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2022 ASECL ESG Report

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About This Report

Report Overview and Issuance Frequency

This is the first public release of ADVANCED SEMICONDUCTOR ENGINEERING INC. CHUNG-LI BRANCH's (ASECL) sustainability report. ASECL provides integrated IC assembly, testing, and turnkey services. In the future, we will continue to provide responsible services to our customers and regularly publish annual reports on our outstanding performance across the economy, environment, and society (people/group). Presented in the sustainability report and made public are the operating results of the ASECL, including the financial performance and implementation of the corporate vision of sustainable management with actions. Released in 2023, this report is expected to be published on an annual basis. Since this is the first issue of ASECL's sustainability report, this report does not change any information provided in previous reports.

Reporting Boundaries and Coverage

The disclosure period of this report is from January 1, 2022, to December 31, 2022, and the report boundary is the Chung-Li Branch of ADVANCED SEMICONDUCTOR ENGINEERING INC. ("ASECL"). The economic, environmental and social (people/group) oriented actions and various performance data are mainly based on ASECL. During the reporting period, there were no material changes in the organizational size, structure, ownership, and supply chains.

For more detailed information, please refer to the ASE Technology Holding Co., Ltd. [2022 Annual Report](#).

Compilation Guideline

This report is prepared and compiled according to the GRI 2021 Sustainability Reporting Standards. This report also follows the core option of the GRI Standards and contains the GRI Content Index. Among them, GRI 303 and GRI 403 of the specific topic standard are compared with the 2018 edition, GRI 207 is compared with the 2019 edition, and GRI 306 is compared with the 2020 edition. The GRI content index is provided in the appendix.

ESG Responsible departments and methods of quality management

To strengthen the integrity and credibility of the sustainability reports of the ASECL, the ESG Task Force follows the "Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies" to establish a process for compiling sustainability reports and implementing internal or external audits. The procedure of verification shall be included in the company's "Internal Management Process", and this procedure shall be reported, reviewed, and approved for the suitability of the system.



Compilation

ESG Task Force

The EHS Division is responsible for the collective overall planning. The data disclosed in the report Data, Strategic Objectives, and Performance Indicators are provided by different responsible units, and the ESG Task Force compiles, corrects and revises such data.



Internal Review

Relevant responsible departments and executives

Each unit shall confirm the wholeness and accuracy of the complete report, and the highest unit officers will conduct the final approvals.



External Assurance

TUV NORD Taiwan Co., Ltd.

To further support the accuracy and credibility of this Report:

- ◆ Chung-Li Branch has designated a third-party independent verification institution, TUV NORD Taiwan Co., Ltd., to provide an external guarantee for the information disclosed in the report. TUV introduced the AA1000AS v3 Type 1 and the Moderate Assurance application as the verification basis to ensure that the content of this report complies with the GRI Guidelines and the AA1000AP (2018) accountability principles.
- ◆ The Financial Statement has been disclosed in the financial report of the ASE Holding Group. Please refer to the "[ASE Technology Holding Co., Ltd.' Financial Report](#)" for more information



Finalization

Corporate Sustainability Committee

Finally, the report is submitted to the Corporate Sustainability Committee for review and finalization.

Contact Information

To fulfil the responsibility of corporate information disclosure, this report was also published on our official website for easy access. If you have any suggestions or queries about the "ASECL 2022 Sustainability Report", please contact us as follows:

ADVANCED SEMICONDUCTOR ENGINEERING INC. CHUNG-LI BRANCH

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Letter from the General Manager

In 2022, with the gradual lifting of the various COVID-19 prevention restrictions, the world entered the post-epidemic era, which not only changed the global economic development and human lifestyles but our daily lives are now also more strongly connected to the semiconductor industry. In the year 2022, the globe was in a critical stage of economic recovery and digital transformation. In recent years, the ASECL has been committed to improving core technologies, including industrial artificial intelligence and large data analysis. Moreover, to improve production capacity and efficiency, we built the new second park, with the ground-breaking ceremony being held in July 2022. In addition to improving product quality and efficiency, we expect to use the core capability to help the world get through the post-epidemic era. On the other hand, due to changes in the global environment in recent years, we have a deep realization regarding the challenges that climate and social-related risks will bring to corporate sustainable management.

Low-carbon sustainability is the ultimate goal that the entire world is pursuing. Smart manufacturing is core to strengthening enterprises' competitiveness. We adopt diversified but flexible sustainable strategies, hoping to achieve a balance between the environment and the economy. We comply with the Sustainable Development Goals formulated by ASE Technology Holding Co., Ltd., the parent company, and have won the highest score among the entire industries of the Dow Jones Sustainability World Index (DJSI) for 7 consecutive years, as well as the "Climate Change" leadership level of the Carbon Disclosure Project (CDP) for 6 consecutive years. In terms of sustainable development management and goals, the Corporate Sustainability Committee of the ASECL is primarily responsible for planning and implementing sustainable goals, making a blueprint plan

of corporate social responsibility, and implementing sustainable DNA into daily operations so that the ASECL can take the ESG performance into account while pursuing sales performance growth. In terms of carbon emission management, we continue to try to reduce the greenhouse gas emissions caused by business operations. Furthermore, by promoting energy-saving measures and purchasing green power and renewable energy, the GHG intensity has decreased by over 8% compared with that of the base year of 2015. Moreover, we have responded to the Science Based Targets initiative (SBTi) and are committed to reducing the GHG emissions in Scope 1 and Scope 2 by 35% by 2030, and to achieving Net-Zero Emissions of the office and production sites by 2050. In the future, we'll set more rigorous carbon reduction goals and be devoted to the achievement of global Net Zero Emissions.

We have also continued to promote a circular economy with four main themes, "High Value, Low Carbon, Waste Reduction, and Wisdom." By improving material circulation, resource efficiency will be maximized and we'll be able to manage consumed resources as well. Firstly, regarding water resource consumption, to improve the circulation of water resources and respond to the issue of global water resource shortage, we introduced the ISO 46001 Water efficiency management systems, adopting the water-saving method in the manufacturing process and improving water recycling technology to increase the recycling of water resources and the reduction of water consumption as much as possible. The overall water intake density has therefore decreased by 9.4% compared with that of 2021. Secondly, regarding waste management, we mainly follow a circular economy and aim to achieve the goal of environmental sustainability. Through continuous waste recycling and reduction, the intensity of hazardous waste

has dropped by 11.4% compared with that of 2021. Meanwhile, the recovery rate of non-hazardous waste has reached 100% zero waste in landfills since 2020. In the future, we hope to spread the circular economy philosophy to upstream and downstream customers and suppliers and expect to build a semiconductor industry chain that will reach full material circulation and zero wastage. Besides, we received the Platinum Grade full score award from the Responsible Business Alliance (RBA) in 2022, which exactly represents the excellent performance of the ASE Group in environmental protection, labor rights, and ethics aspects.

The year 2022 was the first year that the ASECL published a Sustainability Report. We fully recognize the infinite possibilities of sustainable development, which is also a centennial business that benefits the company itself as well as others. We'll continue to improve and implement corporate sustainable management, take actual actions to fulfill the earth's citizen responsibilities and make a contribution to the environment, society (people/group), and the economy while creating a win-win situation for the enterprise as well. We look forward to moving forward, hand in hand, with all the stakeholders toward a sustainable future.

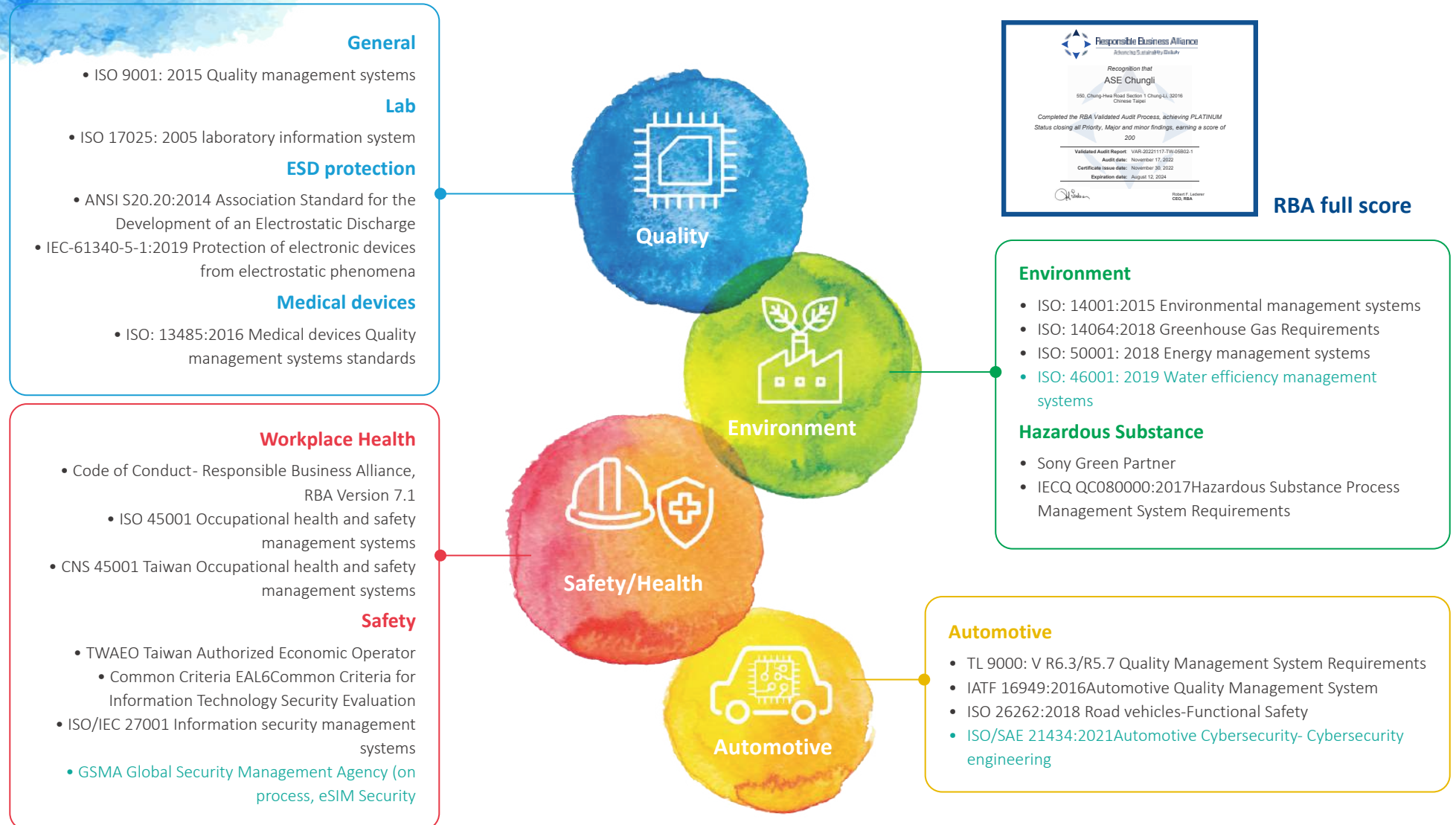


T.S. Chen
 General Manager



Sustainable Certification

The ASECL has obtained certifications including Quality, Information Security, and Environment, Society (people/group) to ensure that all the aspects of control measures and execution processes are in line with international standards. *Note: Newly received certifications in 2022.*



