health Care

- Colorectal Cancer Prevention and Treatment Seminar
- Fighting against Metabolic Syndrome Seminar
- Influenza Prevention Seminar
- Fighting against Metabolic Syndrome Seminar
- Health, are you Ready?
- Sexual Harassment Prevention Course
- Heart Care for Winter Lecture
- Workplace Violence Prevention Course
- Healthy Secrets & Workplace Performance Enhancement
- Improve Immunity and Prevent COVID-19: Respiratory Tract Infection Prevention
- Simple Core Muscle Training



Environmental Protection, Safety, and Hygiene

- On-the-job Occupational Health and Safety Education Training
- Emergency Response Education and Training
- Emergency Response Course - Introduction to Fire Fighting System and Operational Practical Precautions
- Hazardous Substance Control Procedure Education and Training
- Operating Environment Hazard Awareness and Safety Protective Gear Utilization Specifications
- Personal protective equipment and occupation injury cases advocacy
- Human Musculoskeletal Injury Prevention
- Traffic Safety & Defense Driving Education
- Machine Protection Education and Training
- Confined space Hazard Prevention
- Infectious Disease Prevention and Waste Resource Recycling
- Chemical Injury First Aid Treatment Education and Training
- Respiratory Tract Infectious Disease & COVID-19 Prevention Online Education and Training Course
- Revised Greenhouse Gas Inventory Education and Training
- CPR+AED Education and Training

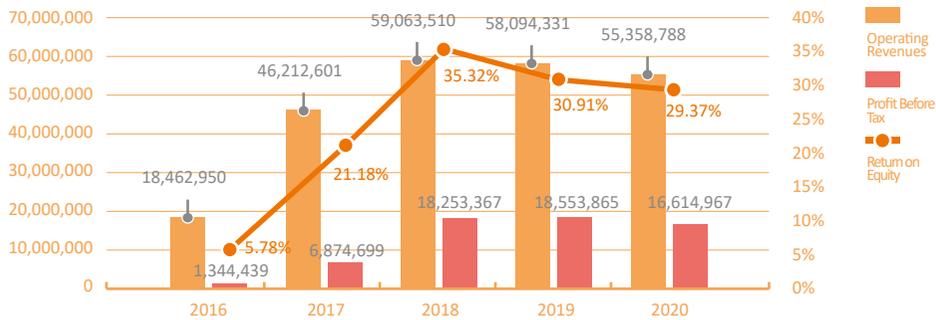
2.3 Operation Performance

In 2020, the global economy entered a recession due to the impact of COVID-19, but outlook for the semiconductor industry remains upbeat. GlobalWafers has maintained a consistent and stable performance, with outstanding results in terms of revenue and profit. GlobalWafers' consolidated revenue for 2020 reached NT\$55.359 billion, which decreased by 4.71% compared to that of 2019 and is the third highest in history.

For detailed on the Company's operating performance and financial information, please refer to GlobalWafers' [2020 Consolidated Financial Statements](#).

Financial Performance (Consolidated)

Unit: NT\$ Thousand



Cash Dividend

Unit: NT\$ Thousand



2020 Economic Value Analysis

Unit: NT\$ Thousand

Generated direct economic value	Annual report: income	55,358,788
Distributed economic value	Operational costs	34,790,674
	Employee salaries & benefits	10,939,957
	Payment to investors	10,880,925
	Payment to the government	1,811,043
	Community resources	270

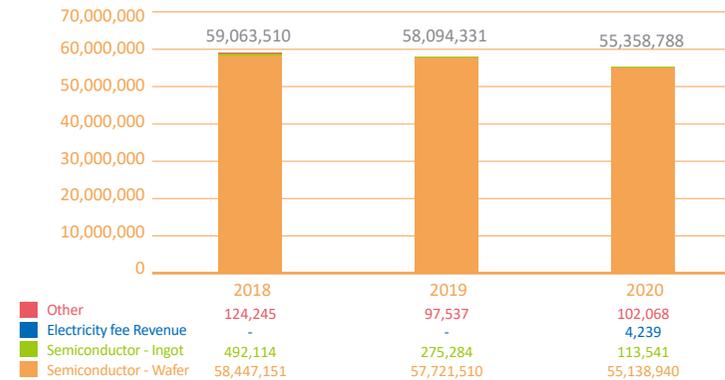
Note: Government payments and community information are based on data from Taiwan (GlobalWafers Headquarters, GlobalWafers Zhunan Plant, and Taisil Branch)

Product Sales

The COVID-19 epidemic and the geopolitical trade conflicts shrouded the year 2020, and many industries have suffered. Fortunately, the semiconductor market is relatively undisturbed by the downfall of the world economy. COVID-19 has also driven new business practices and lifestyles, stimulated the development of basic Netcom facilities such as the Cloud and servers, and boosted GlobalWafers' quarterly growth in terms of revenue and shipments. GlobalWafers' consolidated revenue in 2020 has reached NT\$55.359. Although the strong NTD appreciation has caused the annual revenue to decrease slightly by 4.71% compared to that of 2019, the full-year revenue for 2020 is similar to that of 2019 and showed only a slight decrease of 0.26% if calculated in U.S. dollar. GlobalWafers had an outstanding performance in 2020 with annual revenue, operating gross profit, operating net profit, net profit before tax, net profit after tax, and earnings per share ranking at the 3rd-highest in history! Among them, the after-tax net profit margin has set the highest record since the Company was founded, fully demonstrating GlobalWafers' outstanding management and operation capabilities.

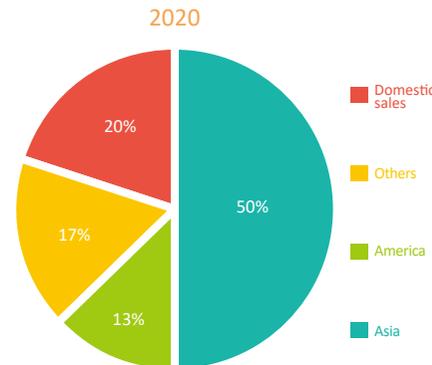
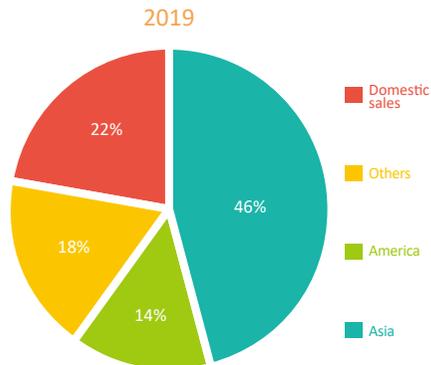
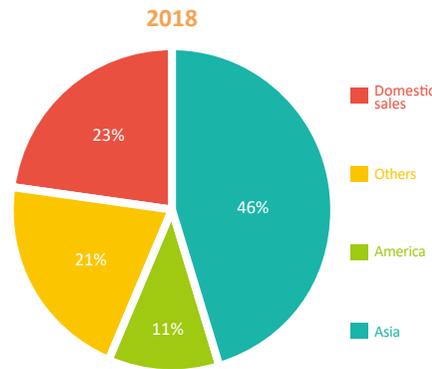
Revenue

Unit: NT\$ Thousand



• Sales Area Ratios

Since GlobalWafers acquired Topsil and SunEdison in 2016, it has successfully gained the existing customer orders and a global sales network. In recent years, the sales revenue ratio of sales regions has tended to be balanced and stable. Asia is the largest sales region whereby domestic sales accounted for 20%, followed by the Americas.



• Overall Economic Environment and Industry Trends

The COVID-19 epidemic and the geopolitical trade conflicts shrouded the year 2020, and many industries have suffered. Fortunately, the semiconductor market is relatively undisturbed by the downfall of the world economy. COVID-19 has also driven new business practices and lifestyles, stimulated the development of basic Netcom facilities such as the Cloud and servers, and boosted GlobalWafers' quarterly growth in terms of revenue and shipments. The accelerated 5G deployment is expected to stimulate the smartphone replacement wave and hasten the digitized long-distance communication / life model, and the self-driving electric vehicle development trend provides impetus for automotive market recovery. The global semiconductor chip demand is expected to continue to rise, but it remains uncertain if the COVID-19 epidemic can be effectively controlled, and the epidemic's impacts on the overall global economy and individual industries remain to be seen. GlobalWafers will continue to take advantage of its operating sites worldwide, keep abreast of the latest development status, and operate with caution.

2.4 Risks Management

In response to the rapidly changing management environments and to ensure the company's stable management and sustainable development, GlobalWafers has stipulated in 2015 risks management policies and risks management guidelines. The three major objectives of the risks management system stimulation:

- Proactively engage in all businesses to enhance the quality and quantity of income, within the limits of acceptable risks standards.
- Strengthen the width and depth of risks control and management and respond, when necessary, with negative listings regarding standardized and key principles
- Thoroughly facilitate systems, computer operation and disciplines to ensure the compliance with risks control and management

GlobalWafers' risks management procedure includes risks identification, risks assessment, risks supervision, risks reporting and disclosure, and response to risks. With this risks management procedure, we aim to effectively implement and facilitate the company's risks management strategies.



GlobalWafers has stipulated an assessment method as the basis for risks management. Regarding quantifiable risks, we have adopted a rather stringent statistics analysis and technique for analysis management and manage such quantifiable risks using a progressive method. With risks that cannot be easily quantified, we assess them using the qualitative method, i.e., linguistic description to express the possibility and impact of a risk occurrence. Relevant operation and risks management information is also disclosed in the Company's annual report and the company website.

GlobalWafers Operation Risk Management System operates according to the level-3 division of labor risk management structure

Tier-1 liability	Tier-2 liability	Tier-3 liability
<ul style="list-style-type: none"> • The person in charge of each department or business operation is the risk liability holder for the said operation and must comply with the internal guidelines in business operation as the preliminary unit for risks discovery, assessment, and control. 	<ul style="list-style-type: none"> • The head of each department is responsible for the risks management of their relevant business as well as tracking and reviewing whether all operation details are compliant with laws and regulations. 	<ul style="list-style-type: none"> • The President's Office shall examine the completeness of the risks management mechanism for company hazards, operation, finance, strategies, legal compliance, and contract compliance while supervising the relevant risks for each department.

GlobalWafers has established an effective risks management mechanism to assess and supervise its ability of withstanding risks and status of risks sustained, and to determine risks-responsive strategies and the risks management procedure compliance status. The ESG risks and opportunities that we have identified are illustrated below.



Economic Aspect

Identified risks

- Strategies of turning risks into opportunities

All risks involving management and investment

- Proactively establish a comprehensive up-, middle- and down-stream integrated supply chain to expand the operation scale and disperse operation risks via multi-angled management strategies.
- Establish an automatic feedback production analysis system to improve process stability, optimize quality, and reduce costs
- Continue to invest in advanced technology R&D, and commit to enhanced performance of key materials for power components so as to widen the gap from the competitors.
- Invest in the development of key technologies for GaN RF components as a response to the market demand for IoT and 5G mobile telecommunication.

Risks of corporate governance

- Implement corporate governance policies, stipulate relevant governance guidelines, design punishment and appeal systems, facilitate corporate social responsibility to demonstrate GlobalWafers' commitment and determination in pursuing sustainable operation.



Environmental Aspect

Identified risks

- Strategies of turning risks into opportunities

Mitigation

- The management is conducted in two major aspects: mitigation and regulation.
- Promulgate the ISO50001 energy management system to supervise the equipment for major energy use and plan energy action improvement plan.
- Promote green products and green production to reduce energy consumption.

Climate change risks

- Implement water-conservation measures and increase the use of reclaimed water

Regulation

- Strengthen the company's withholding capacity for extreme climate conditions (drought, floods, snow storms).
- Conduct energy management and enhance energy consumption efficiency as a response to increased energy costs (e.g. rising electricity bills, carbon tax, energy tax).

Risks for environmental protection

- Install the pollutant emission supervision system; devote to pollutant reduction
- Strength the risk control for turning waste into resources and reuse; use regenerated raw materials as much as possible



Social Aspect

Identified risks

- Strategies of turning risks into opportunities

Challenges for relationship maintenance and communication with internal & external stakeholders

- Strengthen the Stakeholder Engagement on the company website; build a communication channel with our stakeholders so as to understand and respond to issues of concern to all stakeholders.

Risks for occupational health and safety

- Conduct hazard identification and risks assessment plus risk reduction measures, stipulate relevant management procedures and handling guidelines, and implement emergency response drills on a regular basis
- The Company has conducted regular health and safety education and training to prevent occupational hazards and protect labor safety and hygiene.

Risks for labor health

- Regarding particular operations prone to health hazards, special physical check-ups are offered to employees who are newly recruited or undergoing job changes. Annual special health check-ups are conducted, and labor operation environment supervision is implemented.
- To strengthen employees' health awareness, we have held sporadic employee health management and health promotional events in order to share information on major illnesses or health and enable our employees access to comprehensive health information.

Risks for labor-management relationships

- Labor-management communication: The Company attaches great importance to the rights and interests of employees. So, before any important decisions are made, the Company will notify the affected employees via labor-management meetings, electronic newsletters, or personnel announcements in order to protect their rights and interests.
- Interviews with new recruits: Through interviews, we can more directly understand the employees' working status in the Company, shorten the time it takes for new recruits to get used to the work, and reduce labor-related risks.
- Employee complaints channel: Assigned designated personnel to handle employee opinions and problems raised by employees in a timely manner in order to reduce labor-management conflicts

In addition, GlobalWafers has identified 3 major emerging risks in 2020: climate change, information security, and epidemic infectious diseases. The Company has formulated corresponding risk strategies and implementation mechanisms for all aspects its corporate operations based on their possible impacts to ensure that the risks can be effectively controlled.

• Climate Change Risks and Opportunities

In December 2015, nearly 200 countries have strengthened their response to the threats posed by climate change via the “Paris Agreement,” and greenhouse gas emission mitigation has become a key topic for global economic development. In June 2017, the Financial Stability Board (FSB) has published the Task Force on Climate-Related Financial Disclosures (TCFD). We have followed the 4 core elements (governance, strategy, risk management, indicators & goals) under the framework recommended by the TCFD to reveal the climate change related information.

Climate-Related Financial Information Disclosure Framework



GlobalWafers’ Corporate Sustainability Development Committee members have collected the risk and opportunity information related to climate change, and integrated the stakeholders’ concerns. The Corporate Sustainability Development Committee team members would identify and score the topics, and report the results in the Corporate Sustainability Development Committee meeting held every year. The relevant team members would then formulate the management practices and goals in response to the risks (major topics), and report the results to the board of directors.

Climate-related Risks and Opportunities

Type	Climate-related risks	Potential financial impacts
Transformation risks	Policy and regulations Greenhouse gas emissions disclosure Current and revised energy regulations	Increase operating costs Policy changes leading to write-offs and early scrapping of existing assets
	Technology New/low carbon technology investment and transformation	Capital investment in technology development Novel and alternative technology R&D expenditure
	Market Preferences and changes in customer behavior Rising costs for raw materials and waste disposal	Changes in consumer preferences resulted in a decline in demand for goods and services Changes in income combinations and sources Investment cost increase
	Reputation Industrial stigmatization	Decline in demand for goods/services
	Physical risks	Immediacy Increased frequency and severity of extreme weathers (typhoons, heavy rainfalls) Long-term Average temperature rise

Response measures and goals
<ul style="list-style-type: none"> Regularly track and check the greenhouse gas emissions trend for the factory every year Continue to track, identify, and respond to changes in laws and regulations Promote various energy-conservation and carbon-reduction measures, and develop low-carbon and renewable energy application ratios <ul style="list-style-type: none"> Invest to replace old equipment in the factory area. Adopt advanced reduction technology to extend the actual carbon reduction benefits. Continue to formulate energy-conservation measures, and the annual energy-saving rate of each plant area must be at least > 1% each year. Actively develop green energy farms Energy / resource consumption management and waste disposal to improve resource utilization efficiency <ul style="list-style-type: none"> Residual silicon crystal ingots are returned to the furnace for reuse. Recycling of industrial waste cutting oil. recycle and reuse of packaging materials and wafer boxes. Lapping waste is used to grind silica mud and turn it into secondary materials for the glass industry. The slice/lactic acid hot water degumming case uses hot water to replace chemical degumming as the medium. R&D and optimization of products and services to enhance the innovative material/technology development <ul style="list-style-type: none"> Silicon wafer process optimization has switched from Slurry to DW in order to improve production efficiency, and significantly reduce the amount of carrying agent used as well as the waste cutting oil (mud) output. Reputation <ul style="list-style-type: none"> Participate in regional circular economy proposals and competitions. Promote the green factory label system, and guide the industry to enhance green competitiveness and green corporate image.

Type	Climate-related opportunities	Potential financial impacts
Resource efficiency	Recycle & reuse Reduce water resource consumption	Reduce operating costs
	Energy source Use of novel technologies	Reduce operating costs
Products and services	R&D and innovation of products and services Business activity diversification	Improve competitive position in response to consumer preference changes
	Market Make good use of public sector incentives	Partner with the public sectors to enter new markets and increase revenue Reduce operating costs
Resilience	Energy plans and energy-saving measures Resource substitution and diversity	Reduce operating costs

• Information Security

According to the 2019 World Economic Forum Risk Report, large-scale cyber-attacks and data theft have become one of the top 10 risks. In 2020, many well-known companies worldwide and in Taiwan have all experienced virus extortion incidents that resulted in significant losses. Therefore, companies have strengthened their information security operations without delay. GlobalWafers has continued to optimize its information security management system and enhance its information security defense capabilities in order to ensure effective information security practices while reducing the risks of ever-changing and novel information security attacks. The Company has adopted the PDCA cycle operation model to achieve the objectives and provide continuous improvement, established information security monitoring and vulnerability scanning systems to prevent external hacker intrusions and internal secret theft, and implemented strict software and hardware control (including Internet and personal information equipment) to ensure personal data and internal confidential data protection and security.

The information security management and control mechanisms are implemented in 3 major aspects (as follows) to ensure effective information security protection and reduce risks.

1. Information System Security Management

- Installed endpoint protection software on servers and personal computers or laptops, and automatically updated virus definitions or signatures.
- Constructed e-mail security gateway equipped with information security modules such as spam filtering, malicious file detection, and phishing e-mail detection in order to enhance e-mail attack protection.
- Important systems and databases are regularly backed up and stored off-site to ensure data availability.
- Established a firewall in the internal network and set up firewall rules to protect important information systems.
- Performed annual disaster recovery exercise drill for important application systems.

2. Information System Access Control

- Strict control for the application system and file access setting permissions to ensure information confidentiality.
- Formulated and implemented account/password complexity principles, and updated passwords regularly to ensure the validity of identity authentication.
- For employees who have resigned and changed departments, the information department would adjust the permissions according to document instructions to ensure real-time and correct data permission & authorization.
- System service providers who perform system maintenance via remote login must go through the application process to gain permissions before connecting to the system and recording the processing status.

3. Network Security Management

- Established a firewall to protect the network's external connections, and analyzed the firewall's anomaly records to strengthen protection.
- A multi-loop mechanism is adopted to connection to the Internet and the Company's internal network interface in order to prevent disconnection.
- An information service monitoring platform has been set up to monitor network traffic and connection status, which can resolve any network related problems in real time.
- The information department delivers security reminders to all colleagues irregularly to remind them to stay alert for incoming e-mails in order to prevent the increasingly serious phishing and malicious fraud letter problems.
- The internal staff's computers all must have anti-virus software installed. Once the anti-virus control platform finds a virus, it will send a computer virus removal notification letter to the IT personnel.
- VPN connection verification is required in order to connect to the internal network from outside, and a two-stage verification method is used to ensure information security.

• Infectious Disease Prevention

COVID-19 has ravaged nations worldwide in 2020, and GlobalWafers has initiated its epidemic prevention measures at first instance. All of the departments have cooperated to execute comprehensive epidemic prevention operations, formulate epidemic prevention strategies for the plant areas, perform categorization measures and epidemic prevention resource inventory operations, and hold regular meetings to formulate epidemic prevention response measures in order to ensure that the workplaces are healthy and safe.

• Epidemic prevention information:

To enable employees to fully grasp the real-time epidemic prevention information, the Health Management Center has regularly issued global epidemic information and in-plant epidemic prevention measures to enable employees to quickly receive the correct epidemic prevention information.

