

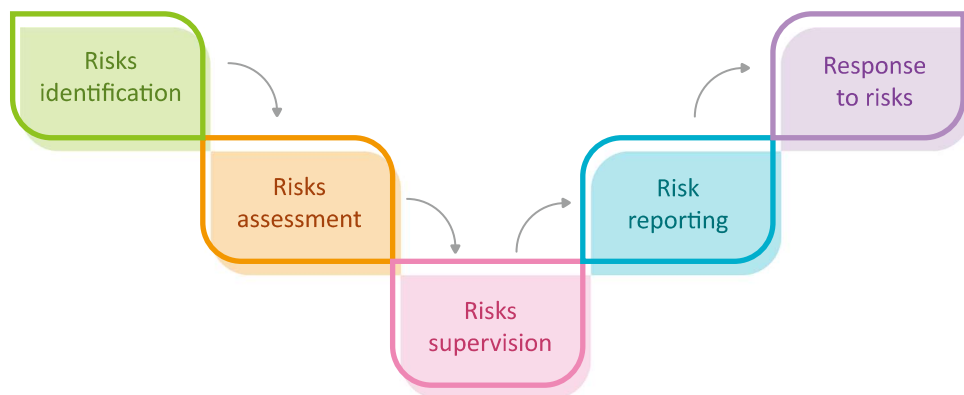


2.4 Risks management

In response to the rapidly changing management environments and to ensure the company's stable management and sustainable development, GlobalWafers has formulated the "Risk Management Policies" and "Risk Management Guidelines" in 2015. In 2021, the Company had integrated the relevant information and redefined the "Risk Management Policy and Procedures" to establish an effective risk management mechanism, assess and supervise risk tolerance, monitor risk exposure status, determine risk response strategies, and comply with risk management procedures.

The board of directors is the highest risk management unit under GlobalWafers' risk management organizational structure. Base on the overall operating strategies and operating environment, the board of directors aims to comply with laws and regulations, promote and implement the Company's holistic risk management, and bear the ultimate responsibility for risk management; the senior management is responsible for planning, commanding, and deploying the implementation of risk management decisions by the board of directors, and coordinating interaction and communication for the cross-departmental risk management; each functional unit is responsible for analyzing, managing and monitoring related risks within their respective units. An internal audit is an independent unit that assists the board of directors in monitoring the implementation of the risk management mechanism to ensure the effective implementation of the risk control mechanism and procedures.

GlobalWafers' risk management procedure includes risk identification, assessment, supervision, reporting, and response operations. With this risk 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

Each functional unit or business undertaker shall be the responsible risk-control person for the business it undertakes. This entity must execute the operations according to the relevant business's internal control system and provisions and serve as the initial risk discovery, assessment, and control unit.

Tier-2 liability

The powers and responsibilities of each functional unit or the assigned risk management personnel of the functional unit shall be responsible for the risk management of the relevant businesses. This entity shall review the operation rules or operation manuals according to the actual business operations, pay attention to the competent authority's latest regulations revisions or amendments and business-related decrees or orders, and amend the relevant internal provisions when necessary.

Tier-3 liability

Senior management must review the integrity of the company's risk management-related mechanisms, supervise the risk management implementation and effectiveness, and report to the board of directors regularly.





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 compliance status of risks management procedure. The ESG risks and opportunities that we have identified are illustrated below.



Corporate Governance Aspect	
Identified risks	Strategies of turning risks into opportunities
All risks involving management and investment	<ul style="list-style-type: none"> Proactively establish a comprehensive up-, middle- and down-stream integrated supply chain to expand the operation scale and to 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 cultivate in the advanced technology R&D, 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 G5 mobile telecommunication. Establish an information security risk management structure and policy, strengthen the information security management awareness, and prevent possible information security risks and losses by implementing specific management plans as well as related education and training.
Challenges for relationship maintenance and communication with internal & external stakeholders	<ul style="list-style-type: none"> Strengthen the stakeholder area on the Company's website, hold legal seminars regularly, and build a communication channel with our stakeholders to understand and respond to issues of concern for all stakeholders.
Strengthen the Board of Directors' Competency	<ul style="list-style-type: none"> Improve the board of directors' structure and its member composition, implement corporate governance policies and specific incentive measures, formulate relevant governance provisions, and clearly define the punishment and appeal system to enhance the sustainable value of the enterprise.
Regulation Compliance Risks	<ul style="list-style-type: none"> Continue to monitor the revisions of relevant laws and regulations, ensure compliance with laws and regulations by adding and revising the corresponding internal procedure specifications, and provide education and training.