SDGs x ESG Action Performance



Environmental Protection



- ◆ The ISO 46001 Water Efficiency Management System has been introduced and the water recovery rate in the manufacturing process has reached 84%. Regarding social co-prosperity, ASECL has adopted the Huangqi River and also sponsored river improvement and environmental education.
- ◆ ASECL has introduced energy-saving measures. By replacing power-saving equipment and purchasing renewable energy, we expect to reduce energy consumption and achieve the goal of environmental protection. Regarding the reduction of energy consumption, the intensity of non-green power of 2021 was reduced by 24.3% compared with that of 2015. ASECL replaced old lamps with 727 high-efficiency LED bulbs. The branch has also introduced renewable energy and purchased renewable energy certificates for use in the plant; in 2022, ASECL purchased 5,249,772KWH of green power, which was more than 5,201,280KWH, of the purchase amount stipulated in the contract. Renewable energy certificates purchased amounted to 5,249,772KWH, which was more than 5,201,280KWH of the purchase amount stipulated in the contract.
- ◆ ASECL is committed to fulfilling manufacturer responsibility. Regarding raw material procurement, the impact on the environment and human rights is considered so the company can avoid having a negative impact on the environment. In terms of procurement, the key raw materials and chemicals used by ASE Group fully comply with the specifications and requirements of RoHS and REACH. Furthermore, it conducts conflict minerals investigations every year, the records of which are audited by a third-party unit.
- ◆ ASECL abides by the policy of ASE Technology Holding Co., Ltd., the parent company, in announcing the absolute base target of the SBTi. By the year 2030, the greenhouse gas emissions of scope 1+2 will be reduced by 35% compared with that of 2016. In 2022, by promoting energy-saving measures and purchasing green power and renewable energy, the intensity of greenhouse gas emissions was reduced by more than 15% comparing with the base year 2015.
- ◆ We cooperate with suppliers and recycle wafer packaging materials.
- ◆ Waste stamping glue is used to make floor tiles for local elementary schools.



Social Responsibility



- ◆ ASECL is committed to fulfilling corporate social responsibility and growing with the local community. It provides scholarships and grants bursaries to children from low-income families to encourage them to learn, and regularly donates to local communities, social welfare organizations, and schools. In 2022, a total of NT\$4,558,157 was donated.
- ◆ ASECL has established an infirmary providing 24 hours medical services, provides a physician and full-time nurse to provide labor health services, and has an occupational medicine specialist under contract. To prevent and regularly inspect the health risks of employees, ASECL also conducts annual physical exams for all employees. In 2022, 3,484 employees were eligible and 3,193 employees were examined; an examination rate of 91.65%. ASECL has invested a total of NT\$1,360,190 in employee physicals.
- ◆ ASECL has cooperated with National Taiwan University, National Cheng Kung University, National Central University, and Chung Yuan University in an Industry-Academy Cooperation Project. Though the project, teachers and students combine theory with factory practice so that school education meets industry needs more. It has invested a total of NT\$5,090,000 in this project.
- ◆ Regarding gender equality, ASECL supports the reproductive rights of employees and protects employees' right to unpaid parental leave. Employees of ASECL who have worked for six months can apply for unpaid parental leave before their child reaches the age of three. When on unpaid parental leave they continue to receive social insurance. From 2020 to 2022, the retention rate of employees in ASECL who took unpaid parental leave was over 90%.
- ◆ Employees are the most important asset of ASE Group. ASECL is committed to providing a safe, healthy, and high-quality working environment. In 2022, in response to the SDG 8 "Decent Work and Economic Growth", we created 2,570 job opportunities in the Taoyuan area and has employed 75 people with disabilities.
- ◆ ASECL complies with the Code of Conduct of the Responsible Business Alliance (RBA), abiding by zero charge, zero discrimination policies in the recruitment of foreign employees. Furthermore, the RBA VAP audit is conducted every two years. In 2022, the company obtained the RBA platinum certificate.



Corporate Governance



- ◆ To implement integrity management in the cooperate culture of ASE Group and track the results, ASECL conducts corruption-related risk assessments annually. In 2022, 30 units of the branch underwent corruption-related risk assessments. There is also a whistleblower reporting mechanism to generate corruption reports quarterly. In 2022, no corruption was reported. In addition, there are educational trainings and courses on integrity management for employees. In 2022, communication and training participation of integrity management of employees of ASECL both reached 100%.
- ◆ The ISO 27001 Information Security Management System has been introduced and the information security management system is improved regularly to ensure the security of customers' information assets.



SPECIAL ISSUE

Excellent Companies that Practice ESG: Received the Gold Medal of the Excellent Enterprise Awards in Taoyuan City: "Gender Equality Award" and "Champion of the Earth Award"

ASECL (The "ASECL") received the "Gender Equality Award" and "Champions of the Earth Award" in the Excellent Enterprise Awards in Taoyuan City 2022. It is such an honor to receive these awards, which not only positively recognize ASECL's efforts to promote gender equality in the workplace and demonstrating that ASE Group is an enterprise that implements gender-friendly measures, but also shows that ASECL had excellence performance in implementing environmentally friendly measures, such as the circular economy, energy saving, carbon reduction, and waste processing. These awards are not only a positive recognition of the above-mentioned actions but also serve as a benchmark for other players in the industry.

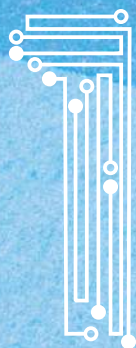
Since its establishment in 1999, ASECL has been committed to providing holistic semiconductor manufacturing and packaging services through its excellent manufacturing technology as well

as comprehensive innovation ability. It has been trusted and supported by customers ever since and has had a good reputation in the industry. Faced with rapidly changing market trends, it still maintains steady growth and makes great efforts to protect the environment, conserve energy, and reduce carbon emissions. In terms of business operations, ASECL responds to the sustainable development goals of SDG 12 Responsible Consumption and Production. It adopts energy-saving methods in the chip packaging process to reduce material waste and energy consumption. By reducing material waste, ASECL not only operates in an environmentally friendly way but also reduces operating costs and increases profits. In terms of environmental protection planning, the ISO 50001 Energy Management System has been introduced to effectively control energy. It also purchases renewable energy certificates to reduce carbon emissions. In addition, many buildings in the branch have obtained green building certification, some of which are diamond- and gold-rated green buildings, evidencing the company's efforts to create a friendly environment.



CHUNG-LI BRANCH also provides a variety of employee-friendly facilities. In addition to restaurants, convenience stores, and recreational facilities, ASECL also takes humanity and gender equality into account to provide good quality childcare services and private breastfeeding rooms, enabling parents and working women to entrust their children at the workplace. We also actively respond to the sustainable development goals of SDG 3 Good Health and Wellbeing and pay particular attention to the physical and mental health of the employees. Physical exams are arranged regularly, and a physician and nurses serve in the branch to provide outpatient care, promote infectious disease prevention and control, flu vaccinations, and various health service consultations.

The Excellent Enterprise Awards in Taoyuan City were formerly known as the Outstanding Enterprise Excellence Award, and has 16 years of history, becoming a highlight of local industries and enterprises that develop or establish factories in Taoyuan. The awards are therefore important benchmarks for recognizing model enterprises. In 2022, the six award categories were the "Smart Star Award", "Champions of the Earth Award", "Caring Enterprise Award", "Inclusive Champion Award", "Best Newcomer Award", and the special "Gender Equality Award". The candidates were evaluated with six to seven indicators and graded according to the formulated ratios. ASECL received the "Champions of the Earth Award" and the "Gender Equality Award" in 2022, clearly demonstrating the efforts and achievements made in sustainable development. In the future, ASECL will continue to fulfill its corporate social responsibility, making contributions to society (people and group), the environment, and the economy.



About us

About us

New Second Park

Smart factories

External participation

About Us

Established in 1984, Advanced Semiconductor Engineering Inc. was founded by Mr. Jason C.S. Chang and Mr. Richard H.P. Chang, based on the spirit of serving the country through industry, in cooperation with the government's high-tech development policies, while using cash and specialized technology to raise funds. The operating headquarters are the ASE Kaohsiung Branch, and subsidiary ASECL was founded in 1999. Its main business projects include the manufacturing and combination of various types of integrated circuit processing, testing, and sales. Its integrated circuits have a wide range of applications, including the fields of automotive, industrial, memory, communication, consumer products, computers, and more.

Since 2018, ASE has been a subsidiary of ASE Technology Holding Co., Ltd. (referred to as "ASEH"). Please refer to the ASE Technology Holding Co., Ltd. 2022 Annual Report for the shareholder structure and list of major shareholders for fundraising.

Business Scope

ASECL, a professional IC assembly and testing manufacturer in Taiwan, continuously promotes the company's sustainable development with excellent manufacturing and innovation capabilities under its elite management team. To meet the expectations of all stakeholders, all employees of ASE rigorously adhere to the principles of integrity and pragmatism to jointly achieve

organizational goals, and have successively obtained international quality system verification, demonstrating excellent quality. It is currently a leading manufacturer in the national assembly industry.

In addition to diving deeply into the field of IC assembly testing, ASECL has also entered the advanced assembly field. In response to the demand for new product development and future business capacity expansion, our company has expanded its scale and technology, and maintained a leading position in manufacturing technology through R&D. In response to business expansion demands, it also actively constructed a complete international marketing channel and operational management, strengthened the professional training of personnel to improve product technical support and after-sales service levels, and achieved the goal of continuously increasing the market share of the company's products.

In the future, ASECL will be committed to providing customers with leading diversified assembly and testing services, as well as SiP assembly technology solutions, connecting the supply chain, and working closely with customers to actively develop component products that integrate optimal performance and power consumption, endowing people's lives with wisdom, energy conservation, and sustainable new value.