• Health monitoring:

Temperature monitoring is implemented at all plant entrances. In case of a fever or suspected contact history with any infected, entry into the factory is strictly prohibited. In addition, internal electronic questionnaire surveys are implemented in collaboration with the central command center to fully grasp the travel history of the infected, and fulfill employee proactive notification and independent health management objectives.

• Visitor management:

Use e-mails and paper fliers to advocate on-site epidemic prevention measures to the supply chain manufacturers, require visitors to fill-in the health declaration form prior to entry, and wear masks to protect the safety of employees.

• Office epidemic prevention:

To prevent the infection risks due to crowd gathering, office workers have taken a number of contingency measures such as: crisscross seating, cabin separation, traffic flow diversion, and work from home in order to minimize crowd gathering and reduce the frequency of employee contact.

• Safe dining environment:

The Company has planned epidemic prevention dining lines, table plastic partitions, disposable lunch boxes, and divided the dining area by units to ensure worry-free meal dining safety in the plants.

• Disinfection in the plants:

The Company has formulated public area disinfection and cleaning measures, increase internal ventilation, encourage staff to open windows for confined spaces, affixed adhesive films on top of frequently used buttons, added partitions in restaurants, increased dry-cleaning equipment, and posted correct hand-washing instructions in all restrooms.

• Employee care:

The Company provides care and follow-up tracking for high-risk groups, conducts body temperature recheck follow-up management and control, and offers outpatient psychologist services when necessary to assist employees to alleviate negative emotions and pressure.



An aerial view of a city skyline with a blue overlay. The buildings are rendered in a semi-transparent style, and the overall color palette is dominated by light blues and whites. At the bottom of the image, there is a stylized bar chart with several vertical bars of varying heights, also in a light blue color.

03 Innovation and Service

3.1 Innovation Management

3.2 Product Quality

3.3 Customer Services

3.4 Industry Supply Chain & Management

Major Aspects for Consideration

Product quality, customer service, and privacy

Significance to GlobalWafers

GlobalWafers adheres to sustainable operation ideals and continuously work for customer satisfaction and customer information security, in addition to maintaining operational performance with stable growth. We start with customer demand and hope to develop innovative services in line with GlobalWafers' corporate ethics. Similar to GlobalWafers' quality policy, we are also committed to continual improvement and excellence in order to provide the best quality, technology, and comprehensive services to enhance product quality and competitiveness. The Company aims to grow together with its customers, pursue excellence with employees, create value for shareholders, and pursue sustainable operations with our customers. The ultimate objective is to provide customers with zero-defect products and services with outstanding product quality, production technology, and manufacturing.

Management Mechanism

Continue to promote the quality management system, uphold the spirit of TS/IATF 16949 and actively participate in quality management efforts, and pursue a full range of continuous improvement and precise process technology in order to enhance product quality.

1. Each plant has established a Quality Improvement Team (QIT) composed of members from various functional departments to ensure process research and product quality improvement. Performance reports are submitted every 6 months to the QIT results publication appraisal conference, and the review subjects include innovative creativity; cost-effectiveness; lean production; product competitiveness; customer satisfaction; customer complaint cause analysis, review, and improvement; and quality index process capability.
2. To combine and inspire the knowledge and experience of Company employees at all levels, GlobalWafers has established the "Proposal Improvement Committee" to enable all employees to propose improvement opinions, inventions, ideas, or plans that may benefit the Company. The goal is to help the Company to reach a state of perfection through continuous improvement, and enhance the image and competitiveness of Company products.

The Company has obtained the Taiwan Intellectual Property Management System (TIPS) AA certification by strengthening information security standards, preventing Company secret leakage, protecting the rights and interests of the Company and its customers, controlling product quality via a comprehensive customer-oriented process, and providing product manufacturing services that meet customer quality needs. Meanwhile, we think from customers' perspectives, emphasize customer-oriented services backed by professional technology, hoping to provide services that meet or exceed customers' expectations.

2020 Key Achievements

1

GlobalWafers Group has obtained 1,464 valid patents over the years

2

In the Taiwan Quality Control Circles (OCC) competition, Won 1 Gold and 1 Silver

Future Goals(Year 2021)

Continuously improve quality and focus on product development to enhance customer satisfaction

↑ level up



↑ level up



↑ level up



3.1 Innovation Management

In addition to the contribution of the new plant in South Korea and the U.S. plant to increase SOI silicon wafers, the growth momentum of GlobalWafers for the next few years also include equipment replacement during the second phase of the Hsinchu Science Park plant to invest in 12-inch silicon wafers for advanced processes and expand R&D centers to develop advanced compound semiconductor materials including silicon carbide (SiC). The application areas of silicon carbide with good heat dissipation include 5G, high-power components, high-frequency and high-voltage, and automotive electronics. In the future, the proportion of automotive semiconductors will rise significantly. These products will mature in 2021 and become the new growth momentum for GlobalWafers.

In terms of Product R&D, GlobalWafers aims to significantly enhance the production capacity and technology of high-end semiconductor wafers dedicated to advanced processes as well as accelerate the development of SiC wafers and semi-insulating SiC required for new technologies such as 5G, power electronics, and electric vehicles. The Company also intends to expand the establishment and R&D capacity for Taiwan’s wafer R&D center, invest in domestic green energy development, and increase the green energy utilization ratio for semiconductor wafer processes. Products can be classified into three major products based on product types. The following is an explanation of development directions for these three major products:

• GlobalWafers’ Product Development Direction

1. Integrated Circuit Wafer Materials :

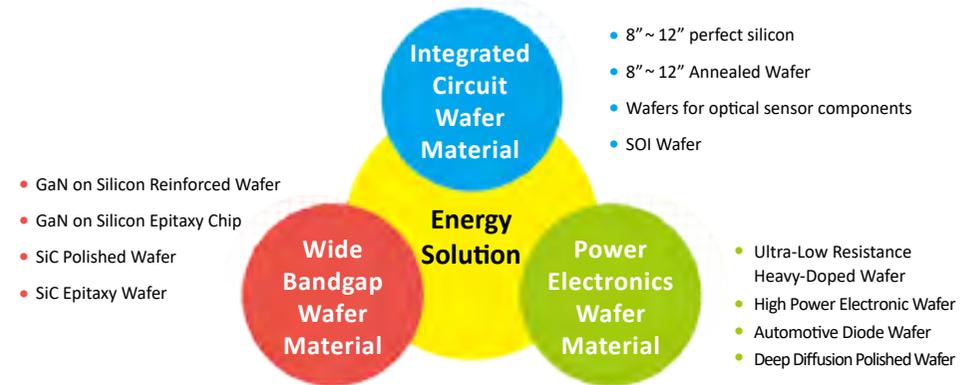
Main products are 8”~12” perfect silicon, 8”~12” annealed wafers, optical sensor device wafers and SOI wafers. Large-size wafers are mainly utilized for integrated circuit device manufacturing. This includes 5 major categories of devices of Bipolar Digital, Memory, Micro, Logic and Analog. When manufacturing process continues to micronize and requirements on silicon wafer defects and surface cleanliness and flatness have become more stringent, crystal pulling technology (for example, amount of oxygen density and micro-defects) enhancement and wafer processing technology breakthrough during the silicon wafer manufacturing process have therefore become more important. When wire width for integrated circuit manufacturing process is becoming smaller each day, quality requirement on silicon wafers is also becoming more stringent. In the field of integrated circuit wafer material, GlobalWafers shall continue to develop wafers compliant with advanced integrated circuit manufacturing process requirements while providing customers with the best services and options.

2. Power Electronic Wafer Material :

Wafers for power electronic devices include low-resistance heavily-doped wafers, high power electronic wafers, automotive diode wafers and deep diffusion polished wafers. These products are used in the field of silicon-based power semiconductor. During the period from 1985 to 2020, compound annual growth rate (CAGR) for global power transistors is 7.8%. Despite COVID-19 became global pandemic and negative impact on the economy, global sales of discrete device products rebounded by 2% in 2020, which the main reason is that system manufacturers and pathway providers replenished inventories that are about to dry up after the end market appeared to stabilize in the second half of 2020. Sales of discrete device are expected to gain momentum in 2021, with a CAGR of 3.9% between 2020 and 2025. By 2025, the market share of power crystals in discrete device will continue to climb to around 65% of total sales. Among all the discrete devices, the revolution in material conversion is ongoing, and GaN and SiC technologies are replacing some silicon transistors and more diode products to improve products’ performance. GlobalWafers plays a leading role in this field and will continue to strengthen the development of related products and technologies in the future.

3. Wide Bandgap Wafer Material :

Wide bandgap power device comes with many advantages which include features of high electric breakdown field, high saturated electron drift velocity and superior heat dissipation. These features make wide bandgap device more suitable for applications in high power, high frequency and high temperature environments. Utilization of wide bandgap power device can lower energy consumption during conducting and switching, and the power consumption for the system’s overall operation can be reduced by half. Additionally, given the features of lowered energy consumption and excellent heat dissipation, volume and weight for the system using wide bandgap power devices can be reduced dramatically. Currently, new materials such as SiC, GaN and Ga2O3 are being regarded as materials for next-generation power semiconductor. GlobalWafers has invested in the research of developing GaN and SiC wafers. Currently, the company is already providing customers with silicon wafer substrates, which is exclusive for GaN on silicon, and GaN on silicon Epitaxy wafers for their device design and development. Developments for SiC polished wafers and Epitaxy wafers shall continue. For these two new materials with explosive growth, we shall continue to invest in development resources. In future, GlobalWafers will be able to provide various types of wafers for energy applications and total solutions for customers.

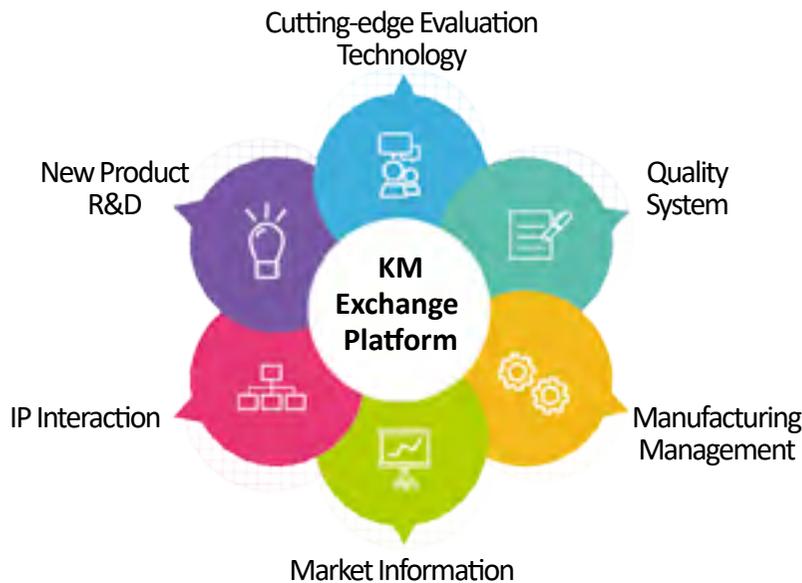


• Research Resources

Product development takes time, manpower and resources. It takes resources and support from numerous parties for a product development to come to fruition. For small companies with insufficient resources, how to utilize small resources is prerequisite to creating maximum benefits.

Internal Resources

GlobalWafers has a total of 17 operating production bases distributed throughout 9 countries worldwide as well as customers in Europe, Asia, and the Americas. Faced with globalized competition, grasping information and sharing resources sharing will be conducive to more efficient and accurate strategies. Therefore, GlobalWafers has established inter-factory KM interaction platform which enables interaction amongst factories by communicating/sharing information and technologies. On this interaction platform, resources and supports can all be obtained for technology issues, market information and product development, manufacturing management, quality management and IP patent related activities faced by respective factories. In the meantime, enhancement for respective factories' capability is facilitated accordingly through internal competition mechanism established by this interaction platform.



Internal Resources - KM Exchange Platform

External Resources

Taiwan has excellent academic resources and has accumulated large amounts of profound knowledge regarding fundamental researches and scientific applications. Infusion of academic research energy through academia-industry collaboration can supplement the company's technology insufficiency in the product development process. On the other hand, Taiwan has a complete ICT industry chain. Through up- and down-stream integrated operation, we are able to facilitate mass production during the product development stage. Furthermore, to facilitate industry upgrades and practical application of academic researches, governmental bodies provide extremely huge research funds each year to subsidize academia-industry collaboration on new products and new technologies development. Since 2015, the Taiwanese government has started the guidance program promoting industry upgrades & innovation platform, and assists industries in undergoing structural via four major development strategies (enhancing product value, supplementing critical supply chain, developing systems and incubating emerging industries). GlobalWafers headquarters utilizes external resources through academia-industry collaborations with academic institutes, commissioned researches with research agencies, as well as implementing national projects via subsidy application to national institutes and conducting strategy alliances with industry players. External research consultant groups composed of these external resources work together to solve technological issues arising out of the product development process and conduct verification on research products.



External Resources

Corporate sustainable operation and continued profits are every enterprise's expectation. However, century-old enterprises may vanish too when faced with global competition and technology evolution and loses its driving force for progressive operation. A company will go with the tides and continue to grow and make profits if its operation strategies are aligned with the development of the trends. With respect to research strategies, it is necessary to continue with in-depth cultivation on core technologies and core competitiveness, supplemented with technology trends and market information as the development direction. The company can thus achieve the goals of sustainable operation via integrated internal and external resources and maximum benefits through minimum investment, plus sound management of intellectual property protection and utilization.

R&D Strategy and Company Operations



Intellectual Property Management Guidelines

In 2013 GlobalWafers' intellectual property management system adopts the Taiwan intellectual property management system and has passed the TIPS (Taiwan Intellectual Property Management System) basic certification, and continued to pass advanced certifications in 2014 and 2015, as well as AA-level certification in 2016. Continued to pass the AA verification in 2017, 2018, and 2019. With the promotion of TIPS, we have established intellectual property goals, provide employees with intellectual property rights education and training and enhance information security guidelines. In so doing, we strengthen our patent deployment, reduce infringement risks and prevent confidential information leakage, so as to protect the rights and interests of the company and our customers. In the era of technology-based competition, intellectual property rights are a niche instrument in the competition of next-generation product development. GlobalWafers has aggressively promoted patent deployment and planning in the fields of various critical technologies and accelerated the development of our own core technologies. GlobalWafers has currently obtained 254 valid patents. If its other overseas subsidiaries are counted, the total number of valid patents obtained by the entire group have reached 1,464 (as of the end of 2020, including the number of applications in progress and the number of patents obtained).

The total number of valid patents obtained by the entire group have reached **1,464**



3.2 Product Quality

GlobalWafers adheres to the spirit of never-ending improvement and excellence, provides the best quality, technology, and comprehensive services to enhance the quality of products and competitiveness. The Company aims to grow together with its customers, pursue excellence with employees, create value for shareholders, and pursue sustainable operations with our customers.

To ensure the effective implementation of strategic operations, GlobalWafers has promulgated the "Quality Policy" to serve as the creed for all employees. We are committed to continuous improvement in all aspects in order to achieve the ultimate quality, technology, and manufacturing excellence. Our goal is to provide customers with zero-defect products and services.

• Enhancement of Company Improvement Culture

Each GlobalWafers plant has actively invested in quality management activities, pursued comprehensive improvements, and refined process technologies to enhance product quality. Each plant has established a Quality Improvement Team (QIT) composed of members from various functional departments to ensure process research and product quality improvement. The improvement results include innovative creativity; cost-effectiveness; lean production; product competitiveness; customer satisfaction; customer complaint cause analysis, review, and improvement; and quality index process capability. Its goal is to achieve perfection in order to enhance the image and competitiveness of the company's products through continuous improvement and progress. We aim at zero-defect as our permanent goal, and continue to improve and grow with our customers in order to become their No. 1 choice.

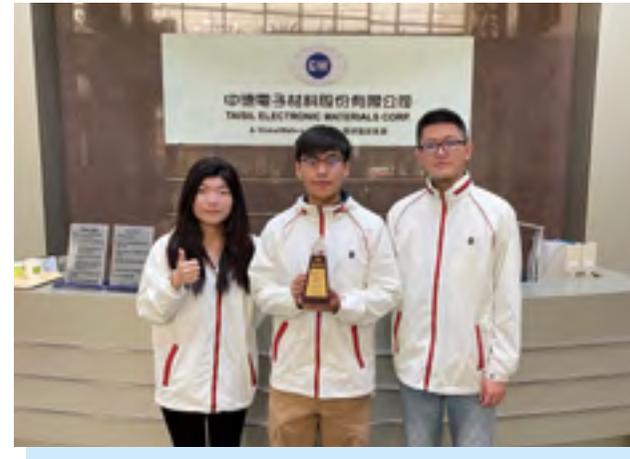
GlobalWafers has participated in the 2020 "Taiwan Continuous Improvement Competition" and won the Gold Tower Award for the Self-improvement Category of the Self-improvement Group as well as the Silver Tower Award for Project Improvement Category of the Unity Group. We will continue to improve and refine our engineering technologies.



Wafer-Forging Circle: Gold Tower Award

Improvement topic

6-inch arsenic production capacity Increase the target monthly production capacity: 7377kg Achievement rate: 138%



Crystal Polished Ring Silver Tower Award

Improvement topic

Reduce the defect rate of polished silicon wafer surface height difference, the defect rate is reduced from 4.33% to 0.42%, which improved by 90%

3.3 Customer Services

Customers are GlobalWafers' valuable assets. They are also the company's important partners along the way to growth. In addition to maintaining operation performance, enhancing the company's core value and pursuing advanced technology and stable quality, we also provide comprehensive customer service and maintain good collaboration relationship with customers hoping that all parties can grow and prosper together, enjoy sustainable operation and achieve social and economic values.

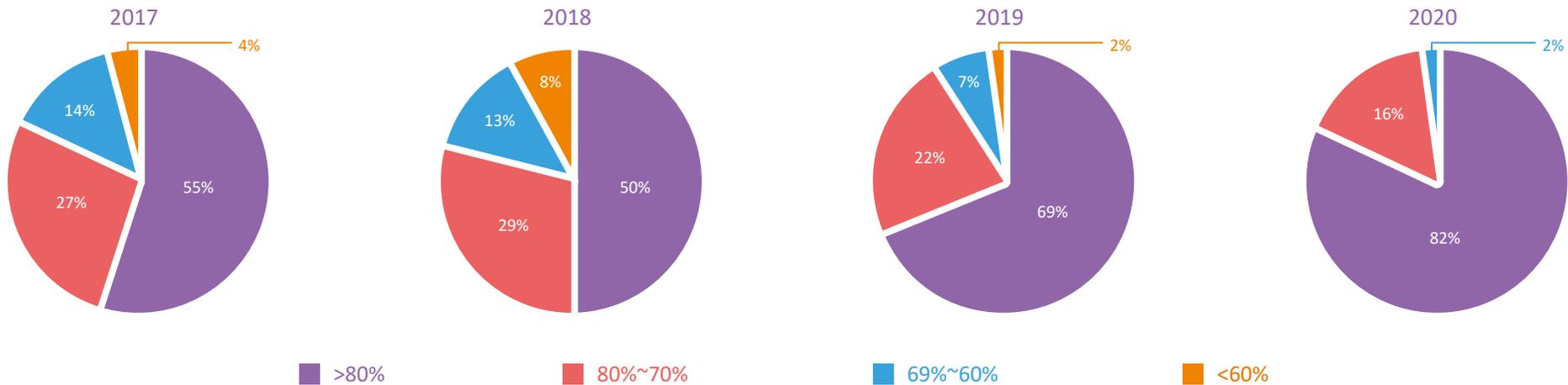
• Customer Satisfaction

GlobalWafers has become the world's 3rd largest semiconductor wafer manufacturer. What contributes to this achievement is customer's recognition and support. Therefore, customer service has always been central to GlobalWafers' work. In order to enhance customer relationship, improve service quality and facilitate technology innovation, we conduct customer satisfaction survey each year focusing on top 20 profitable customers and potential key customers through questionnaire distribution or telephone interviews for the purpose of accessing and grasping customers' needs. Issues that need to be improved are located through survey results, and improvements will be continued in order to achieve customer satisfaction as the ultimate goal.