Environmental Aspect	
Identified risks	Strategies of turning risks into opportunities
Climate change risks	<p>The management is conducted in two major aspects: mitigation and adaption.</p> <p>Mitigation</p> <ul style="list-style-type: none"> 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. Implement water-conservation measures and increase the use of reclaimed water. <p>Adaption</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Install the pollutant emission supervision system; devote to pollutant reduction. Strengthen 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
Risks for occupational health and safety	<ul style="list-style-type: none"> 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.
Labor Health Risks	<ul style="list-style-type: none"> 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. The factory has established a Covid Contingent Action(CCA) epidemic prevention team in response to COVID-19 to provide rolling adjustment of the plant's epidemic prevention measures and plan epidemic prevention-related employee benefits according to the COVID-19 development. The actions include providing vaccination incentives and purchasing additional employee group insurance to cover new statutory infectious diseases. The goal is to establish a friendly workplace environment, ensure employee health, and enable them to work without worries.
Risks for labor-management relationships	<ul style="list-style-type: none"> 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. Work hours and output management: Stipulate clear job descriptions and establish work goals. We have adopted work hours and output management to ensure the value and rationality of work, ensure that colleagues can create value under the premise of harmony between work and life, and reduce the risk of labor disputes. Employee complaints channel: Install designated personnel for handling employee opinions, handle problems raised by employees in a timely manner, reduce labor-management conflicts.

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





Climate change risks and opportunities

Climate change is one of the key environmental issues that the United Nations, governments, societies, and enterprises worldwide are most concerned about. GlobalWafers has complied with the framework of the Task Force on Climate-Related Financial Disclosures Recommendation (TCFD) promulgated by the Financial Stability Board to disclose climate change-related information, assess the risks and opportunities of climate change for the Company. Disclose climate change-related information based on 4 core elements: governance, strategy, risk management, and indicators and targets.

Climate Change Governance

The GlobalWafers' Sustainable Development Committee is the Company's highest climate change management organization. This committee is chaired by the chairperson and has 3 subcommittees: Environmental, Governance, and Social. The Environmental Committee is fully supported by the board of directors. The chairperson is responsible for overseeing the Environmental Committee's operations; reviewing the Company's climate change vision, policies, and goals; managing climate change risks and opportunities; reviewing the implementation status; and discussing future plans. The chairperson shall be responsible for reporting the Company's climate-related affairs to the board of directors. The report shall serve as a key reference to formulate the Company's policies on sustainability.

The Environmental Committee shall be responsible for the following:



Climate Change Strategy

The United Nations Framework Convention on Climate Change (UNFCCC) proposed 2 main strategies to face global warming and climate change during the convention meeting: Mitigation is greenhouse gas emission reduction or increased greenhouse gas storage through human intervention to slow the speed or scale of climate change problems. Adaptation is to seek strategies that can effectively reduce the effects of climate change by assessing its impacts and taking preventive measures to minimize damage or exploit beneficial opportunities.

To effectively implement energy conservation and carbon reduction, GlobalWafers has set 2019 as the benchmark year to set short, medium, and long-term carbon emission reduction targets. Among the adaptation strategies, the Company has implemented simulation exercises as well as education and training for the substantial risks brought by climate change to the Company's assets and established extensive and rigorous preventive measures and emergency response plans. Should a crisis or disaster occurs, immediately propose the most appropriate response and recovery plan to minimize the uncertainty and possible impact of the disaster.

In terms of transition risks, the Company has followed the energy diversification trend, complied with the "Renewable Energy Development Act" related specifications and goals, invested in high costs to cope with the pressures of a low-carbon economy brought by climate change, and the relevant departments have started to plan and purchase renewable energy and green power certificates.