Market Distribution of ASECL Products



Basic Information about ASECL

Date of establishment : July 05, 1999

Address : No. 550, Sec. 1, Zhonghua Rd., Zhongli Dist., Taoyuan City, Taiwan

Number of employees : 12,205

Number of manufacturing plants : 4

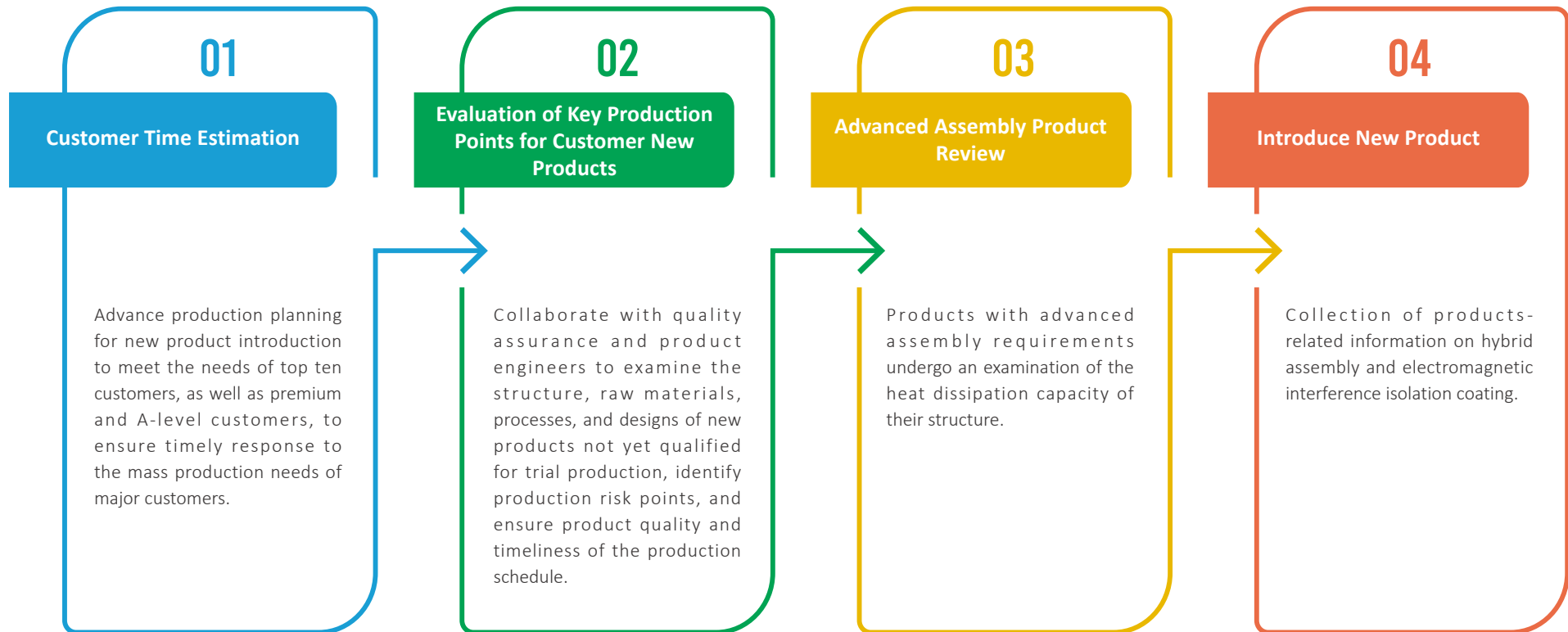
Plant area : 676727 ft²

Key products : Manufacturing, assembly, processing, testing, and sales of various types of integrated circuits

R&D and Innovation

Refined Product Production and Project Opening Process

To refine the process to meet customer needs and maintain the profitability of our factory, ASECL provides real-time product process services to major customers through precise evaluations of new product development. In addition, through a dual evaluation mechanism of customer demand and market research, the cost and profit results of product engineering are estimated to determine whether to introduce or produce the product.



Product and Process Innovation

To provide more energy-efficient and resource-efficient products and services, ASECL focuses on innovative products and processes, such as reducing materials, energy saving and carbon reduction, improving capacity, and automation. Through the innovation of the following projects, ASECL can sustainably produce and profit from its products while reducing the impact on the environment. The following table explains the innovation projects and their benefits for each product and process:

Innovation orientation	Explanation and Benefits
Save materials	ASECL has conducted three projects related to saving material and utilization. By reducing the material utilization rate and saving costs, the manufacturing process is more environmentally friendly with greater economic benefits. Two of these projects aim to reduce material waste by 30-60% by changing the assembly socket design. Another project is designed to change the thickness of the chip substrate, reducing substrate material usage by 50% from 100 microns to 50 microns.
Energy savings and carbon emissions reduction	In terms of product process, ASECL has conducted three energy-saving and carbon reduction projects, aiming to achieve energy-saving and carbon-reduction goals by reducing process temperature, while improving process quality and increasing machine output efficiency. The first project achieves energy-saving by reducing the curing temperature. The second project aims to reduce the temperature of the sputtering process and energy consumption by designing a cooling fixture. The third project utilizes the assembly technology of the "Solder Ball", and reduces the line changing time by fixing the temperature of the heat treatment during the manufacturing process, improving the production efficiency of the machine. In addition, due to the temperature of fixed assembly equipment, energy consumption is reduced, achieving the goal of energy conservation and carbon reduction.
Increase in production capacity	Overall, the capacity improvement project improves production efficiency through the following methods: <ol style="list-style-type: none"> 1. Through the new fixture design, the cutting width is reduced, the utilization rate of the layout is increased, and production efficiency is improved. 2. The reuse of new fixtures reduces new fixtures purchasing costs and production costs. 3. By sharing the furnace temperature, the waiting time during assembly production is reduced, and the production efficiency of the machine is improved.
Automation	By establishing automation projects and collaborating with device manufacturers to develop new programs and functions, we aim to address the placement of wafers of different sizes. Through this set of functions, the risk of misjudgment of wafer placement during manual operation is eliminated, therefore improving production efficiency of the machine.

With a high level of professional knowledge and R&D spirit, ASECL is committed to providing innovation momentum to all customers, assisting them in expanding their business, and working closely with customers. It is committed to meeting customer needs, and assisting them in improving R&D and production processes, while balancing active utilization of innovative models of collaboration with customers and industry partners to develop materials suitable for specific requirements, improving production efficiency, and assisting partners in reducing the impact of their products on the environment. A total of 10 new patents were obtained in Taiwan in 2022, bringing the total number of approved patents to 101.

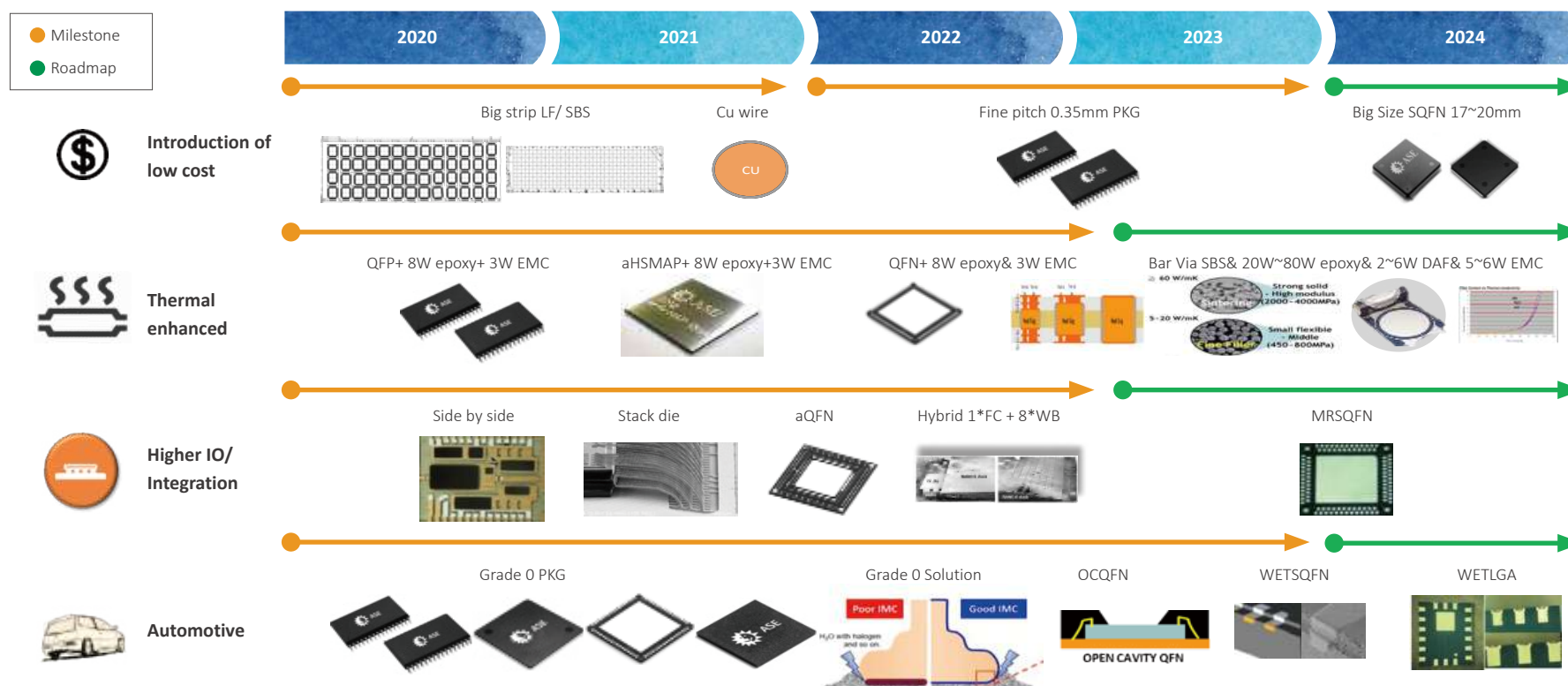
Patent acquisition status of ASECL in the past three years

Countries	Number of new patents			Accumulated number of valid patents
	2020	2021	2022	
Taiwan	11	19	10	101
United States	33	26	35	167
China	12	11	14	101
Total	56	56	59	369

Future product development trends

ASECL continuously optimizes production technology by reducing raw material consumption, improving production efficiency, and enhancing product performance and application. In terms of future product trends, the specific directions are as follows:

Products/Technologies	Features	Effects	Applications
High pin-count and large-sized QFN products	Equip smaller products with more functions	Reduce raw material consumption and costs	Communication/Bluetooth/Wireless and other devices
High-heat dissipation adhesive and assembly materials	Applied to products with high heat-dissipation requirements	Save energy and electricity, reduce carbon emissions	Power devices, power supplies, servers
Product application of MRQFN (multi-row QFN)	The same product size can provide more functional outputs through internal pin design	Small size, low cost, and high product yield	Communication/Bluetooth/Wireless and other devices
WETLGA new product design	It can improve the defect detection rate of Automatic Optical Inspection (AOI) during the SMT stage, avoiding subsequent material waste.	Reduces waste of raw materials and improves product quality	Car audio and video equipment



New Second Park

Considering future market demand for high-order assembly capacity and the comprehensive semiconductor downstream industry chain in Taoyuan which can reduce material transportation costs as assembly and testing factories, IC carrier manufacturers, chemical suppliers, and process equipment manufacturers are all located in Taoyuan, in 2022, ASE announced the establishment of a new second park in the Chung-Li Industrial Zone, with an investment of NT\$10 billion for the factory building and NT\$20 billion to expand advanced assembly capacity to strengthen investment in North Taiwan. On July 15 of the same year, the groundbreaking ceremony for the Chung-Li Branch new second park was held. Construction is planned to be completed by Q3 2024. After completion of the second park, the factory property line in the area will focus on high-end assembly markets such as automotive chips, cloud computing, 5G communication, and the Internet of Things (IoT), and is expected to increase the production capacity of ASECL by 30%, and monthly output value of ASE by US\$60 million when at maximum capacity.