Contents for our customer satisfaction survey mainly encompass overall impression, business service, product quality and new product openness. Based on customer's feedback, GlobalWafers business team together with other colleagues will establish an improvement plan focusing on issues revealed, and further conduct in-depth discussion with customers in order to complete the customer satisfaction survey process.

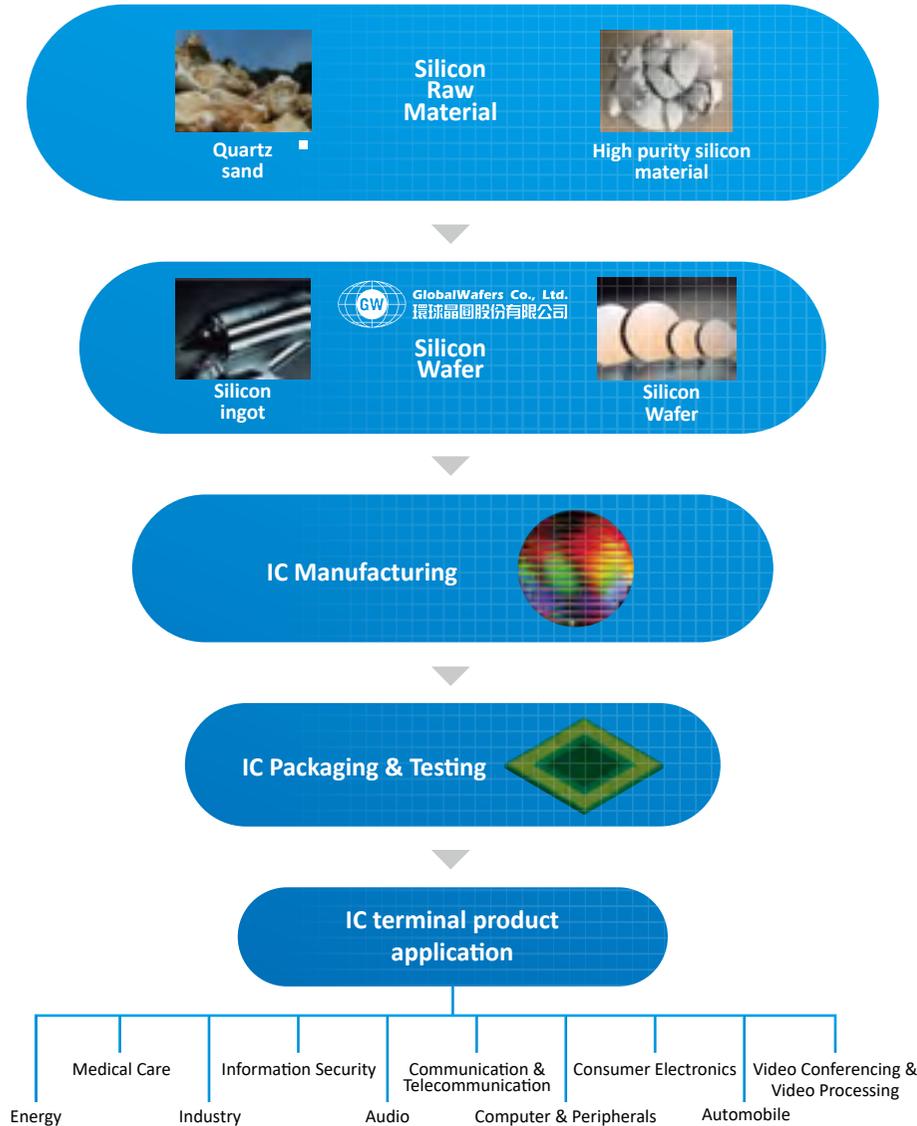
In 2020, the customer satisfaction survey recovery rate reached 95% thanks to the efforts of the various GlobalWafers teams, and 82% of the overall survey scores were ≥ 80 points. Compared to the score of 69% in 2019, the satisfaction rate of ≥ 80 is a significant improvement. This shows that that our efforts to listen to the customers, pursuit of advanced technology, and stable quality have gradually gained customer affirmation. We aim at the permanent goals of continuous improvements, customer satisfaction enhancement and growth with customers.

Customer Satisfaction



3.4 Industry Supply Chain & Management

Upstream and Downstream Supply Chain

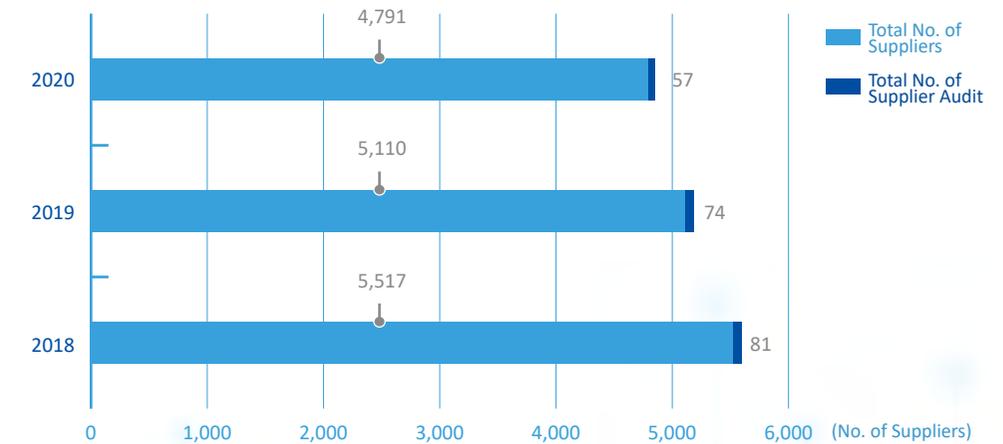


Supplier Assessment Management

Through appropriate supplier assessment operation, qualified suppliers are carefully defined and selected. Close work relationship and feedback system are also established accordingly to ensure raw material, finished product, half-finished product, fixture and tools, technology service and other labor services all comply with quality, environment, safety and hygiene requirements. Our qualified suppliers all need to comply with Code of Integrity Management, with no dishonest behavior records for our suppliers. Each year, we form a supplier appraisal team composed of quality assurance, procurement, environmental safety, R&D, and other relevant department members to perform supplier factory audits, and document reviews. We also conduct interviews with other supervisors and employees to improve the issues discovered and retain the relevant records for inspection.

In terms of supplier on-site audit, approximately 1.2% of the total number of suppliers have received on-site audits in 2020, and a similar ratio of supplier on-site audits has been conducted for the past 3 years.

Number of On-Site Audit Suppliers for Global Factories



• Regulation Requirements

GlobalWafers regularly collects regulation requirements from countries as place of receipt, countries as place of delivery as well as countries as destinations designated by customers to ensure product purchased, procedures and services all comply with laws and regulations requirements applied by countries where subjects are located. In addition, when customers set special controls on specific products due to legal requirements, we will ensure such special controls are implemented and maintained, which include monitoring the suppliers.

In some countries or regions, the source or production of raw materials is subject to the corresponding local laws and regulations of the country or region involved such as the EU RoHS directive, the REACH regulations (restrictions), and the Toxic Substances Control Act (TSCA) of the United States.

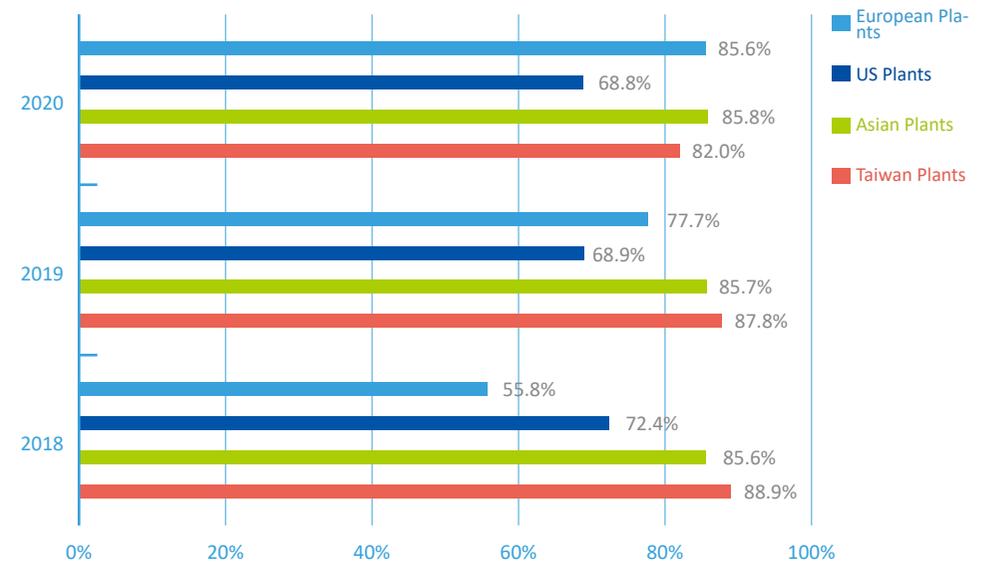
To ensure the company’s quality management system continues to comply with requirements from customer and applied regulation, we regularly implement reviews over compliance with related information and regulations, and make a list of the company’s stakeholders and issues of their concern. We also continue to work with the Conflict-Free Minerals Plan and request suppliers to conduct reasonable due diligence on supply chain to ensure that materials provided to us by supplier are conflict-free, for the purpose of meeting requirements from customers and regulations.

The 2015 “Modern Slavery Act” passed by the British government in October 2015 is applicable to enterprises with annual revenues of £36 million and operating activities in the UK. Our operation activities in respective countries comply with all local laws which include various acts preventing human trafficking and slavery systems. GlobalWafers will never tolerate any behavior of modern slavery system, and insists all its commercial transactions, business relationships and supply chain activities comply with moral requirements, upholding integrity as its highest principle.

• Local Procurement

GlobalWafers’ procurements are roughly categorized into equipment, parts & components, raw material, factory matter and automation equipment. Respective factories conduct their own procurement. We aim at localized supply chain as our goal which can increase supply flexibility and reduce unnecessary costs and supply chain carbon emission, promote green industry development and create local employment opportunities. GlobalWafers production bases are located throughout the regions of the globe. We regard the promotion of local industry development as a critical part of corporate social responsibility. So, we have endeavored to fulfill the local industry development promotion concept.

Ratio of Local Procurement by Plants Worldwide

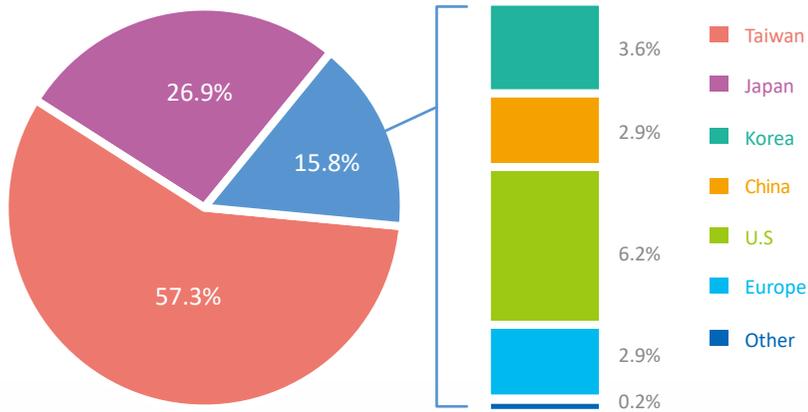


Note: 1. Local Procurement: The factory and its supplier are located in the same country.
 2. Local procurement percentage is calculated by dividing the number of local procurements by the supplier number.

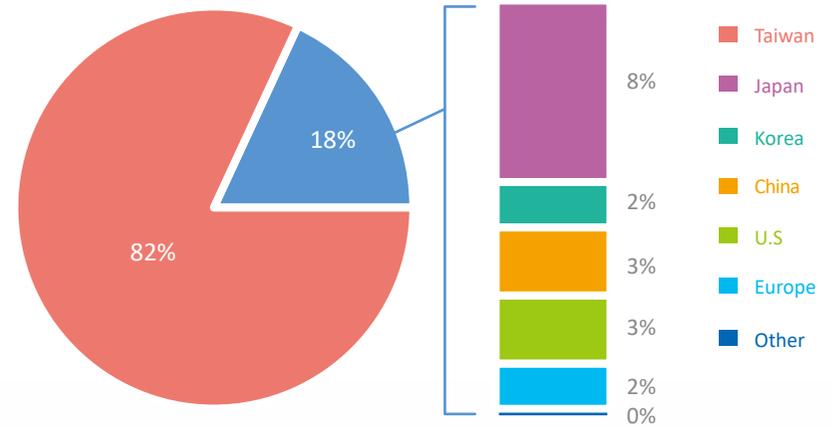


The number of suppliers in the Taiwan region accounted for approximately 30% in the last 3 years compared to that of other plants worldwide. This ratio has not changed much and remained stable. The Taiwan plants' suppliers are distinguished based on the procurement amounts and geographical locations. In 2020, 82% of the suppliers are located in the Taiwan region, and the procurement amount accounted for 57.3%. Japan accounted for 26.9%. Other regions accounted for 15.8%, including 6.2% from the U.S., 3.6% from South Korea, 2.9% from Mainland China, 2.9% from Europe, and 0.2% from other regions.

Amount of Local Purchases by the Taiwan Plant



Supplier Locations Distribution in Taiwan Region





04 Sustainable Environment

4.1 Climate Change Risks and Opportunities

4.2 Waste Management

4.3 Source Reduction

4.4 Pollution Prevention

Major Aspects for Consideration

Significance to GlobalWafers

Under the policy of “Circular Economy” which is promoted aggressively by the government, GlobalWafers is aware that the economic and technological development shall also consider importance of environmental protection, and considers that corporates have the responsibility to share impacts on the environment. As such, GlobalWafers fulfills facilitation on resources recycling in line with the “Circular economic” vision. In addition to the three Rs (Reduce, Reuse, Recycle), we focus more on the 4th R (Redesign), which ensures pre-planning of recycling effects of reduction, reuse and re-application for the product/manufacturing process during its design stage, while continues to enhance pollution prevention technological capability. Self-monitoring is also required in order to achieve the vision of a sustainable environment.

Management Mechanism

GlobalWafers has introduced the product life cycle concept by promoting the ISO 14001 environmental management and ISO 50001 energy management systems. The goal is to reduce raw material consumption at the source starting from the production process and product design phases. We have implemented the environment & energy management system by setting the annual energy-saving and material-saving goals, and continued to execute water recycling and waste reduction measures in order to cherish resources, reduce resource consumption, and achieve the greenhouse gas emission reduction objective. Our plants have continued to conduct the material flow cost analysis (MFCA) in order to achieve effective management by identifying improvement opportunities through production process inventory.

2020 Key Achievements

With respect to prevention of air pollution and water pollution, the company also works with the promulgation of the environment management system. Each year, goals for energy conservation, water conservation, waste reduction and resource saving are established in order to lower energy resource consumption while achieving results of reducing greenhouse gas emission. With respect to waste management, traditional cleaning and disposal are transferred into the concept of effective resource management in order to reduce waste generation. Meanwhile, audit management on waste clearance companies is enhanced to ensure that waste is disposed in an appropriate manner. For regulation compliance, GlobalWafers insists on legal operations and conducts compliance assessment focusing on internal/external environment related issues. Preventive rectification measures will be taken immediately in the event of discoveries of regulatory risks, and policy fulfillment will be ensured through comprehensive management and vigilant operation and maintenance.



CO₂e Emissions in Taiwan
2,522.5 ton - CO₂e



2020 Water Saving
Project in Taiwan Region
31,876.6 metric tons

Future Goals(Year 2021)



Electricity unit
energy consumption
reduction $\geq 1\%$ (base year 2019)



Abnormal event
notification to the competent authority ≤ 1



Greenhouse gas per unit
emission reduction $\geq 1\%$ (base year 2019)



Waste management
(recycling and reuse treatment ratio for the total waste volume) cumulatively increased to 80%



Water consumption
reduction per unit $\geq 1\%$ (base year 2019)

4.1 Climate Change Risks and Opportunities

In the 2020 World Economic Forum Risk Report, the top 5 items are all classified as “environmental” crises. Among them, “extreme weather” has been on the list for 8 consecutive years and ranked #1 for 5 consecutive years while “climate change” has occupied 2nd place for 3 consecutive years. According to the report, COVID-19 is the greatest short-term threat in 2021, but climate change is still one of the biggest long-term concerns. Therefore, global international enterprises and investment institutions are highly concerned about the climate change related issues. They have incorporated the possible climate change impacts into the overall business considerations, estimate the probability and impact of risks, and formulate risk response and mitigation plans as well as the crisis response mechanisms in order to deal with the possible impacts on their enterprise. For this topic, GlobalWafers has continued to support the climate initiatives/carbon neutrality, and planned its own climate roadmaps. In terms of implementation, the Company has continued to implement the greenhouse gas mitigation and adjustment measures in phases from greenhouse gas inventory to energy management, energy conservation, and carbon reduction.

4.1.1 Greenhouse Gas

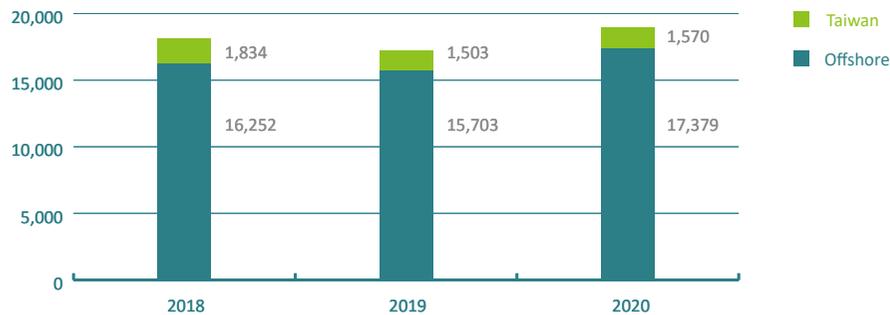
GlobalWafers cares about global climate change and has taken steps to use energy resources prudently and fulfill its corporate responsibilities. The Company has decided to abide by the International Standards Organization’s ISO 14064-1:2018 standard requirement for greenhouse gas management to systematically establish greenhouse gas emission inventories and maintain emission records for each production unit in order to provide future reference for effective improvement management plans.

The Company’s operating boundary includes direct (Category 1: greenhouse gases from process use & fuel use, septic tanks and fire-fighting equipment, and other emission sources), indirect energy (Category 2: purchased energy), and other indirect sources of greenhouse gas emissions (Category 3). In this report, we have disclosed the direct (Category 1), indirect energy (Category 2), and other indirect emission sources (in Taiwan). The gas types included in the calculation cover carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, and sulfur hexafluoride. The source of the GWP value used is from the 5th IPCC Assessment Report (2013).

GlobalWafers’ total greenhouse gas emissions for Category 1 and Category 2 in 2020 are approximately 590,700 metric tons. The main contribution came from Category 2 electricity emissions, which has increased compared to that of 2019 primarily due to the increase of production capacity. However, the plants have continued to implement internal energy consumption management and improvement, which have achieved the energy conservation and carbon reduction effects. Our carbon dioxide equivalent emissions in 2020 is approximately 64,000 metric tons, which has increased by 12.2% compared to that of 2019. Among them, direct emissions (category 1) carbon dioxide equivalent accounted for 3.21% of total emissions, and indirect energy emissions (category 2) accounted for 96.79%. The carbon dioxide equivalent emissions in Taiwan accounted for 28.59% of the total emissions. The energy-saving management plan adopted by the Taiwan region in 2020 has reduced 2,522.5 metric tons of carbon dioxide equivalent emissions.