Climate Change Risk Management

After referencing the TCFD framework, the Environmental Committee shall review domestic and foreign research reports, documents, and integrate the evaluation data of various departments and subsidiaries; and then rank the importance of risk topics by screening climate risk issues via multiplying the intensity of financial or strategic impacts by the probability of occurrence to determine the risk value. The goal is to formulate risk management policies for effective identification, measurement, assessment, monitoring, and control; take specific action plans to reduce the impact of related risks; and adopt specific action plans to mitigate the effects of associated risks.

Climate Change Indicators and Targets

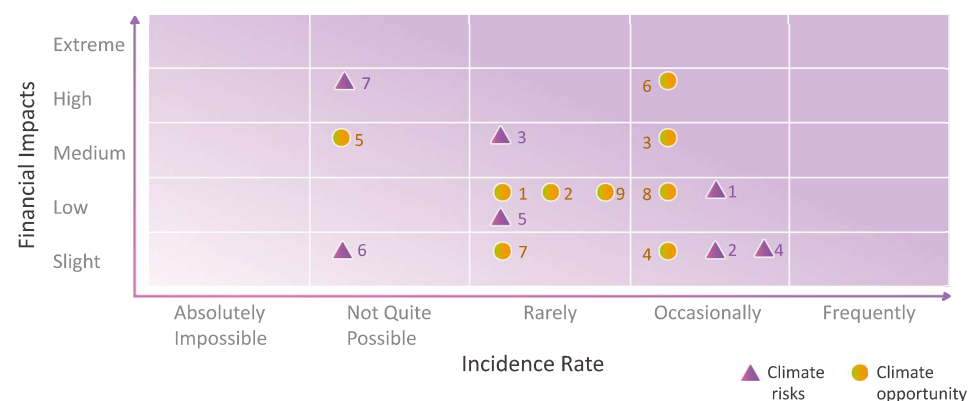
To effectively manage the impact of climate change-related risks and opportunities on GlobalWafers, GlobalWafers has taken practical actions to support the net-zero transformation and pledged that all subsidiaries under the Group will use 100% renewable energy by 2050. Our global production bases have stipulated the schedule to fully incorporate ISO 14064 greenhouse gas inventory and third-party verification; ISO 50001 energy management system and third-party verification by 2024; and set short-, medium-, and long-term greenhouse gas reduction targets. In addition to striving to improve energy efficiency, signing a Power Purchase Agreement (PPA), and purchase of Renewable Energy Certificates (RECs); the Company has also set the phased goals for the climate blueprint: achieve 20% by 2030, 35% by 2035, and 50% by 2040 in terms of renewable energy adoption. We aim to gradually accomplish the long-term goal of using 100% renewable energy by 2050 to reduce carbon emissions from power generation.

Climate Change Identification and Assessment

GlobalWafers has adopted the Nationally Determined Contributions (NDC), the Well-Below 2°C of Science-Based Targets (SBT), and used 1.5°C as the foundation for scenario analysis to conduct a financial impact assessment and continue to improve management for some climate change risks. GlobalWafers has completed the latest climate risk assessment by the end of 2021, which highlighted the following 8 major climate risk items and explained the impacts and countermeasures for each risk opportunity: increased costs of greenhouse gas emissions, renewable energy regulations, market uncertainty, increased investment costs in new technologies, increased raw material costs, impact on company image, increased severity of extreme weather events, and rising average temperatures.

GlobalWafers has also identified feasible opportunities and developed countermeasures to reduce the preceding risk factors. The goal is to promote cleaner production, water resources management, carbon information disclosure, new/low-carbon technologies, and other project development measures.

Serial no.	Climate risks	Serial no.	Climate opportunity
1	Average temperature rise	1	Promote cleaner production
2	Extreme climate events with increased severity - water shortage	2	Water resource management
3	Extreme climate events with increased severity - electricity consumption increase	3	Adopt new/low carbon technologies
4	Increased raw material/transportation costs	4	Policy reward
5	Impact the Company's image	5	Carbon information disclosure
6	Renewable energy regulations	6	Production process
7	Market uncertainty	7	Develop new products or services via R&D and innovation
8	Increased new technologies investment costs		
9	Increased greenhouse gas emission costs		



Note: The financial impact index is divided into 5 grades, and the economic impact score is 1-5 points.