During construction, to provide customers with better assembly and testing services while reducing the impact on the environment, ASECL aims to build the new second park factory with automated facilities, as smart building, gold-grade green building. Automated facilities will replace original manual operation and production through intelligent manufacturing, and use automated machines to handle processes from feeding to shipping. AI technology will replace manual methods for product inspection, improving accuracy and efficiency. The new construction is also being built to the standard of a "gold-grade green building", and will control and reduce energy and carbon emissions through a smart building setup. Specific management measures are shown in the table below:

Factory Target	Management orientation	Description
Gold-grade green building & Smart building	Water resources	<ol style="list-style-type: none"> 1. It is expected to set up (1) a process recovery water system with a treatment capacity of up to 5000 CMD (tons/day), and (2) a reclaimed water recovery system with a recovery capacity of up to 1,000 CMD (tons/day), and a rainwater storage tank that can collect 580m³ of rainwater are planned. 2. A two-stage water-saving toilet with a gold-grade water-saving seal and an automatic sensing faucet in the factory building will be installed.
	Energy	<ol style="list-style-type: none"> 1. Green electricity will be purchased and used in the factory building. 2. In terms of lighting equipment, LED high-efficiency lamps are preferred. For lighting, downlights and lamps with external diffusers, both direct and open lighting will be used to improve lamp efficiency. 3. Energy-saving models for domestic sewage blowers will be adopted (Roots type>maglev type). 4. In terms of energy management, digital electricity and water meters will be installed in public spaces, and continuously recorded in the energy management system.
	Building design	<ol style="list-style-type: none"> 1. The architectural orientation adopts a north-south design, and the opening of the building shell faces north and is insulated with a glass door on the first floor. The northern staircase goes from the 2nd to 9th floors, and walls are placed in a certain way to reduce window opening. 2. The walls in the living space and staircase in the factory and office areas are decorated with simple paint, and over 75% of the materials are green building materials. 3. The reinforced concrete construction uses calamine powder instead of cement to reduce the amount of carbon dioxide generated during the construction process. High-strength concrete is also used to reduce total usage. 4. Bicycle parking lots, dedicated parking lots for electric vehicles or motorcycles, and power stations will be placed within the factory building.
	Environmental greening	A total of 20 trees (Buddhist Pine) and a 600m ² shrub cluster will be planted in the grounds of the new second park.
	Plant Safety	When fire, earthquake, flood, gas supply and other alarm systems sound, the corresponding factory management system can be shut down automatically.

After the new second park is completed, production capacity will be expanded and revenue of ASECL increased, while also reducing the negative impact on the environment. In terms of the impact on society, ASECL has also fulfilled its corporate social responsibility by donating 25 years of management and maintenance costs to the surrounding Chung-Li Fuxing Park, and renovating the sidewalks and green spaces around the new second park of Chung-Li Industrial Park. Once the new construction of Chung-Li Branch is operational, it will also create 2,000 job opportunities for people in the local Taoyuan area.

Smart Factories

Since 2013, ASECL has been promoting the systematization of workflows and introducing the smart factories model to reduce personnel load. To achieve and establish an automated smart factory, planning of processes, power lines, and construction of software and hardware equipment are essential. In terms of process and line planning, the initial factory design requires comprehensive planning. In ASECL, all guidelines related to factory planning, including the allocation of personnel, machines, and materials, are clearly defined in the specifications. In addition to considering the smoothness of the process and production line, it is also necessary to consider the effective use of space to achieve the optimal floor efficiency of the factory; the designers first completed a basic factory building architecture that meets personnel operation and logistics needs through on-site investigation, group-based design concepts, and integration with the production department. They collaborated with the automation team to optimize the plans into an automated factory building with production flexibility depending on the type of automation in each process and the automation series model between processes for greater efficiency and maximization of equipment output value.

In terms of software and hardware equipment construction, firstly, to establish the parameters required for production and cloud architecture used for equipment, ASECL established a Computer Integrated Manufacturing (CIM) team, which integrates and connects information flow and logistics, and constructed an automated factory through big data analysis. Subsequently, starting in 2019, ASECL began to automate physical logistics and gradually matured and formed automation equipment through a large volume of acquisitions and labor.

Automated import process: Replacing manual operations with machine equipment.



Before automation: Operators manually operated materials

After automation: Robotic arms and the storage system replaces human operations with machinery and equipment.

To this day, the automated logistics equipment of ASECL has been introduced into the automated station, and through the integration of software and hardware equipment, steps that require manual operation by personnel have been fully automated, thereby reducing human error and material waiting times. In terms of material delivery, materials can be delivered to the factory through the combination of automated storage systems, robotic arms, RGV, and automated batching systems. ASECL also expects to gradually complete the construction of automation equipment at its main work stations in the coming years.



External Participation

External initiatives

International initiatives supported by ASECL



ESG

1. Supporting the 17 SDGs of the United Nations, advocating for the integration of sustainability indicators across the three areas of the economy, environment, and society (human and human rights), and working together with the global community towards sustainability.
 2. Support the United Nations Global Compact, advocating for organizational development and sustainable governance from the perspectives of human rights, labor, environment, and anti-corruption.
 3. Served as a member of the Environmental Protection and Safety Committee Sealing and Testing Group at the TSIA, jointly making decisions and drafting matters related to environmental safety, hygiene, and ESG in the domestic assembly and testing industry.
- Adhere to the three major principles of "Protect", "Respect", and "Remedy" of the Universal Declaration of Human Rights, the UNGPs, and the international human rights norms of the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, adhere to national laws and regulations of the business location of ASEH (see [Sunrise Investment Holding's ASEH Human Rights Policy](#)), and ensure the implementation of human rights protection by joining the Responsible Business Alliance (RBA).



Environmental Factors

1. Collaborate with the parent company, ASEH, to conduct TCFD, assisting investors and decision-makers in understanding the organization's climate-related risks, opportunities, and financial impact to help the organization overcome transformation challenges.
2. Cooperate with the parent company, ASEH, to effectively assist the company in measuring and improving its carbon management system through the Carbon Disclosure Project (CDP).



Social Factors
(people and group)

1. Adhere to the International Labour Organization (ILO) guidelines, continuously improve the working and living conditions of employees and safeguard their due rights.
2. According to the Responsible Business Alliance (RBA), the company promises to provide a work environment that ensures the human rights and ethics of workers, the environment and health and safety so that all workers are treated with respect.
3. As a member of the Responsible Minerals Initiative (RMI), ASEH refuses to use conflict minerals.



Governance Factors

1. The United Nations Convention against Corruption (UNCAC) aims to establish a sound governance system for the prevention of corruption.
2. The Principles for Responsible Investment (PRI) of the United Nations assist investors in gaining clear access to ESG-targeted information and incorporating it into investment considerations.
3. Company Manual 303A.10 Code of Business Conduct and Ethics) NYSE Listed Company Manual 303A10 Code of Business Conduct and Ethics
4. Require suppliers to adhere to the RBA Code of Conduct for their management system and professional ethics, while also requiring suppliers to comply with the laws and regulations of the country and region in which they operate, and consider the degree of supplier compliance as the basis for procurement decisions.

Participation in external associations and memberships

Public associations and advocacy organizations with important participation roles

Item	Name of Organization	Strategic significance	Position Held
1	Responsible Business Alliance (RBA)	Participation in this organization to comply with the common code of conduct in the global electronics industry and enhance business competitiveness	Member
2	Semiconductor Equipment and Materials International (SEMI)	Participation in this organization with the parent company, ASEH	Member
3	Taiwan Semiconductor Industry Association (TSIA)	By optimizing the utilization of resources among the same industry, the goals of reducing pollution emissions, waste management, and urging the government to revise or develop appropriate regulations can be achieved.	Group membership
4	Taoyuan City Industrial Association (TCIA)	Participation in regional industry unions and exchanging industry information; if the policies or laws and regulations undergo major changes (such as one fixed day off and one flexible rest day, the southbound policy, etc.), the enterprise can also be consulted through the TCIA to understand the direction of relevant policy amendments.	Member
5	IC Assembly Testing Personnel Supervisor Association	Participation in the Semiconductor Assembly and Testing Industry Human Resources Management Association, with a total of 23 assemblies and testing related enterprises from Taiwan. Quarterly communication on key indicators of human resources, regular social exchanges, and dynamic sharing of human resources topics and regulations every two months to help understand recruitment, salary and other developments.	Formerly served as President, Vice President, and Executive Secretary
6	High-tech Industry Salary Management Association	Participation in the Salary Management Association mainly based in the Hsinchu Science Park, with members including 57 companies in the semiconductor, information communication, green energy, and optoelectronics industries. Each industry leader serves as a standing committee member, exchanging various human resources topics and regulatory updates.	Member



Material topics

Stakeholder engagement

The process of identifying material topics

Analysis and ranking of material topics

Stakeholder Engagement

Based on the characteristics of our operating activities and industrial attributes, and referring to the seven major stakeholders identified by the parent company, ASEH, the Corporate Sustainability Committee of Chung-Li Branch has selected six key stakeholders, including (1) Employees, (2) Customers, (3) Suppliers/Contractors, (4) Government (5) Communities/non-profit organizations, (6) Media.



To comprehensively understand the issues that are of concern to stakeholders with actual or potential impact and confirm the degree of impact, our company has established a "[Stakeholder Zone](#)" on its official website, providing exclusive communication channels for stakeholders: codecompliance@aseglobal.com., and collect and respond to their concerns, while following national policy trends and various international standards (SASB industry standards, TCFD ¹), evaluation (CDP ²), and initiatives (SDGs ³, UNGC ⁴, RBA ⁵), focusing on 20 sustainable issues that are highly relevant to our company, covering economic, environmental, and social (people and group) aspects.