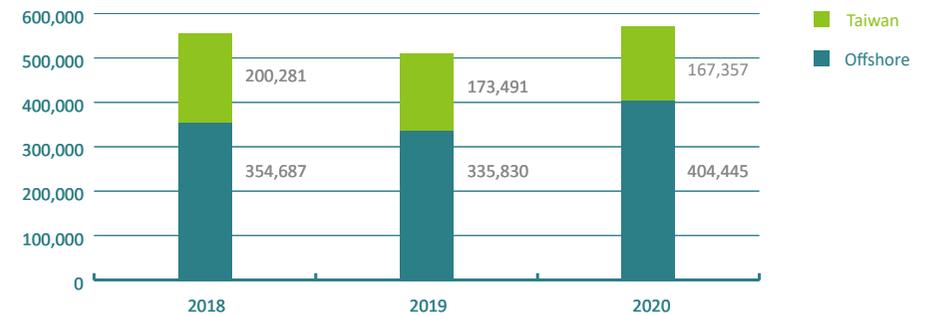
Category 1 Greenhouse Gas Emissions

Unit: Metric Ton



Category 2 Greenhouse Gas Emissions

Unit: Metric Ton



- Note: 1. Taiwan: GlobalWafers Headquarters, Zhunan Plant, Taisil Branch
- 2. Overseas: GlobalWafers Japan Co., Ltd., Kunshan Sino Silicon Technology, MEMC Electronic Materials S.p.A, MEMC Korea Company, MEMC LLC, MEMC Japan Ltd., GlobiTech Incorporated., MEMC Electronic Materials Sdn. Bhd., Topsil GlobalWafers A/S.
- 3. Carbon dioxide equivalent emissions are calculated based on emission factors issued by countries where each factory is located.

• Other Indirect Emission Sources (Taiwan Region)

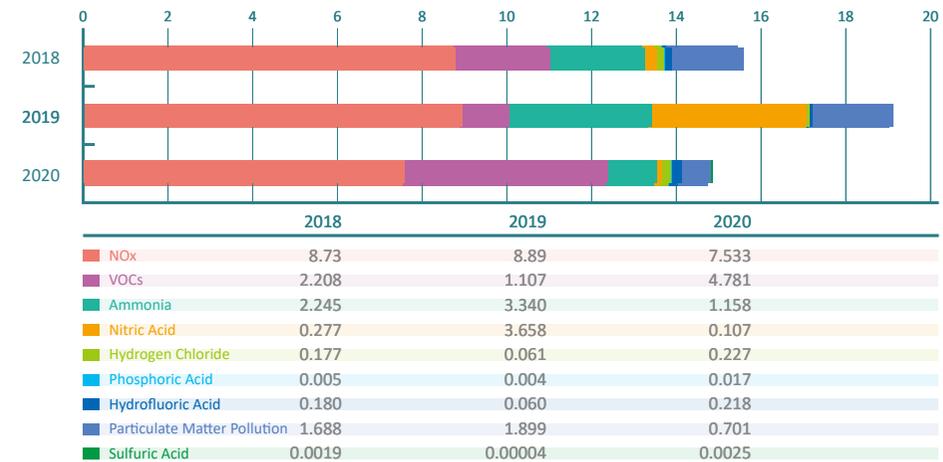
Item	2020 emission volume (ton/CO ₂ e)	Description
Raw material procurement	212,463	Carbon emissions from main raw materials / auxiliary raw materials / packaging raw materials
Fuel and energy related activities outside of scope 1 & 2	36,141	Carbon emission deduction from power consumption, gasoline, diesel, and natural gas usage in each plant area
Upstream raw material transportation and distribution	1,771	Carbon emissions during the transportation stage for main raw materials / auxiliary raw materials / packaging raw materials
Waste produced from operations	583	Total carbon emissions from wastewater/waste generated by each plant
Employee business trips	7	Carbon emissions generated by employees' domestic and foreign travel
Employee commuting	740	Carbon emissions generated by employees' commuting to work
Downstream product transportation and distribution	5,235	Carbon emissions from product transportation to the customer
Total	256,940 (ton/CO₂e)	

• Other Significant Gases

Our fixed pollution source emissions in Taiwan include nitrogen oxides, acid waste gas (hydrogen chloride, nitric acid, phosphoric acid, hydrofluoric acid), ammonia, volatile organic compounds, and particulate pollutants. Among them, emissions of nitrogen oxides, ammonia, and volatile organic compounds have exceeded 1 metric ton in 2020.

Other Gas Emission Volumes in Taiwan Region

Unit: Metric Ton / Year



- Note: 1. Taiwan: GlobalWafers Headquarters, Zhunan Plant, Taisil Branch
- 2. GlobalWafers Headquarters & Zhunan Plant have no NOx pollutants
- 3. The annual emissions of particulate matter, inorganic acids, and alkalis are estimated based on the test report data from a third-party qualified laboratory; and the annual emissions of volatile organic compounds are calculated based on the test report results
- 4. Regular pollution source emission matter is disclosed in accordance with the regular pollution source operation permit.

4.2 Waste Management

GlobalWafers' waste management emphasizes source reduction, manufacturing process improvement and source reduction in order to reduce waste generated. Meanwhile, recycling, re-use and re-utilization are implemented within factories to reduce amount for newly purchased raw materials while lowering the amount of wastes generated. Finally, the company implements commissioned clearance (including incineration, landfill and physical treatment). Currently, all wastes in our respective factories are treated through commissioned clean-up. There are no cases of multi-national (offshore) waste treatment. In the past 3 years, no major waste treatment vendor violations have been discovered, and an audit mechanism has been established to ensure legal compliance by the waste treatment vendors and determine whether to cooperate with such vendors. There has been also no major leakage or overseas hazardous industrial waste disposal incidents from any plants

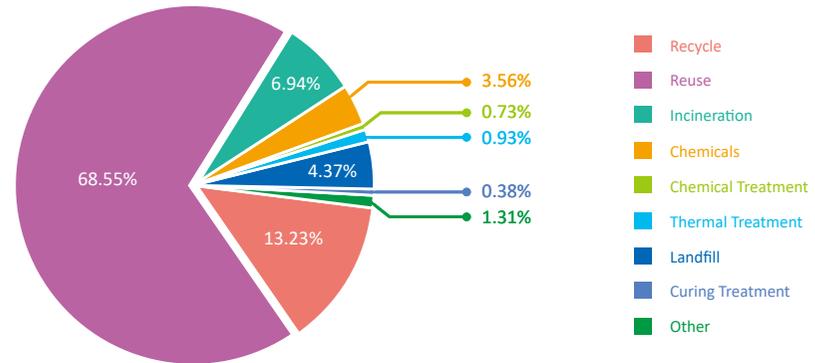
In Taiwan, our waste generated goes through waste clearance and handling in accordance with waste clearance related regulations to comply with the most basic requirements from laws and regulations. Prior to commissioning the waste treatment, collection by categories and storage management are implemented within the plants. After appropriate and legal waste clearance and handling contractors are selected based on the features of waste, the waste is thus handed over to the contractors for handling, clearance and reporting where the waste is shipped all in accordance with environmental protection regulations. For the purpose of effective control over where wastes are shipped and to ensure that wastes have been carefully treated, audits are arranged to be implemented on waste contractors each year based on the content of their work (clearance, handling, reutilization). As for clearance institutes, we emphasize on factory access control. For handling/reutilization institutes, audit is conducted on materials of their storage facility, treatment facility, treatment capability, operation of pollution prevention equipment, on-site safety, hygiene and firefighting management as well as company operation condition. Audit results then are categorized into grades to determine whether later collaboration will be continued or the audit frequency should be enhanced.

In 2020, Taiwan's waste disposal volume was 7,167 metric tons, of which general industrial waste accounted for 98.4% and hazardous industrial waste accounted for 1.6%. The amount of waste processed in overseas areas was 23,499 metric tons, of which general industrial waste accounted for 74.4%, and hazardous industrial waste accounted for 25.6%. Moreover, the top general industrial waste disposal method in Taiwan is reuse, which accounted for 90.38% (6,374.93 metric tons); followed by Incineration treatment, which accounted for 5.79% (408.56 metric tons). For hazardous industrial waste, reuse is also the top disposal method (93.461 metric tons, 82.08%), followed by incineration treatment (19.7231 metric tons, 17.32%).

In Taiwan, the industrial waste disposal volume accounted for 23.37% compared to that of the plants worldwide. Our waste disposal volumes in the past 3 years have shown an increasing trend each year primarily due to the continuous expansion of production capacity.

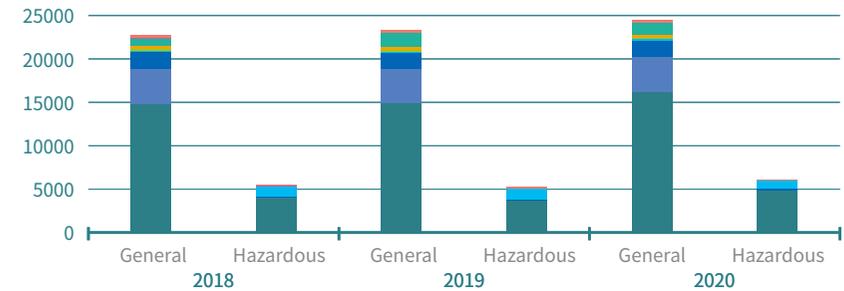
In terms of the disposal industrial waste methods entrusted, industrial waste from resource procurement and reuse methods from our plants worldwide in 2020 accounted for 81.78% of the total waste treatment volume; of which incineration treatment accounted for 6.94%, landfill treatment accounted for 4.37%, and chemical treatment accounted for 3.56%. Waste disposal method ratio in Taiwan: resource reuse 93.41%, incineration 5.98%, physical treatment 0.32%, solidification 0.23%, and landfill 0.06%.

Entrusted Industrial Waste Treatment Methods by Plants Worldwide in 2020



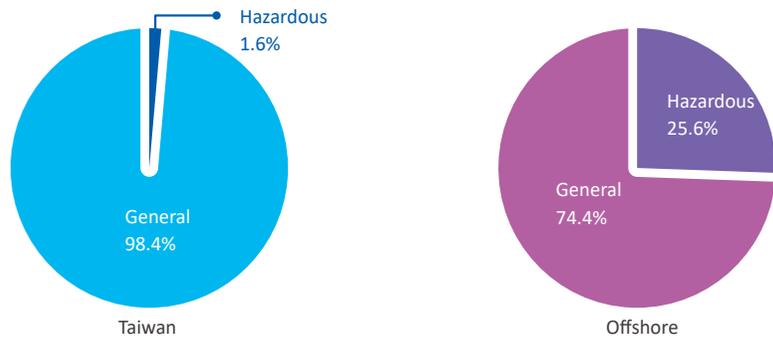
Waste Disposal Methods by Plants Worldwide

Unit: Metric Ton



	2018	2019	2020
Other	238	107	292
Curing Treatment	118	1	116
Landfill	841	2	1,570
Thermal Treatment	386	3	290
Chemical Treatment	184	20	256
Chemicals	163	1,192	160
Incineration	1,863	137	1,782
Recycle	4,154	0	4,008
Reuse	14,771	4,011	14,897
Total	22,719	5,473	23,372

Percentage of Industrial Waste in 2020



Note: 1. Taiwan: GlobalWafers Headquarters, Zhunan Plant, Taisil Branch
 2. Overseas: GlobiTech Incorporated., GlobalWafers Japan Co., Ltd., MEMC Electronic Materials Sdn Bhd, MEMC Electronic Materials S.p.A., MEMC Japan Ltd., MEMC Korea Company, MEMC LLC, Kunshan Sino Silicon Technology, Topsil GlobalWafers A/S

4.3 Source Reduction

4.3.1 Raw Material Re-Utilization

GlobalWafers has promoted the ISO 14001 environmental management system and introduced the product life cycle concept in order to reduce raw material consumption and waste output, and achieve the goal of sustainable operation and environmental protection. Based on different manufacturing processes, our respective factories utilize as much recycled raw materials as possible. Recycled raw materials utilized by our respective global factories include silicon raw materials, cutting fluid (supporting agent), product package carton and wafer cassette.



GlobalWafers relies mainly on silicon as its main raw materials for production. During the crystal growth stage, we use the tailings recycled within the plants as much as possible to save the procurement costs and to reduce the waste outputs.

4.3.2 Energy Management

As stated in the previous chapter about organization inspection results on our greenhouse gas emission, the main resource for GlobalWafers' greenhouse gas emission is electricity. Therefore, reduction in electricity utilization as enhancement of energy efficiency are GlobalWafers' current top priorities. In Taiwan, through the introduction of ISO 50001 energy management system, we monitor and measure significant energy utilization equipment, establish improvement action plan and conduct regular tracking on performance of improvement measures in order to achieve the goals of continued improvement, energy saving and carbon reduction. We also expect to facilitate corporate innovation power, lower environmental ecology footprints for various products and services and enhance corporate image and competitiveness through our concerns over environmental protection and sustainable issues.

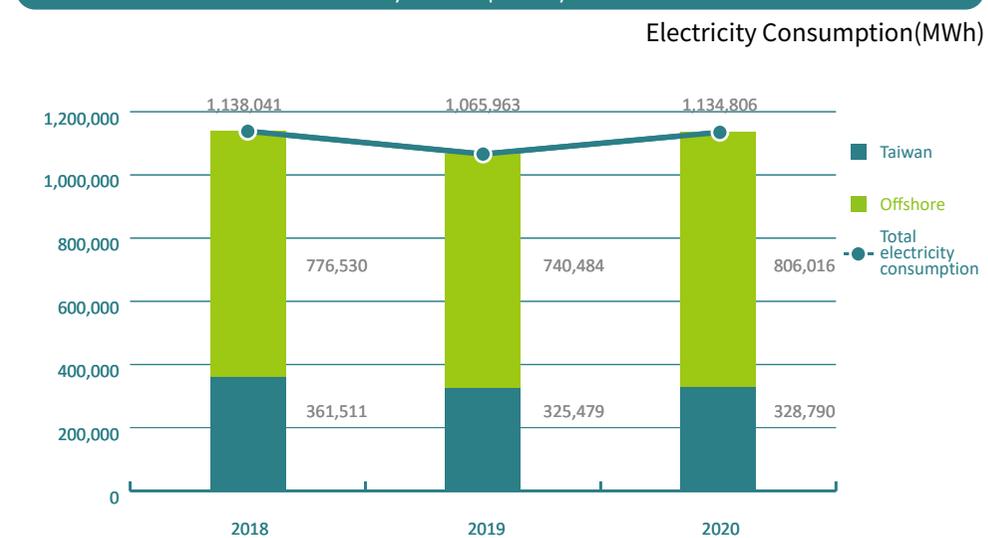
Statistics for 2020 indicated that the total amount of electricity used by GlobalWafers' plants in 2020 is 1,134.806 thousand kWh, which increased by about 69 thousand kWh compared with that of 2019. In Taiwan, 28 new energy-conservation measures will be added in 2020 in addition to the continuous implementation of previous energy-conservation measures. The total annual energy conservation items can save 4,956,153 KWh, which is equivalent to a reduction of 2,522.5 metric tons of carbon dioxide emissions throughout the year.

2020 Recycled Raw Materials Utilization Status

Category	Total Amount of the Year (Tons)	Total Recycled Amount of the Year (Tons)	Recycle Rate of the Year
Silicon Raw Material	5,509.4	1,077.56	19.56%

Note: This table includes GlobalWafers Headquarters & Zhunan Plant, Taisil Branch, GlobalWafers Japan Co., Ltd., MEMC Electronic Materials S.p.A, MEMC Korea Company

Total Electricity Consumption by Plants Worldwide



Note: 1. Taiwan: GlobalWafers Headquarters, Zhunan Plant, Taisil Branch
 2. Overseas: GlobalWafers Japan Co., Ltd., Kunshan Sino Silicon Technology, MEMC Electronic Materials S.p.A, MEMC Korea Company, MEMC LLC, MEMC Japan Ltd., GlobiTech Incorporated., MEMC Electronic Materials Sdn. Bhd., Topsil GlobalWafers A/S.

Re-utilization Quantity for Silicon Raw Materials 1,077 metric tons

Single Factory Re-Utilization Rate

- GlobalWafers Headquarters 30.94%
- Taisil Electronic 19%
- GlobalWafers Japan Co., Ltd 22.5%
- MEMC Electronic Materials S.p.A 14.7%
- MEMC Korea Company 17.7%

Re-utilization Quantity for Cutting Fluid (Supporting Agent) 2,473 metric tons

Single Factory Re-Utilization Rate

- Taisil Branch 58.67%
- MEMC Electronic Materials S.p.A 69.62%
- MEMC Electronic Materials Sdn. Bhd. 97.83%
- MEMC Japan Ltd. 58.6%

Wafer cassette 592.2 metric tons

Single Factory Re-Utilization Rate

- GlobalWafers Headquarters 91.1%
- Taisil Branch 19.2%
- GlobalWafers Japan Co., Ltd 18.05%
- MEMC Japan Ltd. 46.72%

Product Package Carton 13,421 pc

Single Factory Re-Utilization Rate

- GlobalWafers Headquarters 8.67%

• Energy-conservation Measures in Taiwan

GlobalWafers Headquarters & Zhunan Plant						
Category	Energy Saving Items	Calculated Energy Saving Period	Annual savings (kWh)	Annual savings (GJ)	Carbon emission reduction equivalent (ton-CO ₂ e)	Electricity bill savings (NT\$)
Air Condition Energy Saving	Replace ice water pipes for large office and walkways PE thermal insulation (continued)	1/1~5/31	5,750 kWh	20,700 GJ	2.9	13,237
	Replace the old dryer with a freezer dryer (continued)	1/1~3/31	3,750 kWh	13,500 GJ	1.9	8,633
Machine Efficiency Enhancement	Crystal growth furnace area AIR air leak throttle inspection proposal	5/1~12/31	7,898 kWh	28,433 GJ	4.0	18,181
	1RO water pump replacement proposal	5/1~12/31	1,411 kWh	5,081 GJ	0.7	3,249
	No. 3 air compressor replacement project	8/1~12/31	61,584 kWh	221,703 GJ	31.3	141,767
	Change the aluminum alloy fan blades for cooling water tower with FRP Energy-saving fan blades (continued)	1/1~3/31	23,922 kWh	86,118 GJ	12.2	54,900
	Modification of non-heat regeneration adsorption dryer1 (continued)	1/1~3/31	30,266 kWh	108,957 GJ	15.4	69,460
	Optimal air compressor adjustment	2/1~12/31	115,311 kWh	415,120 GJ	58.7	264,639
	Temporary storage tank for recycled water in wastewater facility (T02-05) energy saving pump	3/1~12/31	5,399 kWh	19,437 GJ	2.7	12,391
Machine Improvement	Polishing machine heat preservation project (continued)	1/1~10/31	24,988 kWh	89,955 GJ	12.7	57,521
	Washing machine circulation pipeline	10/1~12/31	20,518 kWh	73,865 GJ	10.4	47,232
	PC change to small PC (TC) energy saving case	5/1~12/31	11,096 kWh	39,946 GJ	5.6	25,543
	Property management chemical warehouse energy-saving method	9/1~12/31	302 kWh	1,088 GJ	0.2	696
	WS process change to DW PPH energy-saving enhancement case	6/1~12/31	29,169 kWh	105,008 GJ	14.8	67,147
	HR-1000 grinder PPH energy-saving enhancement case	7/1~12/31	814 kWh	2,930 GJ	0.4	1,874
	Crystal growth process pump collaboration with crystal growth furnace shutdown to save electricity	11/1~12/31	6,899 kWh	24,836 GJ	3.5	15,833
	18-inch full energy-conservation thermal field (F3, F8)	3/1~12/31	216,000 kWh	777,600 GJ	109.9	495,720
	Energy saving plan for silicon carbide mass production etching furnace	10/1~12/31	4,770 kWh	17,172 GJ	2.4	10,947
	CG#6000 MCZ IGBT electricity conservation plan (C2, D5)	1/1~12/31	288,000 kWh	1,036,800 GJ	146.6	660,960
	Milling machine 158A water supplement via self-circulation	11/1~12/31	14 kWh	50 GJ	0.0	32
Energy Saving on Lighting	Rough inspection station replaces traditional lamps and lanterns with LED lighting (continued)	1/1~10/31	864 kWh	3,110 GJ	0.4	1,989
	Product inspection T8fluorescent lights are change to LED fluorescent lights	8/1~12/31	2,495 kWh	8,982 GJ	1.3	5,743
	LED lighting replacement	4/1~12/31	874 kWh	3,146 GJ	0.4	2,005

Taisil Electronic Plant

Category	Energy Saving Items	Calculated Energy Saving Period	Annual savings (kWh)	Annual savings (GJ)	Carbon emission reduction equivalent (ton-CO ₂ e)	Electricity bill savings (NT\$)
Air Compressor Energy Saving	Purchased a new 500hp air compressor to replace three 200hp compressors	1/1~12/31	1,114,083 kWh	4,010,698.8 GJ	567.1	2603612
Machine Improvement	Puller main pump power saving (continued)	1/1~6/10	92,350 kWh	332,459 GJ	47	215821
	Puller aux pump power saving (continued)	1/1~5/31	481,520 kWh	1,733,472 GJ	245.1	1125312
	EBINB01 exchanges HID lamps to LED lamps at backside module (continued)	1/1~8/31	3,064 kWh	11,032 GJ	1.6	7162
	ASM fan inverter uses new Type (continued)	1/1~12/5	31 kWh	110 GJ	0	72
	ASM fan uses a fixed frequency (continued)	1/1~12/5	290,324 kWh	1,045,167 GJ	147.8	678488
	Office personal desktop computers are turned off after work hours and cannot enter standby mode	1/1~12/31	499 kWh	1,796 GJ	0.3	1166
	W4 Bench PWC#1, changed to new model DI Heater (HeateFlex)	1/1~12/31	17,100 kWh	61,560 GJ	8.7	39963
	Solid State Laser Upgrade Cost vs. Argon Laser	1/1~12/31	16,238 kWh	58,457 GJ	8.3	37948
	2019-PULLER LPHZ Conversion (continued)	1/1~10/31	202,804 kWh	730,094 GJ	103.2	473953
	XPS305T uses bottom insulation material with better insulation effects	4/1~12/31	1,028,231 kWh	3,701,632 GJ	523.4	2402976
	Change the 32 inch bottom thermal field design to improve the thermal insulation effect	4/1~12/31	190,349 kWh	685,256 GJ	96.9	444846
	32 inch uses side insulation material with better insulation effect	2/1~12/31	257,533 kWh	927,119 GJ	131.1	601855
	Increase the number of 200mm LPHZ machines	3/1~12/31	290,519 kWh	1,045,868 GJ	147.9	678943
	DGRD equipment reduce the vacuum pump usage rate	10/1~12/31	3,116 kWh	11,217 GJ	1.6	7282
	Replace with new In-line heater	10/1~12/31	3,974 kWh	14,308 GJ	2	9288
ASM heating bulb fitness rate improvement	10/1~12/31	42 kWh	150 GJ	0	97	
Energy Saving on Lighting	2020 lighting energy saving improvement project	1/1~12/31	102,283 kWh	368,219 GJ	52.1	239035
Taiwan Total	Electricity		4,956,153 kWh	17,842,152.24 GJ	2,522.5	11,534,281

Note: 1. Electricity carbon emission factor is calculated at 0.509 (kg CO₂ e/kWh)

2. After weighted calculation, the electricity fee of each factory is calculated at 2.302 NTD/kWh for GlobalWafers Headquarters, 2.295 NTD/kWh for the Zhunan plant, and 2.337 NTD/kWh for the Taisil Branch.