Note: The probability of risk occurrence is divided into 5 grades: 5 = certain occurrences, 4 = many occurrences in 10 years, 3 = more than one occurrence in 10 years, 2 = never occurred in 10 years, and 1 = never occurred.





Climate Change Risks and Opportunities with Major Financial or Strategic Impacts

Type	Climate risks	Description of potential financial impacts	Impact level	Coping Strategies/Cases
Physical risks	Immediacy	Average temperature rise	Low	The factories worldwide are scheduled to fully introduce the greenhouse gas inventory and energy management system by 2023, and senior executives will execute greenhouse gas emission reduction
		Extreme climate events with increased severity	Low	Timely deploy the water configuration systems and promote water-conservation measures in each plant
	Long-term	Increased raw material/transportation costs	Medium	Introduce energy management systems in all factories and implement various energy-conservation measures
		Increased operating costs	Slight	Supplier for alternate materials required
Transformation risks	Goodwill	Impact the Company's image	Low	Promote clean production and recycling, and regularly publish sustainability reports to let stakeholders understand the Company's energy conservation and carbon reduction efforts
	Policy and regulations	Renewable energy regulations/carbon fee shock	High	Sign electricity procurement agreements and purchase renewable energy certificates supplemented by Climate Blueprint target achievement in phases
		Increased greenhouse gas emission costs	Low	
	Technology	Increased new technologies investment costs	Medium	Actively promote various energy saving and carbon reduction programs
	Market	Market uncertainty	Low	Develop more energy-efficient and environmentally friendly products
Type	Climate opportunity	Description of potential financial impacts	Impact level	Coping Strategies/Cases
Resource efficiency	Promote cleaner production	Reduce water/power consumption and lower operating costs	Medium	Continue to promote various water/power conservation measures
	Water resource management	Increase water utilization rate and reduce water consumption	Low	Improve factory process wastewater recovery rate
Energy	Adopt new/low carbon technologies	Reduce operating costs	Medium	Accelerate the design and development of crystal growth thermal field
Market	Policy reward	Receive government grants, reduce capital expenditures	Low	Evaluation policy grant programs
	Carbon information disclosure	International Organization Initiatives	Low	Transparent carbon information disclosure to enhance the Company's image
Resilience	Production process	Strengthen basic measures, build sustainable operation capabilities and take advantage of high-efficiency materials to reduce costs	Slight	Evaluate the use of high-efficiency raw materials and reduce resource usage
Products and services	Develop new products or services via R&D and innovation	Research and develop low power and energy consumption products to meet customer demands	Medium	Continue to invest in R&D resources to develop energy-conservation products





Information Security

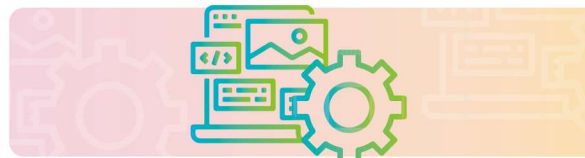
Many well-known companies worldwide and in Taiwan have experienced virus extortion incidents that resulted in significant losses in recent years. Therefore, companies have strengthened their information security operations without delay. GlobalWafers has continued to optimize its information security management system and enhance its information security defense capabilities in order to ensure effective information security practices as well as reduce the risk 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.



Information System Security Management

- Install endpoint protection software on servers and personal computers or laptops, and automatically update virus definitions or signatures.
- Construct email security gateway equipped with information security modules such as spam filtering, malicious file detection, and phishing email detection in order to enhance email attack protection.
- Important systems and databases are regularly backed up and stored off-site to ensure data availability.
- The information system vulnerability scanning is conducted periodically, and the holes in the loop of the system are fixed.
- The computer operating systems or servers are updated for securities based on the cyber risks.
- 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.