ASE is well aware that all stakeholders are very concerned about the company's operations and sustainable development. Therefore, a sustainability survey was conducted in 2022 to further understand the issues and needs of all stakeholders. We sent questionnaires related to company operations, commercial cooperation, and sustainable interaction, and received a total of 469 responses. When compiling the questionnaire, we differentiated scores into "0", "1", "3", and "4" based on the level of attention to ensure the most accurate results are obtained. These results help us identify the top few issues that stakeholders are most concerned about, and then explore them based on the company's development strategy, industry status, value chain practices, and expert recommendations. We confirm the impact of these issues on the economy, environment, population, and human rights one by one, and identify and rank the major themes of the year as the main axis of information disclosure in this report, providing stakeholder information to users for effective evaluation and decision-making.

1. Task Force on Climate-related Financial Disclosures (TCFD)

2. Carbon Disclosure Project (CDP)

3. Sustainable Development Goals (SDGs)

4. The United Nations Global Compact

5. The Responsible Business Alliance (RBA) Code of Conduct

Stakeholder engagement situation of ASECL

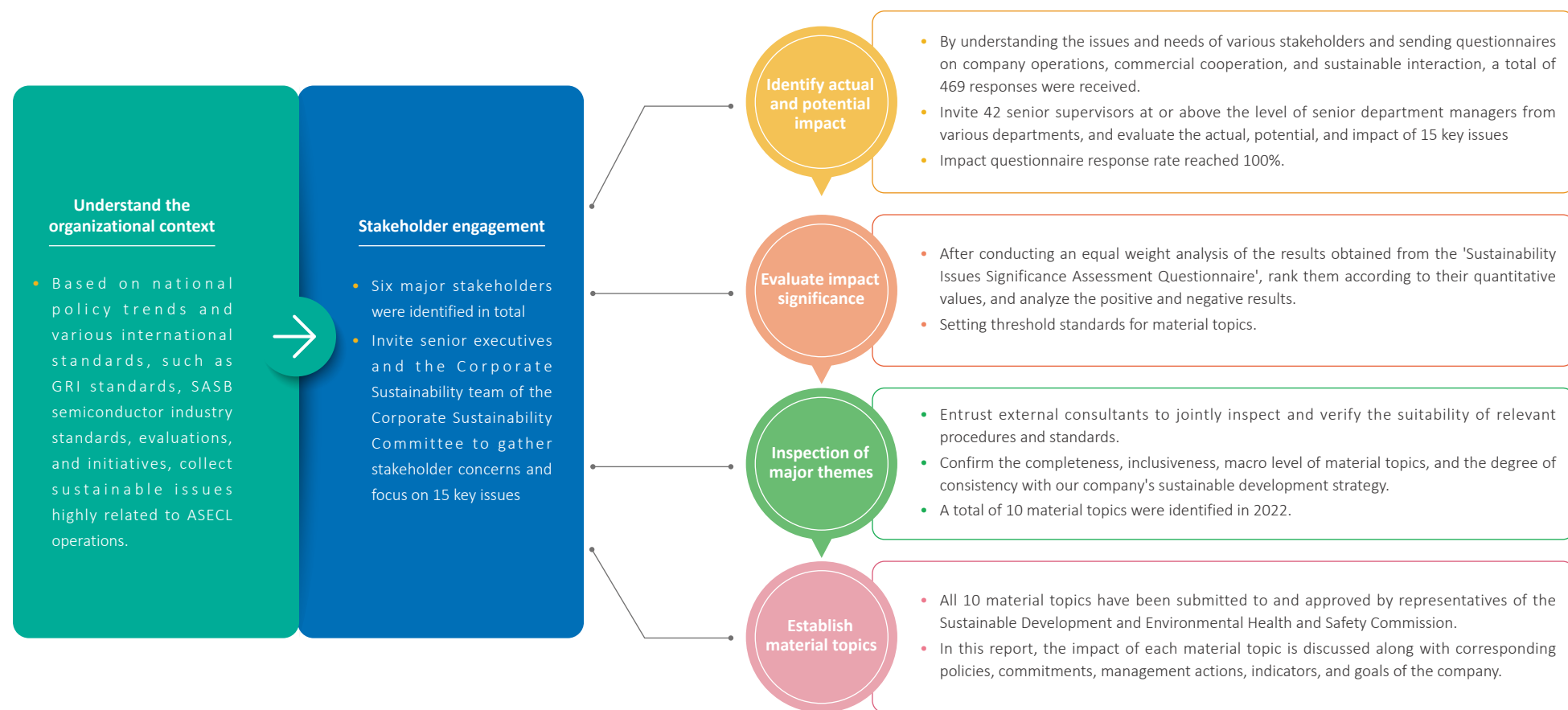
Stakeholders	Significance to ASECL	Engagement method	Communication frequency	Concerns	Management measures	Communication performance
Employees	Company assets	Factory Occupational Health and Safety Committee	Month	<ul style="list-style-type: none"> Occupational health and safety Talent recruitment and management Workplace inclusion Regulatory compliance Information security management 	<ul style="list-style-type: none"> Introduce the Occupational Health and Safety Management System to prevent occupational injuries and conduct disaster prevention drills. Provide competitive salary and benefits, promote employee engagement surveys, understand employees' needs and ideas, communicate with employees, and attract and retain talent. Develop an annual training course plan every year and share it internally to enhance employees' career development and contribute to business goals. Conduct human rights risk assessments and mitigation measures on issues such as privacy, personal information, child labor, foreign migrant workers, forced labor, discrimination, freedom of assembly, equality/equity, and establish an inclusive workplace. During the severe epidemic period, established remote office regulations to ensure employees' work efficiency and health, while maintaining network security and creating an efficient organizational team. 	<ul style="list-style-type: none"> Proactively promoting a culture of safety, environmental, and health proposals have improved the number of 47 cases and 0 major occupational injuries and diseases have occurred. Held 13 new employee care symposiums, five grassroots supervisor briefing sessions, and 12 foreign representative communication meetings. Employee satisfaction survey with a response rate of 100% and an average score of 77%. Employee engagement: The direct personnel response rate is 99.5%, with an average score of 84%. The response rate for indirect personnel is 99.3%, with an average score of 80%. The average number of training hours per colleague in 2022 was 26.87 hours. The average training hours for male colleagues was 29.22 hours, while the average training hours for female colleagues was 24.60 hours. Zero appeals and zero cases reported.
		Clinical outpatient and health education promotion	Irregular			
		Labor management meetings	Quarter			
		Employee symposium	Month/six months			
		Feedback email	Irregular			
Customers	Provide product demand or market sales targets	Customer audits/meetings	Quarter	<ul style="list-style-type: none"> Sustainable supply chain Information security management Greenhouse gas emissions Air Quality Management Compliance with laws and regulations 	<ul style="list-style-type: none"> Conduct customer satisfaction surveys and establish an appeal mechanism to maintain customer service quality. Integrated the spirit of sustainability into procurement policies, promoted supplier environmental/social performance evaluations and audits, and avoid purchasing conflict minerals. Established a security management organization, obtained international information security standard ISO 27001, introduced the NIST CSF maturity assessment mechanism, and performed OT security health clinics, regularly conducting disaster recovery exercises for information systems to confirm customer information confidentiality. Adopted two major strategies of "mitigation" and "adaptation" to respond to climate change, and carbon management from product, process, and supply chain perspectives. Different prevention and control equipment is used to treat volatile organic compounds (VOCs), sulfur oxides (SOx), nitrogen oxides (NOx), and particulate pollutants, in accordance with regulatory standards. 	<ul style="list-style-type: none"> Customer satisfaction reached 86%. 100% of suppliers do not use conflict minerals. Establish an information security management system to prevent confidential information leaks. Greenhouse gas inventory for all operations. The total emissions of volatile organic compounds (VOCs) are far below the emission standards specified by regulations.
		Questionnaires	Quarter/year			
		Websites	Irregular			
		Customer supplier conferences	Irregular			

Stakeholders	Significance to ASECL	Engagement method	Communication frequency	Concerns	Management measures	Communication performance
Suppliers/ contractors	Provide various required resources and human resource	Procurement Meeting	Irregular	<ul style="list-style-type: none"> Business ethics Information security management Waste management Occupational health and safety Workplace inclusion 	<ul style="list-style-type: none"> Promulgate codes of conduct and ethics, and establish a reporting system to avoid unfair/anti-competitive behavior. Develop privacy policies, take responsibility for protecting data and information, and maintain confidential business information to ensure privacy. Reduce and recycle waste, allowing products, components, and raw materials to be recycled and reused, demonstrating the value of sustainable resources. Introduce an occupational health and safety management system to prevent occupational injuries, conduct disaster prevention drills, and collaborate with contractors to implement safety management. Conduct human rights risk assessments and mitigation measures on issues such as privacy, personal information, child labor, foreign migrant workers, forced labor, discrimination, freedom of assembly, equality/equity, and establish an inclusive workplace. 	<ul style="list-style-type: none"> Assisted two suppliers in obtaining ISO 14064-1 and carbon footprint certifications. 100% of suppliers and collaborators signed the code of conduct commitment. The intensity of hazardous waste has decreased by 11.4% compared to 2021, and the recovery rate of non-hazardous waste reached 100%. Establish contractor management strategies. Policies work-related injury event=0 Annual cases of violating business ethics are zero.
		Contractor meetings	Month			
		Education and training for contractors	Week			
		Sustainable management assessments	Year			
		Audits	Irregular			
Governments	Mutual information exchange targets through various channels	Official document	Irregular	<ul style="list-style-type: none"> Water resource management Greenhouse gas emissions Energy management Waste management Air Quality management Product lifecycle 	<ul style="list-style-type: none"> Conduct water source analysis and monitoring, improve process water efficiency (water recycling plant), actively reduce wastewater discharge, and participate in CDP water disclosure initiatives. Adopted two major strategies of "mitigation" and "adaptation" to respond to climate change, and carbon management from product, process, and supply chain perspectives. Improve the efficiency of energy resource utilization through processes and equipment, introduce into the smart grid, and develop strategies and steps for using renewable energy. Reduce and recycle waste, allowing products, components, and raw materials to be recycled and reused, demonstrating the value of sustainable resources. Different prevention and control equipment was used to treat volatile organic compounds (VOCs), sulfur oxides (SOx), nitrogen oxides (NOx), and particulate pollutants, in accordance with regulatory standards. Introduced the "Product Lifecycle Management" method to audit and control the source of product raw materials; 100% compliance with RoHS and REACH standards for raw materials. 	<ul style="list-style-type: none"> Introduce ISO 46001 water efficiency management systems. Greenhouse gas inventory for all operations. Renewable energy accounts for 0.7% of total electricity consumption. The intensity of hazardous waste has decreased by 11.4% compared to 2021, and the recovery rate of non-hazardous waste is 100%. The total emissions of volatile organic compounds (VOCs) are far below the emission standards specified by regulations. In 2022, the key materials used in ASECL production processes 100% complied with RoHS and REACH specifications.
		Professional tutoring/review/promotion meetings	Irregular			
		Audit by competent authorities	Irregular			