Machine Improvement



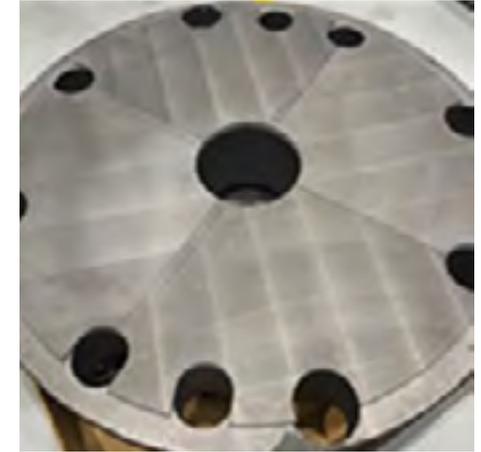
DGRD equipment reduce the vacuum pump usage rate



Replace with new In-line heater



MCZ Horizontal Magnetic Field Machine Efficiency Enhancement



Change the 32 inch bottom thermal field design to improve the thermal insulation effect

Machine Efficiency Enhancement



Modification of non-heat regeneration adsorption dryer



No. 3 air compressor replacement project

Air Conditioner & Lighting Energy Conservation



Purchased a new 500hp air compressor to replace three 200hp compressors



2020 lighting energy saving improvement project

4.3.3 Water Resources Management

Issues regarding global climate change problem in recent years have led to extreme rainfalls, which also highlights the critical importance of water resources management. GlobalWafers' water in Taiwan comes from running water supplied by Taiwan Water Corporation. A small part of the water comes from air-conditioner condensates. The company does not use underground water. Therefore, there are no problems of underground water overutilization, land subsidence or sabotage to the environment ecology. The water sources come from Baoshan Dam #1 and #2 as well as Yongheshan Reservoir. None of the original water sources are classified as national or international nature reserves or from sensitive water origins (considered by experts as relative area, special function, rare, threatened, endangered system, or some kind of endangered species live in the water source). As for water consumption conservation, GlobalWafers is dedicated to reusing recovered water as a response to the risks of water shortage risks due to global climate change.

GlobalWafers' Water withdrawal in 2020 has increased slightly compared to that of 2019. In 2020, the Water withdrawal volume is 22,121.9 million liters (kM3), which increased by 47.8 million liters (kM3) compared to that of 2019. The Water withdrawal volume from the plants in Taiwan is approximately 2,414 kM3, and the (tab) water consumption volume from the plants' areas is approximately 29,405.09 kM3 (information source: 2019 date from the Water Resource Agency, MOEA). Therefore, consumption by our plants accounted for only 0.82% , which has no significant impact on the water source. In terms of water recycling and reuse, the total volume of water recovered by our plants worldwide in 2020 is 5,674.4 million liters (kM3). In 2020, the plants in Taiwan recovered and reused 2,448.3 million liters (kM3) of water, which accounted for 43.15% of the total water volume recovered.

In terms of water recovery rate, the average water recovery rate of our plants worldwide in 2020 is 19.03%, which slight increased from 17.91% in 2019. The water recovery rate in Taiwan for 2019 and 2020 is 52.1% and 50.4%, respectively. Taiwan is considered the top primary water recovery region among our plants worldwide.

• Water Consumption Quantity

The main source of water for GlobalWafers plants in Taiwan is water supply from tap water companies. Our overseas plants obtain water from surface water, ground water, and third-party water suppliers. The Water withdrawal source for each site is fresh water ($\leq 1,000$ mg/L total dissolved solids). Moreover, because there is currently no international water stress region report, GlobalWafers has referenced the wri aqueduct water resource risk report and determined that except for plants with level-3 water pressure stress in mainland China, the bases in all other areas worldwide rank between level-1 and level-2, which are considered as non-water stress areas.

• Water Discharge Volume

GlobalWafers total wastewater discharge volumes in Taiwan between 2018 and 2020 are 1,887.2 kM3, 1,812.2 kM3, and 1,981.6 kM3, respectively. In addition, the discharge-water quality also complies with laws and regulations as well as the requirements of the park where the plant is located. The plants provide initial treatments to ensure the wastewater meets the park's management standards before it is discharged to the sewage treatment plants. Each year, inspections are conducted on inspections items required by the laws and regulations as well as the park management standards to ensure compliance. Based on the fact that foreign plants have not yet cooperated with stakeholders to reach strategic water resource management, GlobalWafers will coordinate and communicate with stakeholders regarding water resource risk management in the future.

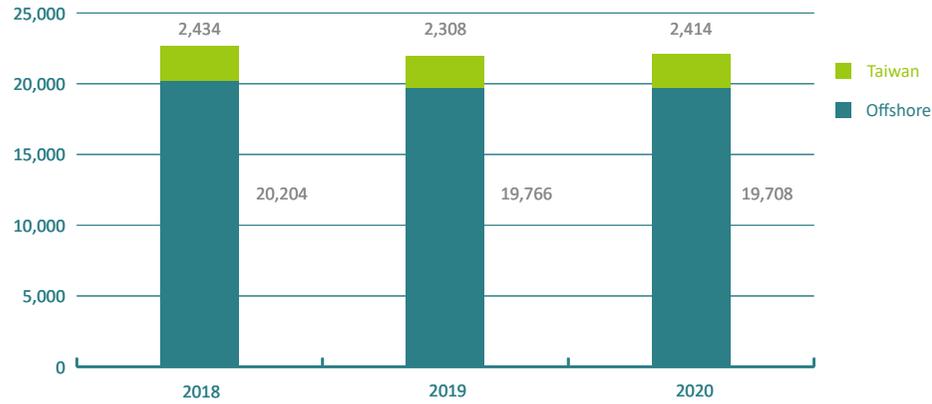
2018~2020 Water Withdrawal, Discharge, and Consumption

Unit: million liters (kM³)

Category	2018		2019		2020		
	Taiwan	Offshore	Taiwan	Offshore	Taiwan	Offshore	
Water withdrawal quantity	Surface water	0	1,275.7	0	1,240.2	0	1,250.3
	Underground water	0	11,587.6	0	11,287	0	10,810.2
	Seawater	0	0.0	0	0	0	0
	Third-party water	2,434.2	7,340.6	2,308.2	7,238.7	2,414	7,647.4
	Total	22,638.1		22,074.1		22,121.9	
Water discharge	Surface water	0	8,515.8	0	7,506.7	0	6,631.8
	Underground water	0	0.0	0	0.0	0	0.0
	Seawater	0	4,679.3	0	4,584.7	0	4,652.8
	Third-party water	1,887.2	4,110.2	1,812.2	4,287.2	1,981.6	4,819.8
	Total	19,192.5		18,190.8		18,086.1	
Water consumption quantity	546.9	2,898.7	496.0	3,387.3	432.4	3,603.4	
Total	3,445.6		3,883.3		4,035.8		

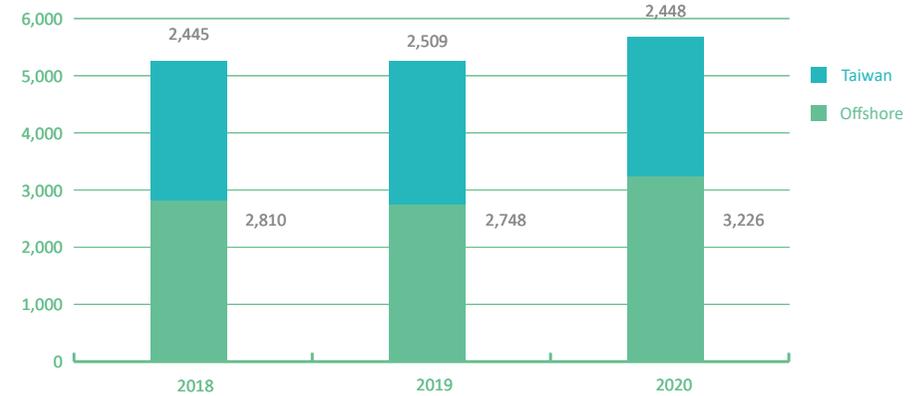
Total Water Withdrawal Quantity

Unit : (km³)



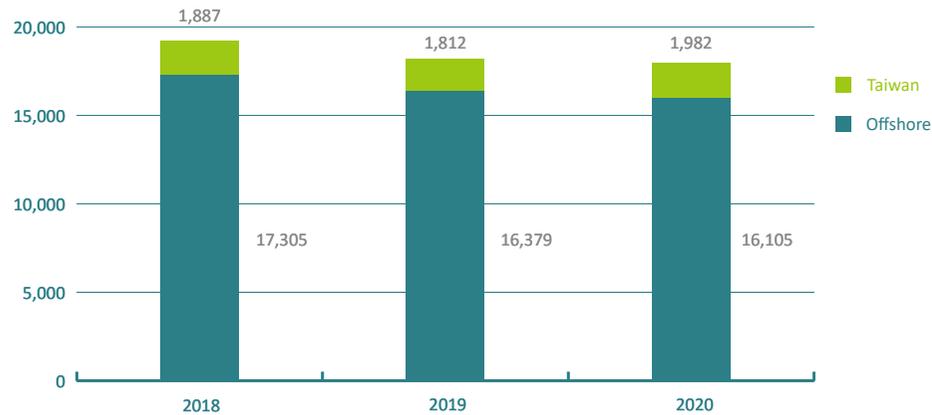
Recycled Water Reuse Rate

Unit : (km³)



Total Water Discharge Quantity

Unit : (km³)



Water Resource Recycling Rate

Unit : (km³)



Note: 1. Taiwan: GlobalWafers Headquarters, Zhunan Plant, Taisil Branch

2. Overseas: GlobiTech Incorporated., GlobalWafers Japan Co., Ltd., MEMC Electronic Materials Sdn. Bhd., MEMC Electronic Materials S.p.A, MEMC Japan Ltd., MEMC Korea Company, MEMC LLC, Kunshan Sino Silicon Technology, Topsil GlobalWafers A/S

GlobalWafers' management concept procedures for water conservation measures in Taiwan's plants are mainly conducted through the factory operation system and the manufacturing process equipment, while the recovery system efficiency for manufacturing process wastewater continues to be enhanced. We regularly hold internal water-conservation and improvement meetings to promote water conservation to make water conservation a consensus for the entire Company. The water-conservation measures in 2020 include:

2020 water-conservation measure results in Taiwan plants

Plant	Measures	Water conservation volume (metric ton)
GlobalWafers Wafers	<ol style="list-style-type: none"> Adjust the cooling water tower conductivity and increase from 1,800µs/cm to 2,100µs/cm Water conservation measures for cooling tower evaporation (adjust the air conditioner ice machine outlet water temperature) to 7.5 degrees and 7.8 degrees Water-conservation adjustment for air sewage scrubber water supply Water adjustment for gardening Supplementary water source adjustment for air pollution scrubber Cutting water conservation project 	4,546.6
Taisil Electronics	<ol style="list-style-type: none"> Use recycled water to clean the sludge machine filter cloth in the wastewater treatment plant <ul style="list-style-type: none"> ※ Switched from tap water to recycled water for filter cloth cleaning and polymer solution soaking in the wastewater treatment plant, which can save approximately 70 tons of tap water each day. Switched to recycled water 2.8F SCR <ul style="list-style-type: none"> ※ Switched from tap water to recycled water to save approximately 50 tons of tap water each day. Set up recycle water pipelines for CUB #5 cooling water tower and UB cooling water tower <ul style="list-style-type: none"> ※ Switched from tap water to recycled water to save approximately 30-50 tons of tap water each day. ※ Reduce tap water consumption by the UB cooling water tower and increase recycled water volume to save approximately 100-150 tons of tap water each day. 	27,330
Total		31,876.6

4.4 Pollution Prevention

We aggressively promote green product and green production, and reduce raw material consumption through manufacturing process and technology enhancement. We not only reduce pollution discharge at the source, we also lower operation costs, reduce resource consumption and mitigate impact to environment. We also request our up- and down-stream suppliers that their products and components delivered to GlobalWafers shall comply with requirements of related international regulations on not using conflict minerals and prevention of materials hazardous to environment for the purpose of ensuring products' compliance with directives of RoHS, WEEE, REACH, ErP and Batteries.

Research teams and related departments of our respective factories are constantly engaged in innovation, improvement and assessment of feasible technology for friendly environment, verify feasibility through simulations and tests, and introduce technology into production process in order to fulfill responsibilities of sustainable operation and environmental protection. Take our GlobalWafers plants in Taiwan as an example:

Raw Material Reduction

Cutting-DW production ratio increased from 70% to 94%

- Cutting silicon powder decreased by 6%
- Carrier agent reduced 10%
- Silicon carbide powder decreased by 6.4%

Smoothing & wash is switched to FO1200HR grinding powder

- Silicon dioxide grinding powder is reduced by 24,338 (kg/year)
- Suspending agent is reduced by 3,791 (kg/year)

Polishing/wafer thinning OEM Shipping Box recycle & reuse

- 2000pcs 6" Cassettes are not discarded directly, but recycled & reused for subsequent shipments

Recycle & reuse of diffusion / protection-foam filling shipping packaging sheets

- A total of 10,800pcs of foamed filling sheets are recyclable



05 Friendly Workplace

- 5.1 Employee Care
- 5.2 Occupational Safety and Emergency Response
- 5.3 Social Participation

Major Aspects for Consideration

Safety Environment (Emergency Response), Human Rights, Talent Cultivation

Significance to GlobalWafers

Diversified employee composition is one of the key sustainable development factors for GlobalWafers, and our bases are distributed throughout the world. Under the principle of “creating a friendly workplace,” GlobalWafers is committed to equal treatment despite gender, age, and ethnic group. In addition to providing friendly working conditions, the Company also attaches great importance to the harmonious development of the society and environment.

We value all of our employees; have formulated discrimination, remuneration, promotion, privacy, environmental safety and health, human resource development, and labor relations related policies; and actively encourage employees to participate in social welfare activities.

GlobalWafers strives to care about social issues while serving customers, and pledges to provide bilateral channels for employees to create a better, safer, and healthy working environment in order to promote sustainable development for the Company.

Management Mechanism

1. Formulate comprehensive regulations and methods related to discrimination, appointment, salary, promotion, privacy, environmental safety and health, human resource development, and labor-management relations. Recruit talents, maintain good labor-management relations, as well as track and analyze the Group’s human resources utilization in order to grasp the organization’s manpower and intellectual capital changes.
2. The Company holds regular labor/management meetings and provides various communication channels and report mechanism in order to effectively understand employees’ opinions and resolve their problems.
3. The Company promotes occupational health and safety management system, safety education training and safety culture activities. We enhance employees’ safety awareness, strengthen their professional literacy and discipline in order to reduce accident rate effectively and safeguard employees’ occupational safety.
4. Regularly conduct emergency response team training as well as emergency escape and evacuation drills; strengthen in-plant disaster relief as well as the colleagues’ familiarity with the working environment and escape routes; and minimize any possible personnel injury, property damage, and environmental impacts caused by accidents.

2020 Key Achievements



Future Goals(Year 2021)

1. The number of trainees in annual training courses has grown by $\geq 3\%$
2. 0 major occupational disaster and 0 work-related ill health
3. 0 human rights related disputes
4. Reduce labor salary dispute expenditures
5. 100% of new recruits have completed the workplace bullying and sexual harassment prevention education and training within 30 days of employment

5.1 Employee Care

5.1.1 Human Resources

Diversified talents are the cornerstone of enterprise growth. We value the right to select talents and work autonomy, and are committed to creating the results together with our employees. In light of the challenges brought by globalization, technological progress, organizational development, and demographic changes; we have developed short-, medium-, and long-term human resource management plans in order to meet our corporate goals and achieve the attraction, integration, retention, evaluation, and development objectives. In sum, we have designed a structured interview process to effectively recruit knowledge-based talents; attached significant importance to employee potential and personal development; implemented job rotations to cultivate worker versatility; formed work teams to jointly formulate and execute projects; committed to creating a safe, happy, and healthy environment; upheld the basic rights of every employee; developed a reward system linked to performance; and encouraged employees and supervisors to jointly set and achieve personal goals. We will continue to provide employees with high-quality human resources services to help them create higher value.

In 2020, we have a total of 6,926 employees. Among them, male employees account for 76.9% and female employees account for 23.1%. In terms of official and non-official employees, official employees account for 93.62% and non-official employees account for 6.38%. In terms of employment types, non-fixed term (general employees) accounts for 85.36% of official employees, and fixed term accounts for 14.64%. In terms of work locations, the number of employees in Taiwan account for 22.99%. In terms of management level in Taiwan, the total number of supervisors is 202, of which 76.24% are males and 23.76% are females. In terms of management ranks, there are 36 high-level supervisors (department level or higher), 64 managers or deputy managers, 28 director-level personnel, and 74 sectional level personnel.