Information System Access Control

- Strictly control the application system and file access setting permissions to ensure information confidentiality.
- Formulate and implement account/password complexity principles, and update passwords regularly to ensure the validity of identity authentication.
- For employees who have resigned and changed departments, the information department shall adjust the permissions according to documents to ensure real-time and correct data permission & authorization.
- The Company has established the management procedures for non-employees (suppliers and contractors) to apply for accounts and access the systems. Once the application is approved, access will be granted for them to enter the system, and the handling status is recorded.
- No personal terminal device is permitted to be connected with any external storage medium.
- Personal computers are prohibited from connecting to the Company's network and resources, and the device authentication management mechanism is established.



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 colleagues to remain alert for the emails received 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 notification letter to the IT personnel for computer virus removal.
- The remote connection to the internal network when the employees are out of the office is limited to these compliant with the cyber security controls. Only these employees who are required to perform the necessary tasks may connect to the Company via remote connection via an authorization, and the VPN security connection with multi-factor authentication must be applied.



Pandemic Infectious Disease

2021 was still ravaged by COVID-19. GlobalWafers has strengthened the epidemic prevention measures in the factory area at the first instance to ensure the health and safety of all employees and stabilize the normal wafer production chain operations. The various departments have joined forces to formulate epidemic prevention strategies for the factory area, executed comprehensive epidemic prevention actions, complied with the government's prevention measures, inventories epidemic prevention resources, and regularly adjusted anti-epidemic actions according to the global epidemic status to ensure health and safety of the workplace.

We took a multi-pronged approach regarding epidemic prevention and employee care for the factory. In addition to executing the high-standard corporate epidemic prevention mechanism to ensure uninterrupted production line operations, we have continued to practice multiple care measures to ensure the safety of all employees, exert a positive influence on the enterprise, and join forces with everyone to fight the epidemic.

- **Employee care:** When the local epidemic broke out in May 2021, GlobalWafers immediately took epidemic prevention as its top priority and purchased the "statutory infectious disease health insurance" for its employees. The scope of protection includes statutory infectious disease coverage, statutory infectious disease inpatient medical coverage, and statutory infectious disease intensive care unit hospitalization medical coverage to maintain the safety and health of every colleague.
- **Epidemic prevention information:** To enable employees to grasp the real-time epidemic prevention information correctly, the Health Management Center has collected the latest epidemic information at home and abroad periodically and made rolling epidemic prevention measure adjustments in the factory to make real-time announcements according to the COVID-19 status so employees can quickly receive the correct epidemic prevention information.
- **Health monitoring:** To reduce employee exposure risks, GlobalWafers has set up infrared thermometers at the entrance of each factory area and implemented entry control for risk groups such as people with fever symptoms and suspected exposure history. The goal is to implement employee epidemic prevention and entry control fully.
- **Visitor management:** Use electronic bulletins to educate supply chain manufacturers about COVID-19 prevention measures when entering the plants, fully require visitors and contractors to apply for entry into the plants, adjust the scope of activities in the factory to a limited extent depending on the epidemic prevention level, and require everyone to wearing masks throughout the process to protect the safety of employees.
- **Epidemic prevention in the plants:** To prevent the infection risks due to crowd gathering, office workers have taken several contingency measures such as: crisscross seating, cabin separation, traffic flow diversion, and working from home to minimize crowd gathering and reduce the frequency of employee contact. (Note: cabin separation, home office, etc., use remote systems to maintain smooth work.)

- **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, adjusted the frequency of environmental disinfection and supplied alcohol disinfectant in public spaces, increased internal ventilation, encouraged staff to open windows in confined spaces, affixed adhesive films on top of frequently used buttons, added partitions in restaurants, posted correct hand washing instructions in each restroom, and conducted a regular inventory to ensure that the Company has sufficient anti-epidemic materials.
- **Physical and mental care:** COVID-19 has created an atmosphere of anxiety and tension in society. In 2021, GlobalWafers introduced the Employee Assistance Program Consortium (EAPC) to provide each employee with 2 free one-to-one consultation services every year. GlobalWafers has also regularly passed out psychological growth promotion materials to help employees resolve negative emotions and stress.



COVID-19 防疫訊息

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確診數	死亡數	致死率(CFR)
全球 179,541,481	3,890,437	2.16%