Stakeholders	Significance to ASECL	Engagement method	Communication frequency	Concerns	Management measures	Communication performance
Communities / Nonprofit organizations	Understanding the recipients of social needs	Communication with dedicated personnel	Irregular	<ul style="list-style-type: none"> Water resource management Greenhouse gas emissions Waste management Air Quality management Social involvement Noise management 	<ul style="list-style-type: none"> Conducted water source analysis and monitoring, improved process water efficiency (water recycling plant), actively reduced wastewater discharge, and participated in CDP Water initiatives. Adopted two major strategies of "mitigation" and "adaptation" to respond to climate change, and carbon management from product, process, and supply chain perspectives. Reduce and recycle waste, allowing products, components, and raw materials to be recycled and reused, demonstrating the value of sustainable resources. Different prevention and control equipment was used to treat volatile organic compounds (VOCs), sulfur oxides (SOx), nitrogen oxides (NOx), and particulate pollutants in accordance with regulatory standards. Participated in environmental welfare, community building, industry education, and social integration, and provided external support for sustainable initiatives, playing a positive role in this field Formulated "Noise pollution Act Enforcement Rules" and set Chung-Li's own noise control standards. 	<ul style="list-style-type: none"> There have been no incidents of water discharge not meeting the discharge standards or environmental pollution incidents Renewable energy accounts for 0.7% of total electricity consumption. The intensity of hazardous waste has decreased by 11.4% compared to 2021, and the recovery rate of non-hazardous waste is 100%. Special personnel was assigned to handle incidents reported by the community as a matter of urgency. The average volume of the entire factory area during operations does not exceed the Class IV factory noise control standard. The total amount invested in social participation is approximately US\$360,000.
		Community and school activity support	Irregular			
		Communication of company activities	Irregular			
Media	Relations with the public	Communication with dedicated personnel	Irregular	<ul style="list-style-type: none"> Sustainable supply chain Product lifecycle management Water resource management Greenhouse gas emissions Waste management 	<ul style="list-style-type: none"> Integrated the spirit of sustainability into procurement policies, promoted supplier environmental/social performance evaluations and audits, and avoided purchasing conflict minerals. New process and new product R&D, taking into account environmental and social innovation in research and development. From the stages of materials, procurement, design, production, and logistics assembly, the company aims to improve energy efficiency, reduce the use of raw materials and hazardous substances, provide sustainable manufacturing services, and strengthen the acquisition of high-quality products and intellectual property rights. Conduct water source analysis and monitoring, improve process water efficiency (water recycling plant), reduce wastewater discharge, and participate in CDP water disclosure initiatives. Adopted two major strategies of "mitigation" and "adaptation" to respond to climate change, and carbon management from product, process, and supply chain perspectives. Reduce and recycle waste, allowing products, components, and raw materials to be recycled and reused, demonstrating the value of sustainable resources. 	<ul style="list-style-type: none"> 100% of suppliers do not use conflict minerals. The key raw materials and chemicals used in the production process are 100% compliant with RoHS and REACH specifications. Introduce ISO 46001 water efficiency management systems. Attended the 2022 ESG Summit hosted by the Accounting Research and Development Foundation co-hosted by the ASEH, inviting experts from industry, government, and academia to jointly explore how the technology industry can use circular economy technology to achieve net zero enterprise emissions. No environmental violations have occurred.
		Communication of company activities	Irregular			
		Consultations on environmental issues	Irregular			
		Proactively releasing news	Irregular			

The Process of Identifying Material Topics

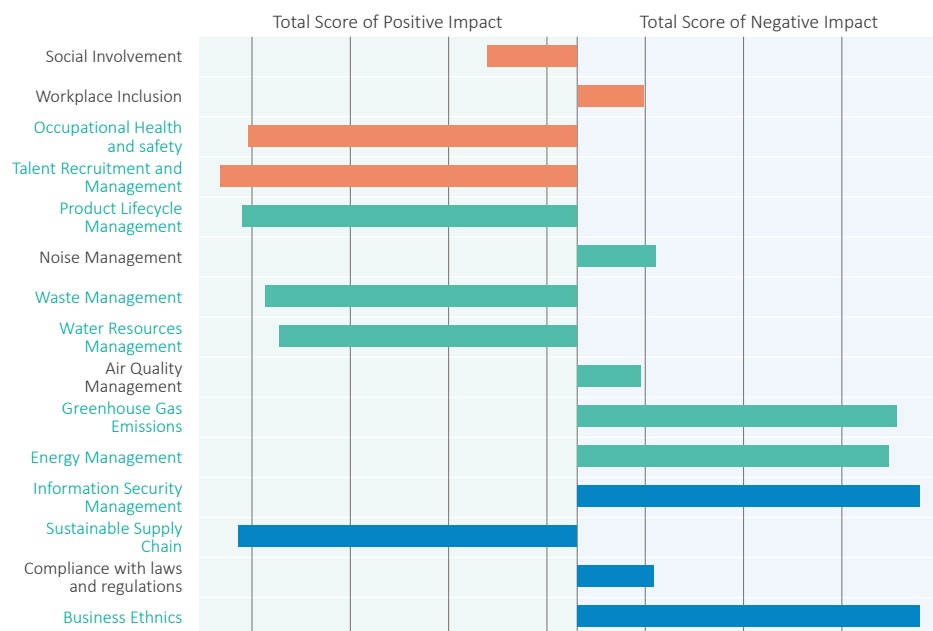
Chung-Li Branch mainly follows the sustainability issues listed in the GRI Guidelines and SASB Guidelines, and refers to the seven key stakeholders identified by parent company ASEH. In addition, Chung-Li Branch's Corporate Sustainability Committee team selected six key stakeholders and ranked them according to the GRI General Criteria 2021 after senior executives and the Corporate Sustainability Committee team identified the material topics, and disclosed the impact, management strategy, and practical status of each material topic. The results were also used to calibrate the sustainability objectives and strategies of ASECL and to enhance the effectiveness of external communication.



Analysis and Ranking of Material Topics

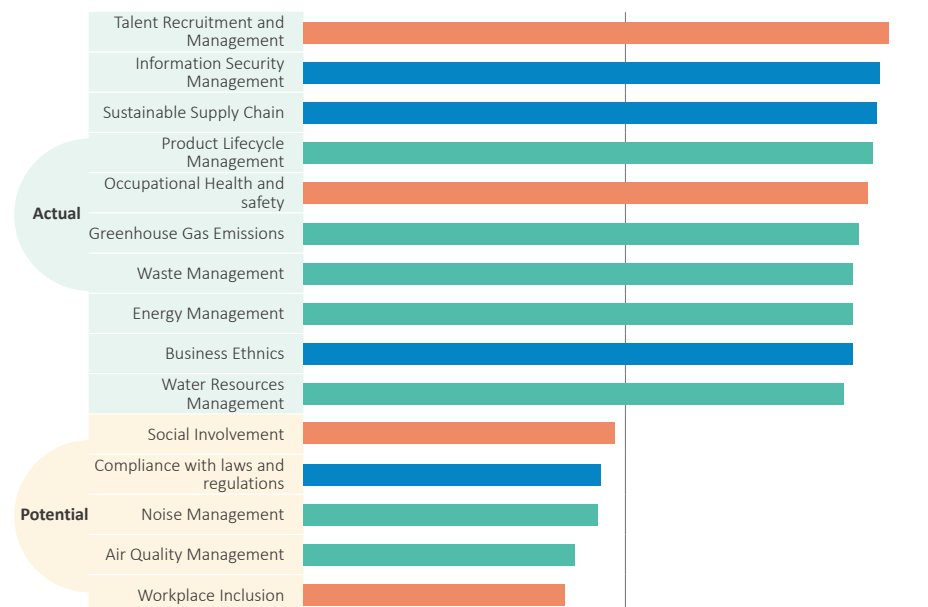
After completing stakeholder engagements, operational impacts are evaluated, and material topics identified, tested, and established. We conducted a standardized and quantitative internal evaluation exercise through the 'Sustainability Issues Significance Assessment Questionnaire' to identify positives and negatives, as well as actual and potential impact. We ranked the 10 major themes that should be prioritized in this report, including five covering environmental aspects, two social (people and group), and three economic. After discussing and reviewing the suitability of relevant processes and standards with external consultants and experts, the Corporate Sustainability Committee confirms that there are no omissions in material topics, and submits them to the Corporate Sustainability Committee representative for approval before continuing with the preparation of the report.

2022 ASECL material topics evaluation scale – Positive and negative impact analysis



Note: The text highlighted in green is a material topic for this year

2022 ASECL material topics assessment scale – Actual and potential impact analysis



Note: The text highlighted in green represents the actual impact of this year's identified topics; text highlighted in yellow indicates a potential future impact.

List of Material Topics

■ Direct impact
 ● Indirect impact
 ▲ Business Relationships

No.	Material topics	Principles for Responding	Significance for ASECL	Impact on value chain			對應章節
				Upstream Suppliers	ASECL	Downstream Suppliers	
1	Talent Recruitment and Management	GRI 401	Employees are the most important asset of ASECL. To attract talent to join ASE and retain outstanding talent, we have established a mechanism for analyzing and improving the reasons for resignation, a system for industry-university cooperation, and a systematic system for education, training, and promotion. Through these measures, we hope to encourage talent to remain, and grow and thrive together with the company, and provide customers with better product services through the stable input of excellent talent, thereby enhancing the company's profits.	▲	■		Employee Profile Distribution
2	Information Security Management	GRI 418	Ensuring the security of customer information assets is the responsibility of ASE. To avoid external security threats, Chung-Li Factory continues to strengthen information security management. Starting from 2020, we have introduced and conducted an annual review of the ISO 27001 information security certification, established an Information Security Committee, and built an information protection mechanism to ensure the company's competitiveness through the establishment of overall information security awareness and the environment.	▲	■	▲	Information Security and Personal Data Risks
3	Sustainable Supply Chain	GRI 204	To avoid negative impacts on production caused by supplier supply issues, ASECL conducts monthly reviews of supplier performance through internal supplier service quality indicators. To jointly fulfill corporate social responsibility with suppliers and avoid negative issues related to human rights and occupational safety, ASECL also encourages partners to follow the ASE Group Supply Chain Sustainability Management Policy and System, closely integrated with the RBA Code of Conduct, and work together with the supply chain to fulfill corporate social responsibility.		■	▲	Sustainable value chain
4	Product Lifecycle Management	TC-SC 410a.1 TC-SC 410a.2	To avoid the negative impact of environmental pollution caused by the products produced during the waste and recycling stages, key raw materials and chemicals used in ASECL 100% comply with RoHS and REACH regulations, minimizing the impact on the environment.		■	●	Implementation of product lifecycle management
5	Occupational Health and Safety	GRI 403	In the workplace, 'safety first' is the highest principle. ASECL focuses on workplace safety for its employees and is committed to enabling a healthy and safe environment. Chung-Li Factory has an Occupational Health and Safety Committee responsible for planning, implementing, evaluating, and improving occupational health and safety. Chung-Li Factory also regularly arranges occupational health and safety education and training for employees, and through accident investigation and analysis, enables colleagues to understand the causes of accidents and avoid similar accidents.	●	■		Occupational health and safety management system