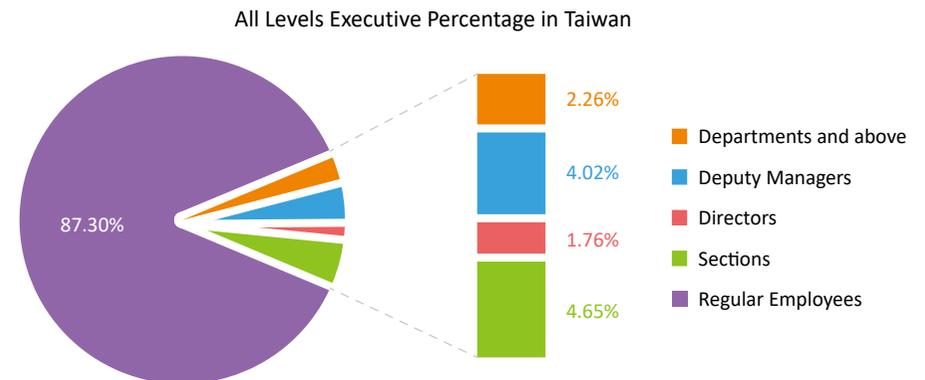
Man Power Structure in Global Factories

Staff structure		Year	2018	2019	2020
By gender	Male		5,371	5,145	5,326
	Female		1,737	1,584	1,600
Official / Non-official (all are official employees)	Official		6,558	6,286	6,484
	Non-official		550	443	442
By employment contract	Non-fixed term		6,324	6,054	5,912
	Fixed term (contractors, interns, migrant workers, seasonal)		784	675	1,014
By nature of work	Direct		4,212	4,133	4,089
	Indirect		2,896	2,596	2,837
By education level	Doctorate degree		62	56	57
	Master degree		518	497	499
	College		1,513	1,425	1,451
	Senior high school and vocational school		4,563	4,309	4,492
	Junior high school and below		452	442	427
By age	< age 30	Male	1,026	852	945
		Female	468	388	367
	age 30-50	Male	3,199	3,052	3,007
		Female	951	899	908
	> age 50	Male	1,132	1,216	1,357
		Female	332	322	342
Total			7,108	6,729	6,926

All Levels	Male	Female	Total	Percentage
Departments and above	32	4	36	2.26%
Deputy Managers	42	22	64	4.02%
Directors	22	6	28	1.76%
Sections	58	16	74	4.65%
Regular Employees	998	392	1,389	87.30%
Total	1,152	440	1,591	100.00%

Note:

This table reveals the proportion of supervisors in GlobalWafers Headquarters, GlobalWafers Zhunan Plant, and Taisil Branch. It is difficult to unify the titles of foreign supervisors, so they are not included at present.



In 2020, the number of new employees in Taiwan is 174. In terms of gender, new male employees account for 7.48% of the total, and women account for 3.46%. In terms of age, new recruits between 30 and 50 years old accounted for 6.35%, followed by new recruits younger than 30 years old at 4.28%. The number of new recruits who are still working by the end of 2020 is 96. When employees submit their resignation letter, the HR department would immediately schedule an exit interview to understand reasons for the resignation. This also enables the HR department to provide active assistance in adjustments and detailed explanations with regard to work contents, personal characteristics, and identified problems to achieve the goal of talent retention.

Statistical Analysis for New Employees

Year	2018				2019				2020			
	Age	Male (no. of people)	Percentage	Female (no. of people)	Percentage	Male (no. of people)	Percentage	Female (no. of people)	Percentage	Male (no. of people)	Percentage	Female (no. of people)
< age 30	64	4.04%	33	2.08%	34	2.05%	31	1.87%	48	3.02%	20	1.26%
age 30~50	108	6.82%	48	3.03%	43	2.59%	21	1.27%	68	4.28%	33	2.08%
Age 50 and above	5	0.32%	0	0.00%	1	0.06%	1	0.06%	3	0.19%	2	0.13%
Total	177	11.17%	81	5.11%	78	4.70%	53	3.19%	119	7.48%	55	3.46%

Statistical Analysis for Resigned Employees

Year	2018				2019				2020			
	Age	Male (no. of people)	Percentage	Female (no. of people)	Percentage	Male (no. of people)	Percentage	Female (no. of people)	Percentage	Male (no. of people)	Percentage	Female (no. of people)
< age 30	48	3.03%	23	1.45%	49	2.95%	28	1.69%	37	2.33%	19	1.19%
age 30~50	57	3.60%	33	2.08%	68	4.10%	43	2.59%	75	4.72%	31	1.95%
Age 50 and above	9	0.57%	8	0.51%	3	0.18%	3	0.18%	9	0.57%	3	0.19%
Total	114	7.20%	64	4.04%	120	7.23%	74	4.46%	121	7.61%	53	3.33%

Note: The percentage of new and resigned employees is based on the percentage of the total number of employees at the end of the previous year

5.1.2 Remuneration and Benefits

Employees are a critical force in corporate growth and success. We provide competitive remuneration and benefits to attract and retain talents from all areas, as well as offering substantial rewards for our employees’ hard work and contributions to the Company.

GlobalWafers has been committed to improving the human development system and friendly working environment in addition to enhancing the remuneration and welfare measures in order to inspire employees to develop their potentials, exert their strengths, and grow with the Company. GlobalWafers strives to enhance the employees’ cohesion and sense of identity by providing outstanding care and benefits, and creating a culture of positive growth to become the working environment that professionals yearn for.

Each year, GlobalWafers measures the market salary level via annual salary surveys, and makes appropriate adjustments to employee salaries by referring to objective data such as the overall economic indicators and price indices. Meanwhile, the salary standards of colleagues are judged based on work-related items such as position, seniority, and professional ability to ensure equal pay for equal work and prevent any bias based on gender, age, or other factors.

• Number of full-time employees as well as the average and median salary of non-supervisory positions in 2020

Category		2019	2020	Difference compared to the previous year
Non-supervisory positions	Number of full-time employees (persons)	601	1,453	141.76%
	Average salary (NT\$ thousand)	1,489	1,104	- 25.86%
	Median salary (NT\$ thousand)	1,460	1,068	- 26.85%

Note 1: “Full-time employees” refer to those whose working hours have reached the normal working hours or statutory working hours stipulated by the Company, or the rough average working hours have exceed 35 hours per week for those whose normal working hours are not set.

Note 2: “Full-time non-supervisory employees” refers to the number of full-time employees after subtracting the supervisor positions, part-time positions, and those eligible for exemption from statistics from all employees. Employees in supervisory positions refer to Company managers or “managers” within the scope as defined by the regulations of the competent authority: President and equivalent; deputy President and equivalent; associate manager and equivalent; head of the financial department; head of the accounting department; and other persons who have the authority to manage the company’s affairs, provide authorization signatures, and consistent within the scope of insiders (managers) and (managers) declared by the annual shareholders meeting report.

Note 3: “Salary” refers to the employee’s salary attributable to the current year according to the accrual basis based on the occurrence of powers and responsibilities. It shall include recurring salary (monthly basic salary, fixed allowance, and bonus), overtime pay (regardless of taxable or tax-free), and non-recurring salary (non-monthly allowances, bonuses, employee compensation, etc.).

Note 4: The number of employees listed above is based on the weighted average statistical concept (the average number of employees for each month), and only covers GlobalWafers’ Hsinchu plant, Zhunan plant, and the Taisil Branch.

• Connection between Appraisal and Remuneration

We conduct performance review on all employees each year. Focused on employees’ commitment to work, duty and responsibility as well as level of contribution, we make salary adjustment under considerations of future development possibility and market salary levels, and offer encouragement cash reward and bonus based on performance results to ensure employees’ remuneration and development combine with the company’s finance and performance, and encourage employees’ continuous dedication and innovation on their duties.

• Comprehensive Benefits System

In Taiwan, we provide employee labor and health insurance, labor retirement and group insurance, employee meal subsidy, annual travel subsidy, employee health exams, gifts for three major festivals and birthday, wedding and funeral subsidies, hospitalization subsidies for injuries and illnesses, club activities subsidies, education and training subsidies, as well as on-site service physicians and other related benefits to help employees reach a balance between work and life.

• Pension System

We appropriate pension funds in accordance with the laws in countries where our operations are located. In Taiwan, we follow “Labor Standards Act” and “Labor Pension Act” in establishing labor retirement guidelines. We have also set up labor pension reserve supervision committee and appropriate sufficient amount of labor pension each month to allow laborers to apply for pension and to safeguard employees’ rights.

• Rewards to Excellent Employees

The Company has established various rewards schemes to encourage proactive and outstanding workers e.g. outstanding achievements reward, project submission reward and patent reward. The Taiwan region also implements the annual model employee selection activity, whereby model employees are selected and publicly praised for recognition. The goal is to build a more positive and active corporate culture, and strive to fulfill the promise of continuous improvement.



• Unpaid Child Care Leaves

GlobalWafers provides employees with the right to parental leave. Employees who have worked for 6 months and have a child under the age of 3 may apply for childcare leave without pay from the Company in order to take care of their child. A total of 33 colleagues in Taiwan have applied for parental leave between 2018 and 2020.

Execution results of unpaid child care leave application

Category	Gender	Total number/ratio		
		2018	2019	2020
Total employee staff number eligible for unpaid child care leave	Male	67	58	58
	Female	23	13	16
Total number of employees who actually took unpaid child care leave	Male	3	1	4
	Female	12	5	8
Total number of reinstated employees upon the expiration of their child care leaves	Male	1	2	4
	Female	13	11	6
Total number of employees who actually resumed their duties upon the expiration of their child care leaves	Male	1	1	2
	Female	9	9	6
Ratio of employees who resumed their duties upon the expiration of their child care leaves (reinstatement rate)	Male	100%	50%	50%
	Female	69.23%	81.82%	100%
Total number of employees still in service 12 months after expiration of their unpaid child care leaves	Male	0	1	0
	Female	5	9	7
The ratio of employees still in service 12 months after expiration of their parental leaves (retention rate)	Male	0%	100%	0%
	Female	100%	100%	87.5%

5.1.3 Talent Cultivation

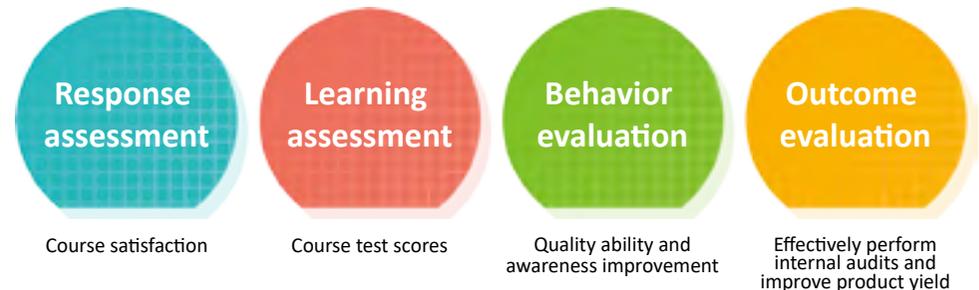
Each year we establish annual education training program based on our operation strategies and short/mid/long term goals, and consider talent cultivation and technology inheritance as our task focus. We strengthen our talent database in order to keep track of the talent dynamics and development direction in the group. We host various types of training courses, academia-industry collaboration and research projects, in order for our staff members to stay tuned to real-time global political and economic trends and status, technology updates, while supplementing the training with job substitutes, job rotation and on-the-job training to strengthen different professional capacity of our employees. We provide diversified training resources, and our training system includes 5 major functions: newcomer competency education and training, professional competency education and training, general management competency education and training, intellectual property education and training, as well as safety and health management training. The goal is to provide employees with appropriate training courses at different stages of career development; enable the Company and colleagues to adapt to the rapid changes in world trends; and help everyone to keep abreast of the latest knowledge, technology, and skills.

GlobalWafers provides a comprehensive and diversified learning environment



• Training Effectiveness Review Framework - Based on AIAG-VDA FMEA Related Courses as an Example

The purpose of this course is to enable students to understand the core tools of the latest FMEA version, which is applicable to work and audits. The main training subjects are R&D personnel, internal auditors, etc.

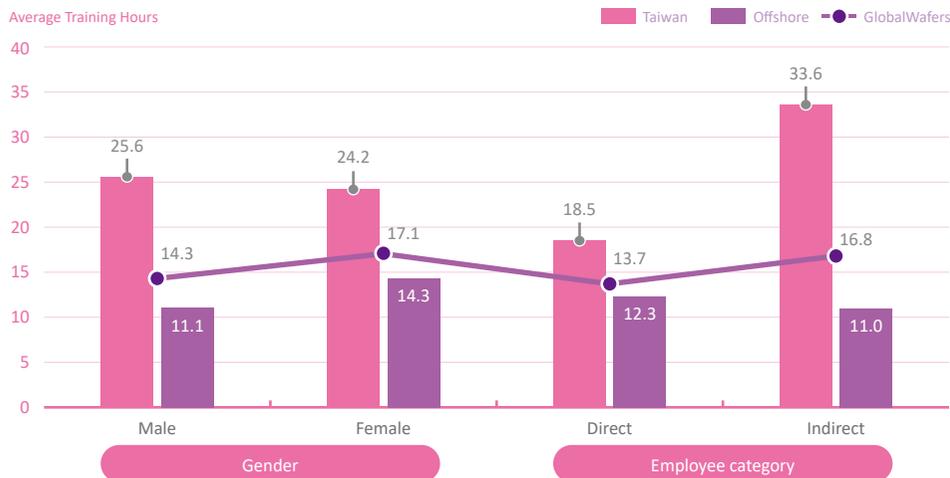


In 2020, the average hours of education and training received by our plants for men and women according to gender are 14.3 hours and 17.1 hours, respectively. Based on employee classification, the average hours of education and training received by direct and indirect personnel are 13.7 hours and 16.8 hours, respectively. The total training hours for GlobalWafers in 2020 is 101,398 hours.

Number of People and Hours for Education and Training from 2018 to 2020

Training type	2018				2019				2020			
	Number of sessions	Number of people	In Session Total hours	Total class hours	Number of sessions	Number of people	In Session Total hours	Total class hours	Number of sessions	Number of people	In Session Total hours	Total class hours
Competency training for new recruits	146	1,126	775.1	6,791	130	960	727	8,227	126	921	747	7,546.5
Professional competency training	1,707	19,392	6,142.8	51,549.8	1,366	14,267	6,038.5	42,030.5	1,670	14,308	5,462.3	47,371
General management competency training	584	32,176	1,428.7	52,245.1	635	41,714	1,530.8	60,253.3	425	33,335	780.6	46,480.5
Total	2,437	52,694	8,346.5	110,585.9	2,131	56,941	8,296.3	110,510.8	2,221	48,564	6,989.8	101,398

Average Employee Education and Training Hours in 2020



Employee Education Training Statistics



Note: 1. The education and training statistics table covers GlobalWafer Headquarters & Zhunan Plant, GlobiTech Incorporated., GlobalWafers Japan Co., Ltd., Kunshan Sino Silicon Technology, Taisil Branch, MEMC Electronic Materials Sdn. Bhd., MEMC Electronic Materials S.p.A., MEMC Japan Ltd., MEMC Korea Company
 2. Direct personnel: personnel who actually engaged in production-related operations such as technical workers and foremen at the production site
 3. Indirect personnel: workers who do not directly involved in production such as supervisors, product designers, accountants, procurement, or engineers

5.1.4 Human Rights

GlobalWafers has always attached great importance to the rights and interests of all employees regardless of class, complied with the relevant human rights regulations of various countries, and endeavored to maintain zero human rights complaint as our ultimate goal. We also believe that a smooth communication channel and grievance system can ensure the rights and interests of employees. Regarding the company’s internal updates like important policies, remuneration & benefits, and leave system changes, the employees will be notified via labor-management meetings, electronic newsletters or HR announcements, prior to execution, so as to safeguard the employees’ rights and interests.

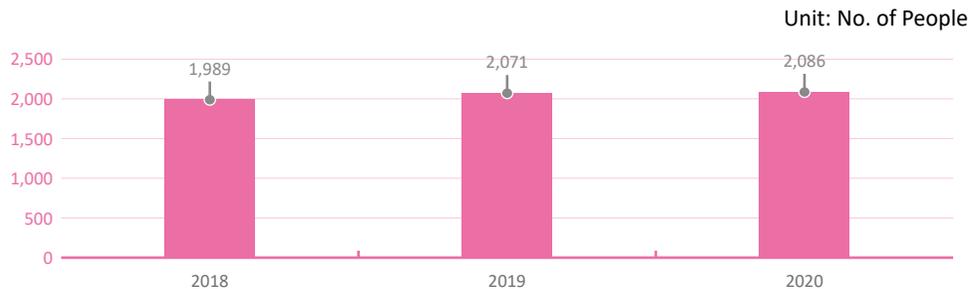
Employees in the Taiwan region can freely provide views and opinions via regular labor-management meetings, employee suggestion boxes, occupational health and safety committees, old retirement reserve fund supervision committee meetings, welfare committee meetings, and many other channels. The goal is to enable employees to fully express their opinions via exchanges and discussions, and enable effective bilateral communication between labor and management in order to achieve a win-win between labor and management. To workplace violence and sexual harassment, we in Taiwan specifically establish relevant guidelines and report contact to serve as employees’ report channel and communication platform to prevent against workplace violence and sexual harassment.

We conduct relevant human rights education and training for new employees in most of our operating sites. In 2020, a total of 5,777 people received human rights education and training, the total number of training hours reached 7,991 hours, and the percentage of employees trained was 83.41%. In addition, courses on workplace violence and sexual harassment prevention and abatement are also held every year for in-service employees. There have been no human rights incident complaints (forced labor, child labor, discrimination, harassment, and violation of freedom of association) from our operating locations in the past 3 years, and we will continue to strive for zero human rights complaints as our ultimate goal.

• Union

The number of our unions is 2,086 in 2020, which account for 30.1% of the total number of employees. Among them, there is no union in Taiwan, and the operating bases for unions are Asia (Japan & South Korea), Europe, and the United States.

No. of People Participating in Unions



Note: GlobalWafer Headquarters, GlobalWafers Zhunan Plant, GlobiTech Incorporated., GlobalWafers Japan Co., Ltd., Kunshan Sino Silicon Technology, Taisil Branch, MEMC Electronic Materials Sdn. Bhd., MEMC Electronic Materials S.p.A., MEMC Japan Ltd., MEMC Korea Company, MEMC LLC, Topsil GlobalWafers A/S

5.2 Occupational Safety and Emergency Response

5.2.1 Safe Environment

GlobalWafers strives to create a better, safer, and healthy working environment in order to promote sustainable development for the Company. In order to construct a safe working environment, all colleagues must participate in safety and health management activities through review, audit, communication, education and training, as well as hygiene management and timely adopt the corrective measures in addition to complying with relevant local safety and health regulations. Supervisors at all levels must provide sufficient resources and support; and departments are also encouraged to actively proposal improvement and training topics while taking the initiative to make “zero work injury & zero disaster” the basic attitude of self-requirement. The goal is to raise the awareness of oneself, the environment, the machines, and the products during construction in order to strengthen the overall safety of colleagues, manufacturers, and guests while creating a sustainable business environment.

All plants in Taiwan have introduced the occupational health and safety management system (ISO 45001) and used the systematic management mechanism (P→D→C→A) to fulfill the continuous improvement spirit of occupational health and safety management. The goal is to eliminate work environment hazards, reduce hazard risks, ensure all hazards are within the effective control range, continue to prevent occupational disasters, and fulfill the duty to ensure employee safety and health. Each year, the Company has conducted internal audits to inspect the management system implementation, and entrusted third-party verification units to perform external certification and system inspections in order to ensure management system effectiveness. All plants in Taiwan have obtained the ISO 45001 certification.

• Participation, Consultation, and Communication of Occupational Health and Safety Workers

In Taiwan, we have established Occupational Health and Safety Committees according to the plant regions. The committees are composed of management, engineering, technical, and labor representatives as well as medical staff and safety and health personnel. The labor representative ratio is higher than that required by laws and regulations, which accounts for over 1/3 of the total number of committee member seats. A regular Occupational Health and Safety Committee meeting is convened once every 3 months. This committee is responsible for the deliberation, coordination, and promotion of occupational health and safety related issues; and allowing employees to participate, consult, and communicate regarding the performance of the occupational health and safety management system.

Occupational Safety & Hygiene Committees for Respective Factories in Taiwan Region

Category	GlobalWafers	Taisil
Committee (Number of People)	20	32
Labor Representatives (Number of People)	7	19
Labor Representatives Percentage	35%	59%

The Company has established communication mechanisms such as employee suggestion boxes, labor-management meetings, communication meetings, employee relations systems, internal meetings between various departments, and website announcement boards to facilitate consultation and participation as well as listen to the needs and expectations employees and stakeholders. The Company has also provided education, training, and consultations in order to improve health and safety, environmental protection, and energy conservation awareness and competency.