■ Direct impact
 ● Indirect impact
 ▲ Business Relationships

No.	Material topics	Principles for Responding	Significance for ASECL	Impact on value chain			對應章節
				Upstream Suppliers	ASECL	Downstream Suppliers	
6	Business Ethics	GRI 205	If an enterprise engages in unethical business behavior, it may be fined, having an impact on the company's reputation and development. ASECL not only conducts basic moral training courses and advocates compliance regularly, but also conducts regular corruption risk assessments every year to prevent improper behavior.	■	■	●	Integrity management
7	Greenhouse gas emissions	GRI 305	To comply with domestic regulations and respond to international trends, ASECL has introduced the ISO14064-1 greenhouse gas inventory management system to conduct inventory of greenhouse gases generated during operation and set medium- to long-term emission reduction targets. Chung-Li Factory has demonstrated its determination to reduce carbon emissions by exposing emissions and setting reduction targets.	■	■		Greenhouse gas emissions
8	Energy Management	GRI 302	ASECL is committed to reducing energy consumption by introducing the ISO 50001 energy management system, purchasing renewable energy and certificates, and setting reduction targets for energy conservation with the aim of reducing environmental impact and enhancing corporate competitiveness through energy-saving measures.		■		Energy management
9	Waste Management	GRI 306	The three major management principles of ASECL are to reduce volume and capacity of waste, reuse, and recycle. We use methods such as optimizing waste recycling and tracking and controlling manufacturers to ensure that waste is properly disposed of in a legal and compliant manner through source reduction and recycling of materials, as well as monitoring of recycling manufacturers. Through the above methods, ASECL not only improves the reuse rate of materials, but also reduces the negative impact on the environment.	■	■		Waste management
10	Water Resource Management	GRI 303	As a major water user industry, the stability of water resources is one of the important environmental projects of Chung-Li Plant. In recent years, due to the occurrence of water scarcity incidents in Taiwan, we have become more aware of the importance of water resources for operations. To alleviate the operational impact of water resources, Chung-Li Plant not only introduced the ISO 46001 water resource management system, but also established a wastewater recovery mechanism to recycle, treat, and reuse process water.	■	■		Water resource management



Sustainability Governance

Sustainability Commitment and Strategy

Ethical Corporate Management

Risk Management





Sustainability Commitment and Strategy

ASECL established a sustainable development unit in 2015, considering sustainable development part of corporate operational decision-making. Through the ESG architecture, it examines corporate management and develops sustainable strategies to achieve sustainable business goals and fulfill corporate social responsibilities.

ASECL strictly adheres to the philosophy of the Corporate Governance Best Practice Principles, and practices and implements sustainable operations. As an important member of the international semiconductor industry chain, it has a comprehensive layout based on the development and needs of the global industry, strives for global talent and resources, and cooperates with the industry to develop strategic alliances and strengthen innovation, and generates a mutually beneficial business environment with business partners to achieve the sustainable goal of improving the quality of life and environment for all humanity in the technology industry.

ASECL actively organizes promotional activities related to sustainable development to enhance the company's image and promote its ESG achievements. The main promotion activities include: 1 Broadcast videos introducing the company and ESG achievements on the TV wall in the lobby of the building with updated content; 2. Continuously updating the company profile and sustainability-related topics every financial reporting quarter, and introducing them to important customers and stakeholders. Furthermore, in 2022, the company was awarded the Full Score Award by the Responsible Business Alliance (RBA), representing ASECL's outstanding performance in environmental protection, human rights, ethics, and other areas.

ASECL also actively participates in activities to further elaborate on its commitment to and practice of sustainable development. For example, in 2022, ASECL attended the ESG Summit hosted by the Accounting Research and Development Foundation, co-hosted by ASEH. The summit invited experts from the industry, government, and academia to jointly explore how the technology industry can use circular economy technology to achieve net-zero and other goals for enterprises. Through these promotional activities and participation in related events, ASECL demonstrates its emphasis on sustainable development and proactive actions.

Commitment to Sustainable Development Policies

To practice sustainable development, effectively manage issues, and avoid negative impacts on the operation and reputation of ASECL, we follow the "[Corporation Human Rights Management Framework](#)" of our parent company, ASEH, and comply with the PDCA process to regularly conduct due diligence on human rights issues, assess human rights risks and potential impacts, and review Chung-Li Branch's human rights policies, regulations, and procedures based on the evaluation results to ensure the completeness of regulations and processes.

We also promote the sustainability spirit of ASECL to our colleagues regularly and irregularly, and print content on small cards for distribution based on the "[Sustainability Related Policies and Commitments](#)" established by our parent company, ASEH. In terms of new hires and on-the-job training, relevant policy commitments have also been incorporated into the curriculum and teaching materials of ASECL's education and training. Through the above methods, we ensure that colleagues within ASECL have a sense of sustainability in their work and are integrated into the work environment. We will continue in the future to improve training and implement our commitments in all corners of ASECL.

ASECL's Corporate Sustainability and Citizenship Policy

ASE Technology Holding Co., Ltd. and its subsidiaries are global leaders in semiconductor assembly and testing services, as well as major system and core technology integrators, playing an important role in the transformation to a green and low-carbon economy. We view sustainable development and corporate citizenship as opportunities for our company's growth, and promise to provide ecologically efficient and responsible services to our customers to achieve excellent performance in the economy, environment, and society (people/group).

ASECL leads innovative and sustainable corporate responsibility practices, having a positive impact in the industry, business, stakeholders, and society as a whole.

ASECL is committed to pursuing the sustainable growth of enterprises through a strategic approach. It not only sustains cost control, integrated risk management, and advanced technology development, but also responsibly utilizes natural, social, and human capital to coexist and thrive with the land on which we rely and provides our resources.

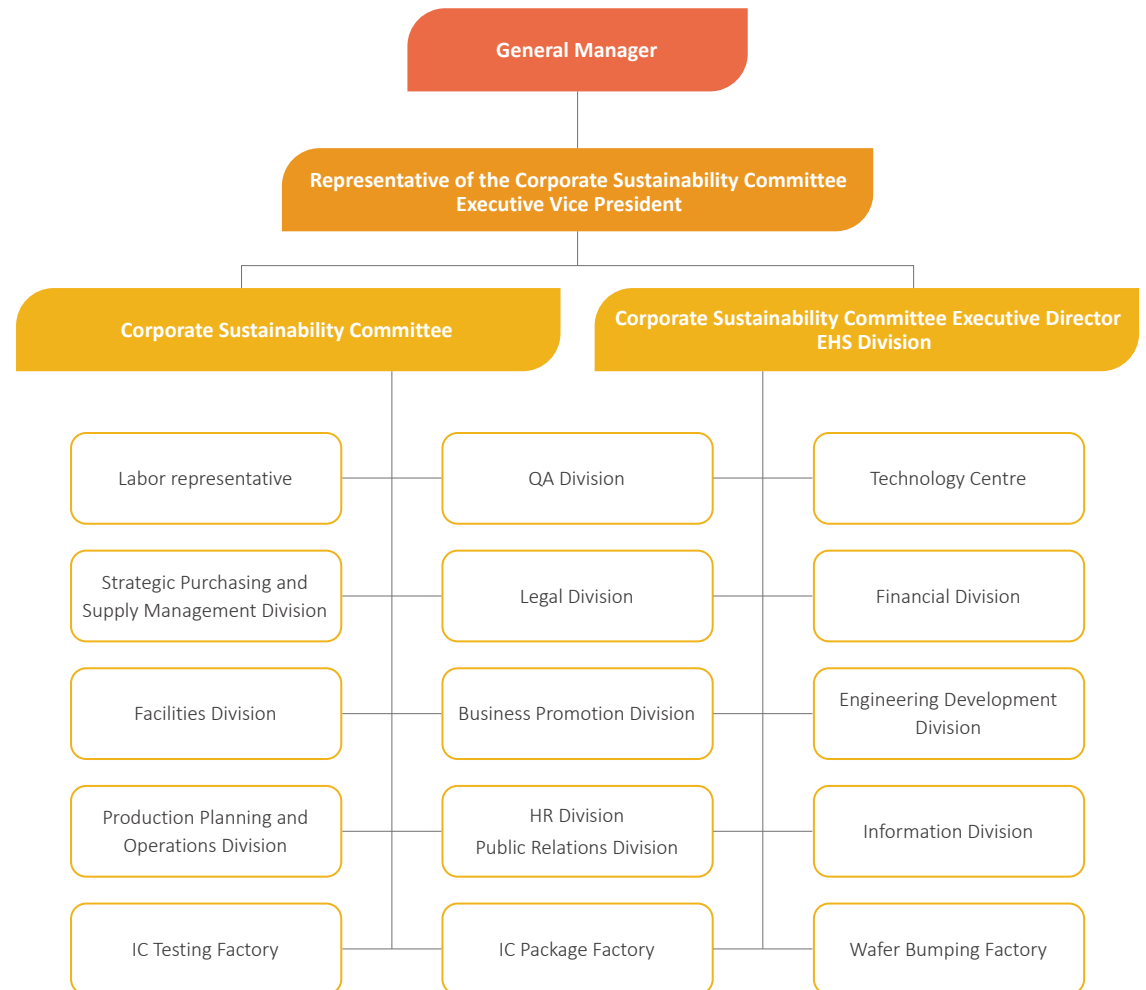
ASECL is committed to:

- ◆ Maintaining sound corporate governance, conducting business ethically, following international standards, and complying with all laws and applicable regulations of the jurisdictions in which we operate.
- ◆ Minimizing climate change through mitigation and adaptation. We are committed to improving and protecting the environment by recycling resources, reducing wastewater discharge and greenhouse gas emissions, and reducing waste generation and chemical use.
- ◆ Providing a safe, healthy and high-quality work environment for our employees as well as protecting their human rights to help shape a diverse labor force.
- ◆ Establishing partnerships with our suppliers to ensure that they provide a safe working environment, their employees are respected and their dignity is preserved, and their operations are ethical and environmentally friendly.
- ◆ Being an active participant in charitable activities, education planning, and social work. ASEH's optimal allocation of resources allows it to continuously give back to the community and spread positivity.
- ◆ Conducting effective and strategic stakeholder engagement and communication while emphasizing transparent and balanced information disclosure.