Moreover, we also actively communicate with other workers who are not employees to establish contractor partnerships as well as operation management methods, and implement our commitment to health and safety. In addition to requiring the contractor to comply with the safety and health management laws and regulations, the contractor must also meet the Company's qualifications for construction personnel, equipment and materials, and safety protection before signing a contract with the Company. The Company shall inform the contractors of any working environment, project hazard risks, or relevant safety and health regulations before they enter the Company; and require them to participate in safety meetings convened by the safety and health management personnel.

• Hazard Identification, Risk Assessment, and Accident Investigation

We have identified all possible hazards for all Company operations, and evaluate the possible risks and injuries from such hazards. For example, we have evaluated and improved the various operating machines and equipment, chemicals, confined spaces, or warehouse stackers; and established various work safety and health management procedures, work standards, special hazard work controls, chemical management standards, and work environment monitoring provisions to serve as guidelines for colleagues. The objectives are to prevent occupational injuries and diseases, promote the physical and mental health of employees, create a high-quality and safe and healthy working environment, eliminate hazards as well as reduce environmental safety and health risks, and provide employees with a safe working environment. If any immediate danger at workplace is discovered, the worker can stop the operation and retreat to a safe location on his/her own without endangering the safety of other workers, and immediately notify the on-site supervisor without receiving any unfavorable punishment from the Company.

• Special Hazardous Operation Control

The Company has established the relevant operation control measures for operation projects with high potential risks such as special operations at elevated, hot and confined space, hanging, and fire-fighting interruption sites. Colleagues must apply in advance before executing such special operations, and conduct work safety inspections in advance to ensure work safety. Daily patrol inspection system must be implemented to detect anomalies in advance, avoid potential hazards, strengthen the safety and hygiene, prevent accidents, and achieve the disaster prevention objective in the work environment.

• Chemical Control

The Company has continued to conduct risk assessment of all chemical operations in the plants, established a chemical database and safety data sheet area, mastered high-risk operations, and develop risk mitigation plans to protect labor health and safety.

The safety and health unit has gained a full understanding of the chemical risks and management measures in the factory via the safety data sheet information provided by the chemical supplier and the Chemical Control Banding (CCB) tool, and conducted regular chemical reporting to the competent authority pursuant to the relevant laws and regulations. The chemical machines at the work site are equipped with local exhaust devices, affixed with chemical GHS labels in both Chinese and English, and the work area is equipped with a safety data sheet (SDS) to give colleagues a full understanding of chemical storage, hazards, and preventive measures during operations. In addition, highly flammable chemicals are stored in safety explosion-proof cabinets after use to reduce the risks of such chemicals. In addition to providing personal protective equipment according to the different features of the work area, colleagues are also arranged to conduct respiratory protective equipment snugness test every year to ensure proper protective equipment effectiveness.

Chemical GHS Hazard Labeling and Safety Data Sheet (SDS)

The screenshot displays the ESH (Environment, Safety, and Health) portal. At the top, there are five icons representing different safety topics: 環安衛宣導 (Safety Promotion), 安全資料表 (SDS), 環安衛活動 員工報名系統 (Safety Activity Registration System), GHS Chemicals & Product Safety Labels (GHS Chemicals & Product Safety Labels), and 充電設備 額外檢測 (季) 記錄表單 (Charging Equipment Additional Inspection (Quarterly) Record Sheet). Below these icons, there is a section for 'Reference Document' with details for 'PLNG Case/TEMPERATURE'. The main content area contains a list of safety notices and a table with columns for 'Chemical Name', 'Safety Data Sheet', 'Chemical Name', and 'Safety Data Sheet'. The table lists various chemicals and their corresponding SDS information.

Chemical GHS Hazard Labeling



Snuggess Tests on Breathing Protection Gears



• Monitoring of Operation Environment

To ensure workplace safety, the Company has appointed qualified industrial and mining sanitation technicians and work environment monitoring agencies to regularly study the operation monitoring plan pursuant to the "Regulations Governing Labor Work Environment Monitoring Implementation," performed risk classification management for health risk hazard chemicals defined by the "Standards of Permissible Exposure Limits at Job Site" and met the national standard CNS 15030 in reference to the "Hazardous Chemicals Assessment and Classification Management Measures," and exceeded the legal requirement in terms of gaining a full understanding of the possible hazardous exposures for colleagues in the working environment. The working environment monitoring results are publicly disclosed on the Company's bulletin board and inspected to ensure compliance with the laws and regulations. Any anomalies found in the monitoring results are corrected immediately to ensure a safe working environment for colleagues.

5.2.2 Occupational Health and Safety Worker Training

We have listed the following safety and health education training as compulsory courses for new and on-the-job employees: Hazardous substance identification, emergency escape drills, personal protective equipment wearing, fire training operations, mechanical protection, human musculoskeletal injury prevention, AED & CPR first aid training, etc. Through training and publicity, employees will gain sufficient environmental safety and health knowledge as soon as they enter the job, and reduce or eliminate any possible hazards or accidents. Employees engaging in special operations such as stackers, aerial work vehicles, hoisting cranes, etc., must receive professional training in order to obtain qualification certificates, and must wear the relevant personal protective gears in order to perform their work. The same requirements are also implemented for contractors. Fire drills, emergency response trainings, AED & CPR first aid trainings, and a number of occupational health and safety educations and trainings have been held in 2020. Trainings for occupational safety-related license personnel are also handled in accordance with relevant laws and regulations, and are managed and regularly tracked by our education and training system.

We have also provided education and training for employees engaging in noise, organic solvent, and

specific chemical substance exposure conditions that are particularly hazardous to health; issued appropriate safety protection equipment; and implement pre-employment physical exam as well as in-service annual physical exam health management to ensure the safety and health of employees at work. At present, there has been no work-related ill health involving employees engaged in special operations. In 2018 and 2019, over 7,300 and 10,100 employees have received safety and health education and training, respectively; and that number exceeded 11,300 in 2020. These numbers show the Company's commitment to convey employee safety awareness.



Note: The statistics cover GlobalWafers Headquarters, GlobalWafers Zhunan Plant, and Taisil Branch

• Contractor Management

The Company has formulated the contractor management measures to prevent personnel hazards or equipment loss caused by the relevant contractor operations in the Company, divide construction operations into general operations and special hazardous operations (open-fire, confined space, hanging, elevated, and other high-risk operations), and strictly controlled construction applications and risks. In addition to requiring contractors to assign supervisors to monitor the work on-site during construction, the project leader must also perform on-site supervision and management. Safety and health management personnel shall conduct irregular inspections to ensure all operations conform to safety, health, and environmental protection regulations; and to strengthen the construction safety management for contractor workers in the plant.

Moreover, GlobalWafers has also continued to promote occupational safety proposal competitions in recent years in order to create a comfortable and safe working environment. The award-winning units are selected based on the proposal contents and weighted scores, and are praised by the safety and health committee every quarter and issued bonuses for encouragement. The goal is to inspire employees to raise their safety and health awareness, promote active participation, and reduce occupational disaster incidents.

Contractor Safety as well as Health Education and Training



Occupational Safety and Health Education and Training



Occupational Safety and Health Education and Training for Aerial Operation Vehicles



GlobalWafers - Occupational Safety Proposal Competition



5.2.3 Emergency Response

The purpose of emergency response management is to enable immediate handling of emergency accidents in the plant, stop the expansion of disasters; enable correct and effective response strategies in case of an abnormal emergency; and minimize the personal injury, property damage, and environmental impact caused by such incidents. The Company has conducted emergency response team training, emergency escape, and evacuation drills every year in order to strengthen in-plant disaster relief as well as the colleagues' knowledge and familiarity with the working environment and escape lines. In addition, all plants in Taiwan have established poison response personnel in accordance with the law. The emergency response trainings held in 2020 include emergency response equipment training (fire-fighting & chemical protective clothing and SCBA control operations), chemical leakage drills in clean rooms, toxic chemicals and chemical leakage drills, earthquake drills, emergency rescue training, as well as fire and emergency escape and evacuation drills.

Epidemic Prevention Drill



First Aid Training



Toxic Chemical Substances - Potassium Dichromate Leak Handling Drill



Firefighting Operation Training



Emergency Escape and Evacuation Drill



5.2.4 Occupational Disaster Management

Disabling Injuries

Pursuant to the Occupational Health and Safety Act, the Company has established the “Occupational Disaster Prevention Plan” and “Injury, Disease, Incident Reporting Procedure” to serve as guidelines for incident investigation and handling. We have also established preventive and improvement measures to manage, track and report occupational injuries and diseases to ensure the safety of employees.

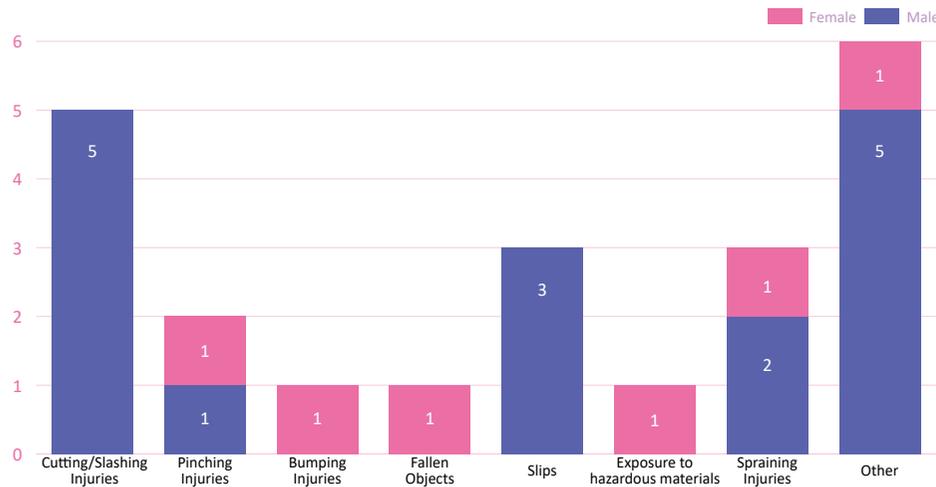
The department head as well as safety and health personnel shall conduct accident investigation and analysis when an accident occurs, and the accident unit shall be responsible for tracking and handling the accident until the case is closed. The safety and health management office shall report occupational disaster statistics to the Occupational Safety Unit of the Ministry of Labor on a month basis.

We have regularly implemented occupational health and safety education and training for employees and contractors to effectively prevent occupational disasters; and conducted work environment inspections and internal/external audits in order to review the Company’s environmental, safety, and sanitary operations. The goal is to ensure environmental safety for workers and achieve the zero-accident target.

Our occupational hazard statistics analysis data are generated based on disability injuries statistics indicator published by the Ministry of Labors and GRI. One million work hours being the base line, our statistics are mainly based on the Disabling Frequency Rate, (FR), Disabling Severity Rate (SR), Occupational Disease Rate(ODR) and Absence Rate(AR) (with disabling injury statistics excluding traffic accidents outside factories).

In 2020, there were 2 work-related injuries and disability incidents in Taiwan as well as 20 work-related injuries and disability incidents at overseas plants. Other types of accidents accounted for 27.27% of the total work-related injuries, and pinch injuries accounted for 22.73%. The disability injury rate in plants worldwide is 1.62 (1.63 for men and 1.56 for women), and the sever disabling injury rate is 40 (45 for men and 22 for women). There are no work-related ill healths and work-related deaths. According to the occupational disasters statistics for the past 3 years, the disabling injury rate and the disabling injury severity rate in 2020 were slightly lower than those of 2019. In addition, no work-related injuries have occurred among contractors operating in various plants at home and abroad in 2020.

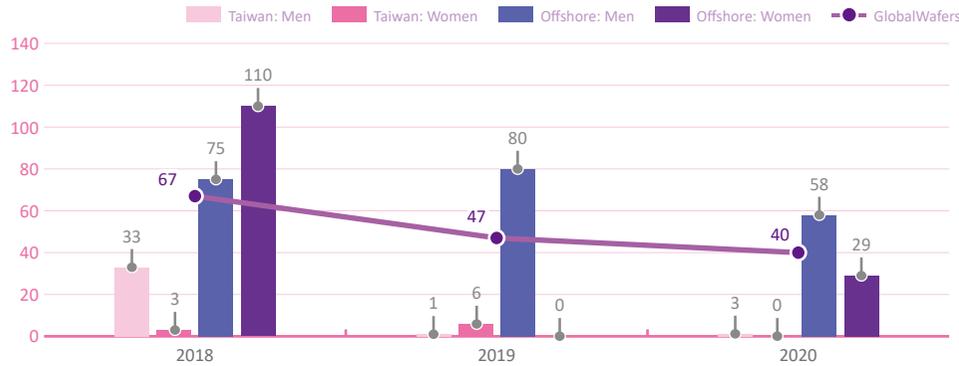
Statistics of Work Injury Types in 2020



Disabling Frequency Rate (FR)



Disabling Severity Rate (SR)



Note:

- Taiwan: GlobalWafers Headquarters, Zhunan Plant, Taisil Branch
- Overseas: GlobalWafers Japan Co., Ltd., Kunshan Sino Silicon Technolog, MEMC Electronic Materials Sdn. Bhd., MEMC Electronic Materials S.p.A., MEMC Japan Ltd., MEMC Korea Company.
- Disabling Frequency Rate (FR) = total number of disabled employees ×106 / Total work hours
- Disabling Severity Rate (SR) = Total number of work days lost to injuries ×106 / Total work hours
- Total work hours: Mandatory work days in respective factories × mandatory work hours × total number of employees for that factory

Year 2020 Occupational Accident Statistics	GlobalWafers (Taiwan)	
	Employees	Other non-employee workers
No. of people	1,592	92
Work Hours	3,158,528	271,790
No. of disability injuries	2	0
Days of disabling injuries	6	0
Death toll due to work	0	0
No. of severe occupational accidents	0	0
No. of recordable occupational injuries	10	0
Recordable occupational injury rate (IR)	0.633	0
Occupational Disease Rate (ODR)	0	0

Note:

- Other non-employee workers: Refer to workers who are not employees but whose work and/or workplace are controlled by the organization. Divide the total number of workers for the year by 365 to calculate the average number of people entering the plants every day.
- Work hours: Employees - calculated based on the actual work hours of the year. Other non-employee workers - calculated based on the total number of workers for the whole year, followed by 8 hours per day.
- Severe occupational disasters: Injuries in which workers are unable or cannot recover to their pre-injury health status within 6 months after the occupational injuries.
- Recordable occupational injuries: Refer to occupational injuries that caused death, loss of work, restricted work, or work transfer; emergency care or higher level medical treatment; loss of consciousness; and serious injury or illness diagnosed by a doctor.
- Recordable occupational injury rate (IR): (recordable occupational injury number / total working hours) * 200,000
- Occupational Disease Rate (ODR): (total number of work-related ill health / total working hours) * 200,000

5.2.5 Healthy Workplace

Employees are the most valuable asset of GlobalWafers. We are committed to creating a safe and comfortable working environment, and regard employee health as the key element to Company success and sustainable development. Take the Taiwan region as an example. The plants have set up medical rooms, equipped with full-time nurses and special professional medical doctors, and continues to promote the 4 core protective measures: maternity protection, human injury prevention, overwork prevention, and illegal infringement prevention. The goal is to protect the physical and mental health of colleagues, create a happy and healthy workplace environment via diversified health care programs, and provide irregular health seminars and various types of health promotion activities.



• The Four Pillars of Health Protection

Pillars	Execution direction	2020 results
Maternity care	Assessment of health risks is conducted for female employees during pregnancy, after childbirth, and prior to return to the workplace. The mental and physical health of pregnant, postpartum, and breastfeeding employees is guaranteed via the provision of consultation and concern.	Level-I management: 23 people Level-II management: 0 people (GlobalWafers 11 people; Taisil 12 people) Health risk assessment completion rate: 100%
Prevent overload	Based on employee health examination data, Framingham Risk Scores and burnout scale, high-risks groups are screened and identified. Workplace physicians are arranged to give consultations and health guidance with follow-up tracking and concern. Meanwhile, department supervisors are notified for stringent control and management of their work hours so as to prevent occurrence of employee burnout.	Tracking management: 457 people (GlobalWafers 37 people; Taisil 420 people)
Prevention of unlawful violation	To provide a healthy and positive workplace, we conduct a risks assessment for the entire factory once every two years. Positivity courses like unlawful violation and spiritual growth are arranged to construct an excellent work environment.	Lectures on prevention of workplace violence, sexual harassment, and interpersonal relations.
Prevention of ergonomic hazards	We conduct ergonomic hazard risks surveys on all departments based on their work content/operation. Operation observation, personnel interviews and medical treatment record investigation are conducted to screen and identify priority improvement targets (operation). Next, based on their operation hours, loading of weight, postures and work conditions, a quantitative risk assessment is in place for the risk grade calculation (KIM) to gradually improve the operation/construction by the year and to prevent the ergonomic hazards.	Human-factor hazard risk assessment: 1 case (Details are described below)

• Maternity Health Protection

To prevent workplace health hazard exposure to female colleagues, we have established a maternal health protection plan and implemented the maternal health risk assessment accordingly in order to protect the health of female colleagues of childbearing age in the workplace, and prevent female colleagues who are pregnant or have a child of less than 12 months old from exposure to health hazards at workplaces that may affect embryonic development or effect the health of mothers and infants during pregnancy or lactation. The Company has implemented hierarchical management and work adjustments after referencing comprehensive evaluations from professional medical doctors to provide exclusive parking spaces, breast collection rooms, care armbands for pregnant colleagues, and create a friendly working environment for working mothers.

Exclusive Parking Spaces and Care Armbands for Pregnant Colleagues



Breastfeeding Room



• Prevention of Diseases Triggered by Irregular Workloads

To prevent diseases triggered by work shifts, nighttime work, long work hours and other irregular workloads, we establish plans to prevent diseases triggered by work overloads. Summarized analysis is conducted based on all employees' health examination data, work hours, and overwork questionnaire results. Tier management is implemented and high-risk groups are listed accordingly. Via interviews with company's medical doctors and health guidance and adoption of preventive measures, we lower risks of triggered diseases and ensure employees' mental and physical health.

• Prevention of Unlawful Violation

To provide a friendly workplace environment, the plants have established the workplace violence protection management measures to prevent physical or mental violations due to other people's behavior when performing duties; posted a workplace violence prevention statement on the factory's announcement board; provided multiple complaint channels to employees; conducted regular workplace violence risk assessments; planned the relevant safety measures based on the survey results; and regularly conducted seminars on workplace violence prevention, sexual harassment prevention, and interpersonal relations to ensure employee safety at work and protect their physical and mental wellbeing.

• Human-factor Injury Prevention

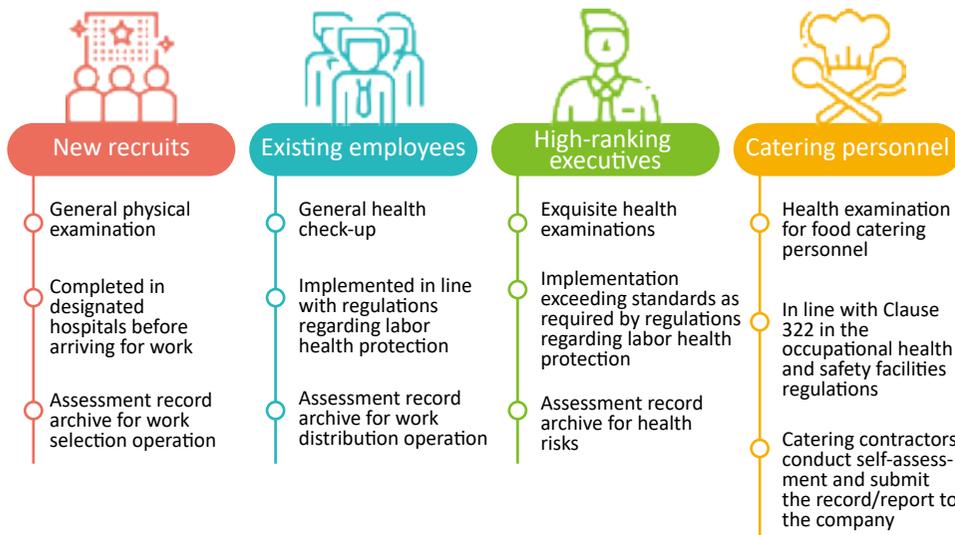
To prevent human-factor hazards and avoid repetitive musculoskeletal injuries, a human-factor hazard prevention plan has been established to issue a comprehensive musculoskeletal injury survey questionnaire. The goal is to investigate and screen suspected medium- and high-risk hazard cases, conduct on-site job evaluation by occupational health managers and provide professional medical doctor interviews and guidance, and recommend improvements based on the evaluation results. In 2020, one medium-to-high load human-factor risk was discovered. After case review, an integrated smart robot storage system has been established to reduce the risk of musculoskeletal injury to employees.

Smart Robot Storage System



• Health Promotion and Reinforcement of Health Concepts

GlobalWafers has implemented diversified health care for employees. Each year, the Company has formulated an health management and improvement plan in order to maintain the health of employees according to the overall employee health exam data analysis. The relevant physical and health exams are also provided to operators of different ethnic groups. All of the implementation items and frequency have exceeded the regulation requirements. Free medical institution cancer screenings for colorectal cancer, cervical cancer, mammography, oral cancer, etc., are also provided to employees so they may better grasp their health status. Upon completion of health check operations, professional on-site medical personnel will conduct follow-up tracking regarding abnormal results. This data serves as a key reference for health improvement activities and health promotion initiatives.



Our health care centers perform statistical analysis based on the annual health exam results, plan the health promotion activity and lecture topics for the year, arrange consultations with the clinic service physicians, and collaborate with the medical and healthcare services provided by the Hsinchu Science Park employee clinic to promote preventive medicine and disease prevention while strengthening health awareness for colleagues.

In 2020, the health centers have promoted numerous health management events with up to 4,136 participants. The events include cancer screening, health lectures (cancer prevention, metabolic syndrome prevention, winter cardiovascular care, etc.), and emergency rescue courses to help employees build the correct health care knowledge and improve health care awareness. There is also the annual employee influenza vaccination activity to enhance employees' defenses and reduce the chance of workplace group infections. The Company also holds regular blood drives and offers gift cards as participation reward to encourage colleagues to donate blood, embrace charity work, and show the spirit of care.

To ensure workplace environment safety, the Company has established the emergency response staff in addition to the emergency personnel for each shift as required by the law. The Company's plants contain 24-hour automatic external defibrillator (AED) and emergency rescue kits to give first-line rescue personnel to have sufficient and complete rescue equipment when performing rescue work. The Company also holds annual CPR+AED practical operation skills courses, "In-plant Emergency Rescue Response Measures and Chemical Splash Cleanup Course," and arranges for emergency rescue personnel and staff to participate in such courses. The goal is to enable the plants to effectively and immediately take appropriate emergency rescue measures in case of an accident, establish a safe workplace environment, and win the certificate of safe workplace from the Ministry of Health and Welfare.

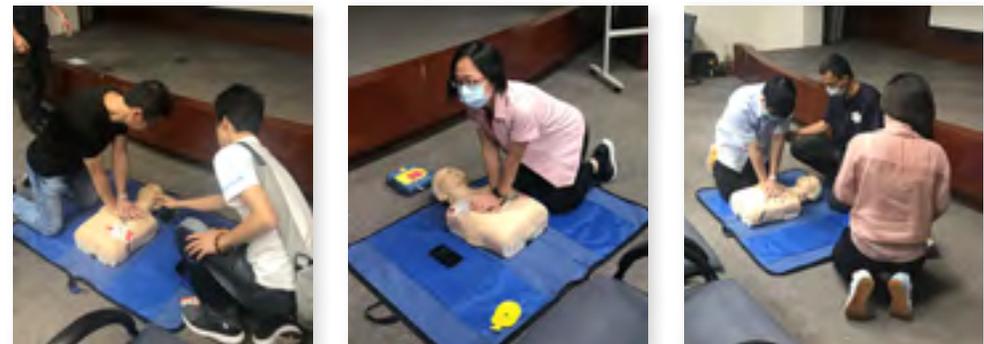
Moreover, the Company has established a comprehensive epidemic prevention mechanism and set up an active infectious disease notification system in order to prevent the threat of infectious diseases in the workplace and ensure continuous and normal company operations. The Company also posts the latest domestic and foreign epidemic information on the internal website in an irregular basis to remind colleagues to strengthen personal hygiene and strengthen their epidemic prevention knowledge. We have organized free influenza vaccination activities in the plants each year to strengthen employees' flu resistance, and provided "epidemic prevention kits" for colleagues to carry along during business trips to provide epidemic and disease prevention related information as well as health promotion, and help to protect colleagues from the threat of disease during business trips.

2018~2020 Health Promotion / Emergency Rescue Events

Unit: No. of people

Year	2018	2019	2020
GlobalWafers - Taiwan (GlobalWafers Headquarters, Zhunan Plant, Taisil Branch)	4,443	4,556	4,136

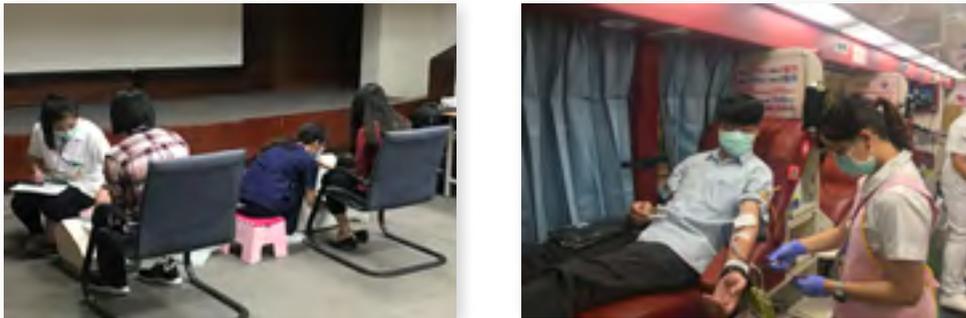
CPR and AED Training Courses



Muscle Gain and Fat Reduction Course Activities, Flu Shots, and Health Promotion Lectures



Bone Density Testing, Blood Donation Activities



Special Ethnic Group Tracking and Health Care

GlobalWafers' health centers provide comprehensive health care; healthy nutrition consulting services; and consultation to high-risk groups, maternal health protection groups, and new recruits whose physical and health exams showed abnormal results. The Company also arranges physician consultation and care as well as psychological support according to individual needs.

In addition, the Company will also provide care and psychological support to colleagues who have suffered a work injury or traffic accident via professional medical consultations according to case factors and assist them to return to work as soon as possible. A nurse will continue to provide follow up care over the phone for cases that are still open, and report the recovery status of the case to the unit supervisor.

Number of Services for Special Ethnic Groups and Number of People Tracked from 2018 to 2020

YEAR		2018	2019	2020
GlobalWafers - Taiwan	Number of service sessions	884	1,346	1,298
	Number of people being tracked	887	1,051	1,113

Note: ※ GlobalWafers - Taiwan include the Hsinchu Plant / Zhunan Plant, and Taisil Branch

※ Definition of special ethnic group:

- (1) Overload prevention (GWC: Follow the current year to track B2 level or higher based on the management method for abnormal workloads prevention / TEM: doctor suggested interviews, Framingham Risk Score 10% or more + overload in the overload scale)
- (2) Maternity (track the case accepted in the current year),
- (3) Disability (track the current year, once every 2 years),
- (4) Newcomers (GWC: those receiving instructional leaflets due to abnormal physical exams / TEM: according to the physical exam grade level 3 or higher),
- (5) special grade 2
- (6) annual health checkup (GWC: those who are above grade C according to the physical exam grade / TEM: those who are above grade 3 according to the physical examination grade),
- (7) Work injury (statistics based on the day of occurrence),
- (8) Psychology (GWC: Mental Health Scale 19 points or higher, suicidal intention select 1 / TEM overwork medium load or higher).

Health Information & Health Promotion Platform

To enable employees to gain the correct health care knowledge, the health center has provided employee disease information and consulting services, established a health management website and electronic bulletin board within the Company, and delivered or posted various health information on an irregular basis for reference by the colleagues. For health promotion / healthcare activities and health knowledge, employees can learn the latest information and activities through the website and grasp the latest health related information in real time.



E-bulletin updates Health Information sporadically



Health news column and marquee provide health and epidemic prevention propaganda

5.3 Social Participation

GlobalWafers encourages employees to share their love, make contributions, interact with the society, care about disadvantaged groups and fulfill corporate social responsibility. In Taiwan, we have actively participated in the remote area dream realization project, sponsored various social welfare activities by disadvantaged children and public welfare organizations, and practiced the “taken from society, and give back to society” corporate citizenship concept.

The work of protecting the ocean, the earth, and Taiwan starts from our own efforts. GlobalWafers has adhered to the principle of environmental conservation and giving back to the society by actively promoting and responding to environmental protection activities. In 2020, the Company held a total of 2 beach cleaning and eco-tour events. We hope to encourage colleagues as well as their relatives and friends to participate in environmental protection through these events, arouse their environmental and ocean protection awareness, exert their influence and convince others to help reducing plastics and other wastes, and contribute to environmental protection.

2020 Feedback and Participation

Donation Activities	Recipient Organization	Quantity
Sending care to rural areas event	Taiwan World Outlook Conference	\$494,000
Mid-Autumn Festival moon cake donation charity event	Shihguang Nursing Home Huakuang Mental Development Center Private Hiangyuan Memorial Correctional Home	\$68,000
Shopping Bag Charity Sale-"Health and Epidemic Prevention Plan for Children of Disadvantaged Families"	Taiwan World Outlook Conference	\$15,000
2020 Hsinchu Family Support Center "Thank Goodness for You" Winter Warmth Kindergarten Party	Hsinchu Family Support Center	\$10,000
Zhunan Longfeng Fishing Port Beach Cleaning and Forest Protection Event	-	A total of 149 people participated in the two events and remove a lot of garbage.
Nanliao Fishing Port Beach Cleaning Event	-	
Yilan Leshui Tribe Life Experience	Hsinchu Science Park Industrial Safety and Environmental Protection Month Series Event	A total of 240 people participated in the two events
Miaoli Nanzhuang Ecological Visit		
Blood Donation Activity	Blood Donation Center	Donated a total of 62,000 cc of blood

Charity Activity Highlights

Mid-Autumn Festival Care Donation



Rural Area Winter Warmth Donation



Family Support Winter Warmth Kindergarten Party



Blood Donation Activity



Beach Cleaning and Forest Protection Event



Eco Tour Events



GRI Guideline Index

Index No. (Core Selection*)	Description	Corresponding Chapters	Page No.	Note / Reasons for Non-disclosure	External Assurance
Organizational Profile					
102-1 *	Name of the organization	About GlobalWafers	11		☉
102-2 *	Activities, brands, products, and services	About GlobalWafers	11		☉
102-3 *	Location of headquarters	About GlobalWafers	11		☉
102-4 *	Operation Site	About GlobalWafers	11		☉
102-5 *	Nature of ownership and legal form	About GlobalWafers	11		☉
102-6 *	Markets Served	About GlobalWafers	11		☉
102-7 *	Scale of the organization	About GlobalWafers 2.3 Operation performance	11 33		☉
102-8 *	Information on employees and other workers	5.1 Employee Care	64		☉
102-9 *	Supply Chain	3.4 Industry Supply Chain & Management	47		☉
102-10 *	Significant changes to the organization and its supply chain	About GlobalWafers	11		☉
102-11 *	Precautionary Principle or approach	2.4 Risk Management	34		☉
102-12 *	External initiatives	—		Not Attending Relevant Advocacy	☉
102-13 *	Membership of associations	About GlobalWafers	11		☉
Strategies					
102-14 *	Statement from senior decision-maker	Message from the Chairperson	9		☉
102-15 *	Key impacts, risks, and opportunities	2.4 Risk Management	34		☉
Ethics and Integrity					
102-16 *	Values, principles, standards, and norms of behavior	2.2.2 Ethics and integrity	27		☉
102-17 *	Ethics-related Suggestions and Matters of Concern Mechanism	2.2.2 Ethics and integrity	27		☉
Governance					
102-18 *	Governance Structure	2.1 Sustainable organization 2.2.1 Governance Structure	23 24		☉

Index No. (Core Selection*)	Description	Corresponding Chapters	Page No.	Note / Reasons for Non-disclosure	External Assurance
Stakeholder Engagement					
102-40 *	List of stakeholder groups	1.1 Stakeholders identification	17		◎
102-41 *	Collective bargaining agreements	—		There are currently no union organizations in our Taiwan region, hence no employees having signed group agreements.	◎
102-42 *	Identifying and selecting stakeholders	1.1 Stakeholders identification	17		◎
102-43 *	Approach to stakeholder engagement	1.2 Stakeholder Engagement and Response	17		◎
102-44 *	Key topics and concerns raised	1.3 Identification and analysis of material issues	18		◎
Reporting Practice					
102-45 *	Entities included in the consolidated financial statements	About This Report	1		◎
102-46 *	Defining Report Content and Topic Boundaries	1.3 Identification and analysis of material issues	18		◎
102-47 *	List of material topics	1.3 Identification and analysis of material issues	18		◎
102-48 *	Restatements of information	5.1.1 Human Resources 5.1.3 Manpower Cultivation 4.2 Waste management 4.3.3 Water resource management	64 67 53 59	Calculation formula adjustment for new hires/leavers Average training hours of employees for men and women/direct and indirect average training hours In response to ESG data collection, after definition clarification, recollect the data and split the processing method into more items Change to new GRI-303 version definition to distinguish Water withdrawal/drainage/water consumption	◎
102-49 *	Changes in reporting	About GlobalWafers	11	To enhance operating efficiency, Taisil Electronic Materials Corp. has been merged as the Taisil Branch in February 2020	◎
102-50 *	Reporting Period	About This Report	1		◎
102-51 *	Date of most recent report	About This Report	1		◎
102-52 *	Reporting Cycle	About This Report	1		◎
102-53 *	Contact point for questions regarding the report	About This Report	1		◎
102-54 *	Claims of reporting in accordance with the GRI Standards	About This Report	1		◎
102-55 *	GRI Content Index	GRI Guideline Index	82		◎
102-56 *	External assurance	Verification Disclaimer	87		◎◎



Index No. (Core Selection*)	Description	Corresponding Chapters	Page No.	Note / Reasons for Non-disclosure	External Assurance
Category: Economy					
Economic Performance (material issues-financial performance, financial soundness, business strategy, and financial goals)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 2 Governance and Operation	18 20		⊙
201-1	Direct Economic Value Generated and Distributed by Organizations	2.3 Operation performance	33		⊙
201-2	The financial impact, other risks and opportunities that climate change caused on organizational activities.	2.4 Risk Management	34	Other risks caused by climate change on organizational activities are illustrated, but its financial impact is not yet calculated.	⊙
Anti-Corruption					
205-2	Communication and training about anti-corruption policies and procedures	2.2.2 Ethics and integrity	27		⊙
205-3	Confirmed incidents of corruption and actions taken	2.2.2 Ethics and integrity	27	No occurrence of corruption incidents	⊙
Category: Environment					
Materials (material issues - source reduction, waste management)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 4. Sustainable Environment	18 50		⊙
301-2	Recycled input materials used	4.3.1 Raw Material Re-Utilization	55		⊙
301-3	Reclaimed products and their packaging materials	4.3.1 Raw Material Re-Utilization	55		⊙
Energy (material issue - pollution prevention)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 4. Sustainable Environment	18 50		⊙
302-4	Reduce Energy Consumption	4.3.2 Energy Management	55		⊙
Water (material issue - resource management)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 4. Sustainable Environment	18 50		⊙
303-1	Interactions with water as a shared resource	4.3.3 Water Resources Management	59		⊙
303-2	Management of water discharge-related impacts	4.3.3 Water Resources Management	59		⊙
303-3	Water withdrawal quantity	4.3.3 Water Resources Management	59		⊙
303-4	Water discharge	4.3.3 Water Resources Management	59		⊙
303-5	Water consumption quantity	4.3.3 Water Resources Management	59		⊙



Index No. (Core Selection*)	Description	Corresponding Chapters	Page No.	Note / Reasons for Non-disclosure	External Assurance
Emissions (material issue - greenhouse gas reduction)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 4. Sustainable Environment	18 50		⊙
305-1	Direct (Scope 1) GHG emissions	4.1.1 Greenhouse gas	52		⊙
305-2	Energy indirect (Scope 2) GHG emissions	4.1.1 Greenhouse gas	52		⊙
305-5	Reduction of GHG emissions	4.1.1 Greenhouse gas	52		⊙
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	4.1.1 Greenhouse gas	52		⊙
Wastewater and Waste					
306-2	Waste classification by types and disposal methods	4.2 Waste Management	53		⊙
306-3	Severe Spills	4.2 Waste Management	53		⊙
Environmental Compliance (material issue - compliance with regulations)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 2 Governance and Operation	18 20		⊙
307-1	Non-compliance with environmental laws and regulations	2.2.4 Legal Compliance	31		⊙
Category: Society					
Labor-Management Relationship					
401-1	New employee hires and employee turnover	5.1.1 Human Resources	64		⊙
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	5.1.2 Remuneration and Benefits	66		⊙
401-3	Parental leave	5.1.2 Remuneration and Benefits	66		⊙
Occupational Health and Safety (material issues - Occupational Safety and Emergency Response)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 5 Friendly Workplace	18 62		⊙
403-1	Occupational health and safety management system	5.2.1 Safe Environment	69		⊙
403-2	Hazard identification, risk assessment, and incident investigation	5.2.1 Safe Environment	69		⊙
403-3	Occupational health services	5.2.1 Safe Environment	69		⊙
403-4	Worker participation, consultation, and communication on occupational health and safety	5.2.1 Safe Environment	69		⊙



Index No. (Core Selection*)	Description	Corresponding Chapters	Page No.	Note / Reasons for Non-disclosure	External Assurance
403-5	Worker training on occupational health and safety	5.2.1 Safe Environment	69		⊙
403-6	Promotion of worker health	5.2.5 Healthy workplace	76		⊙
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	5.2.2 Occupational Health and Safety Training for Workers	72		⊙
403-8	Workers covered by an occupational health and safety management system	5.2.1 Safe Environment	69		⊙
403-9	Work-related injuries	5.2.4 Occupational Disaster Management	75		⊙
403-10	Work-related ill health	5.2.4 Occupational Disaster Management	75		⊙
Training and Education (material issue - employee education & training)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 5 Friendly Workplace	18 62		⊙
404-1	Average hours of training per year per employee	5.1.3 Talent Cultivation	67		⊙
404-2	Programs for upgrading employee skills and transition assistance programs	5.1.1 Human Resources 5.1.3 Talent Cultivation	64 67		
404-3	Percentage of employees receiving regular performance and career development reviews	5.1.3 Talent Cultivation	67		⊙
Diversity and Equal Opportunity					
405-1	Diversity of governance bodies and employees	2.2.1 Governance Structure 5.1.1 Human Resources	24 64		⊙
Non-discrimination					
406-1	Discrimination incidents and improvement action taken	5.1.4 Human rights	69	No occurrence of discrimination incidents	⊙
Human Rights Assessment (material issue - human rights)					
103	Management Approach	1.3 Identification and analysis of material issues Chapter 5 Friendly Workplace	18 62		⊙
412-2	Employee training on human rights policies or procedures	5.1.4 Human rights	69		⊙
Customer Privacy					
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	3.1 Innovation management	42	No complaints regarding customer privacy violation or customer data loss	⊙
Socioeconomic Compliance (material issue - compliance with regulations)					
103	Management Approach	1.3 Identification and Analysis of Material Aspects Chapter 2 Governance and Operation	18 20		⊙
419-1	Non-compliance with laws and regulations in the social and economic area	2.2.4 Regulation compliance	31		⊙

Independent Assurance Statement





GlobalWafers Co., Ltd.

No. 8, Industrial East Road 2, Hsinchu Science Park, Hsinchu

TEL: +886-3-577-2255

FAX: +886-3-578-1706/+886-3-579-0405