Corporate Sustainability Committee

To improve the management of sustainable development and establish and promote a governance structure for sustainable development, the EHS Division convenes cross-departmental personnel as executive committee members to form the Corporate Sustainability Committee, with the General Manager as the chair. The Corporate Sustainability Committee assists in proposing and implementing sustainable development policies, systems, and related management guidelines and specific promotion plans, and regularly reports the performance to the General Manager to enhance the overall practice of the company's sustainable business strategy. In addition, the EHS Division is also the working group of ASECL's Corporate Sustainability Committee, responsible for ISO system validation and management, ESG-related work promotion, and internal environmental, and health and safety risk management and damage prevention.

In terms of practical management, each department of ASECL is responsible for collecting ESG issues related to the factory every year. These are then compiled by the EHS Division and submitted to the General Manager. At least four Corporate Sustainability Committee meetings are held to conduct impact assessments and discussions of the three aspects of the economy, environment, and society (people/group) related to ASECL to formulate management policies and make policy decisions. In 2022, ASECL Corporate Sustainability Committee meetings were held 12 times, with an average attendance rate of 100% among committee members.



ASECL's Corporate Sustainability Committee Organizational Chart

Ethical Corporate Management

Management of the material topic "Business Ethics" at ASECL in 2022

Material topics	Business Ethics
Corresponding GRI Index	GRI 205-1 Operations assessed for risks related to corruption GRI 205-2 Communication and training about anti-corruption policies and procedures GRI 205-3 Confirmed incidents of corruption and actions taken
SDGs Principle	SDG 16: Peace, justice and strong institutions
Commitments and Policies	Maintaining sound corporate governance, conducting business ethically, following international standards, and complying with all laws and applicable regulations in the jurisdictions in which we operate.
Metrics and Targets	<ul style="list-style-type: none"> Annual violations of Business Ethics = 0. The completion rate of labor ethics education and training is 100% annually. Comprehensive promotion is conducted throughout the factory once a year.
Effectiveness Tracking Mechanism	A Business Ethics risk assessment is conducted once a year.
Actions and Measures	<ul style="list-style-type: none"> Mitigation and prevention measures (for negative impacts) <ol style="list-style-type: none"> Educational training: The basic legal concepts course as part of new joiner training covers the Code of Business Conduct and Ethics of the parent company, ASEH, including content related to preventing conflicts of interest, anti-corruption, prohibiting insider trading, fair competition, and prohibiting improper donations to ensure ethical corporate management. Awareness raising activities: Announcement of personnel policy documents, and annual Code of Business Conduct and Ethics promotion. Business Relationships: There are anti-corruption clauses in the contracts with major suppliers. Online courses: Group trade secrets education and training, and ethical corporate management education and training. Relevant management measures and performance <ol style="list-style-type: none"> New employee ethics training course (completion rate of 100%). Announcement of the Code of Business Conduct and Ethics factory-wide. Group IDL trade secret education and training (completion rate of 100%). Group IDL ethical corporate management education and training (completion rate of 100%). Violations of Business Ethics = 0 in 2022.

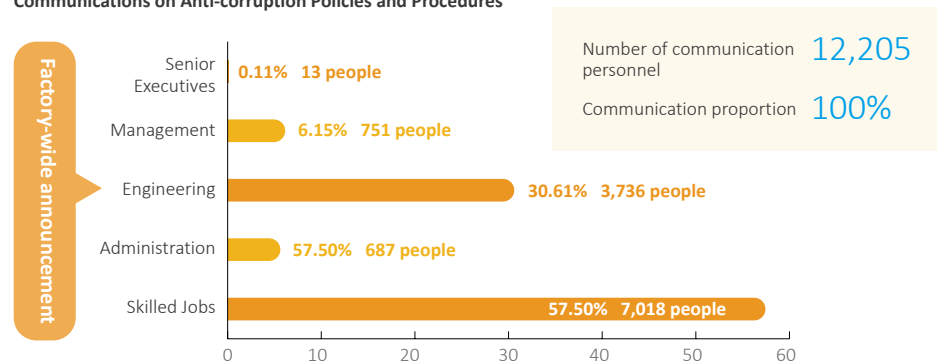
Business Conduct and Ethics

To implement the corporate culture of ethical corporate management in the group and track its effectiveness, ASECL regularly conducts corruption-related risk assessments based on the factory's internal standards every year. In 2022, it conducts corruption-related risk assessments for a total of 30 departments throughout the factory and receives corruption reports through the quarterly whistleblower reporting mechanism. No corruption reports were received in 2022. In the future, we will continue to adhere to the principles, standards, and codes of conduct related to business conduct and ethics of the group, and are committed to safeguarding the company's assets and avoiding inappropriate behavior. In 2022, ASECL did not have any corruption cases either, so no relevant actions were required. Should any cases of a violation of business conduct and ethics occur, ASECL will handle them in accordance with internal disciplinary norms and procedures.

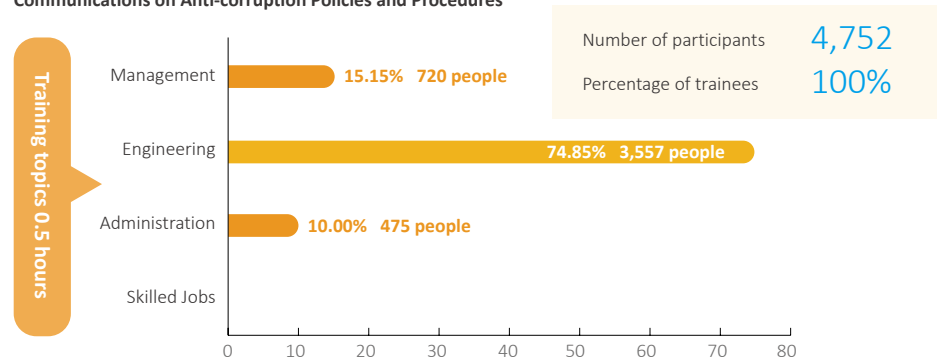
Anti-Corruption Communication and Training

ASECL advocates ethical corporate management. In addition to following the Group's policies related to ethical corporate management, it also provides communication channels for employees and business partners. In terms of personnel education and training, in accordance with the instructions of the parent group, ASEH, it provides anti-corruption course materials targeting internal indirect personnel. Education and training is provided for management, technical and affairs positions and anti-corruption policies are also promoted for direct personnel to reduce the risk of bribery and corruption.

Communications on Anti-corruption Policies and Procedures

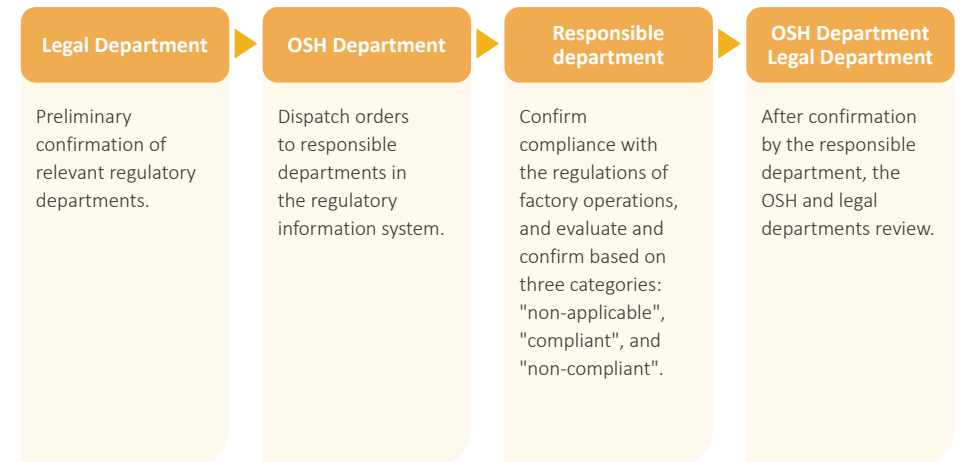


Communications on Anti-corruption Policies and Procedures



Compliance with laws and regulations

Compliance with regulatory requirements and lawful operations are the most basic social responsibilities of enterprises, and key to sustainable operation. ASECL has established a regulatory information system to ensure that its operational activities comply with local government regulations. The legal department of ASEKH provides the latest revisions and additions of regulations to the legal department of ASECL on a weekly basis. ASECL follows the following process for compliance with laws and regulations:



In addition, monthly confirmation of the latest regulations in the Laws & Regulations Database of the Republic of China and the Taoyuan City Laws and Regulations Retrieving System are conducted. Close attention is paid to the formulation and latest amendments to regulations that may have an impact on the company. Compliance assessment of regulatory policies has been carried out in accordance with the regulatory identification management procedure to ensure that the practical operations of each department truly comply with relevant requirements and specifications. ASECL has not been subject to any disciplinary action or punishment due to illegal or non-compliant incidents in 2022.

Compliance Training

To provide timely assistance and consultation services related to laws and regulations in various departments, ASECL has a feedback platform where employees can obtain relevant regulatory information through internal websites. We also conduct regular education and training on various laws and regulations to ensure that colleagues are aware of the latest standards so practical operations can be reviewed and updates, and accidental violations can be avoided due to a lack of understanding of regulations. We also strengthen employees' legal compliance and moral awareness to implement the most basic social responsibility of the enterprise.

ASECL's Compliance-related Education and Training in the Past Three Years

Year	Training courses	Course objectives and benefits	Target audience
2020	<ul style="list-style-type: none"> Integrity Education and Training of ASE Group Legal Awareness of Business Secrets of ASE Group 	1.The purpose of educational training is to ensure that ASECL colleagues comply with all regulations, establish a sound regulatory identification process, implement education and training, and build a sound management system. In addition, as a management policy for ASECL employees to comply with the law, the content of the course also allows employees to understand that they must not engage in or instruct others to engage in any illegal or unethical behavior for any reason.	Indirect personnel throughout the factory
2021		2.In addition to enhancing regulatory awareness of employees, ASECL also has relevant regulations and guidelines, including the Code of Business Conduct and Ethics, Sustainable Development Best Practice Principles for TWSE/TPEX Listed Companies, Ethical Corporate Management Best Practice Principles, Procedures for Ethical Management and Guidelines for Conduct, and Anti-corruption Prevention Measures, etc., working together with all employees to adhere to the highest ethical standards and implement them in all daily management and work to avoid corruption and any form of fraudulent behavior.	
2022			

Whistleblowing and Advice Channels

Acceptance process for reporting and appealing cases

Integrity and responsible business behavior are the foundation of a company's sustainable operations. ASE has established various channels for appeals, reporting, and recommendations, as well as a whistleblowing mechanism to encourage stakeholders to report, appeal, or provide relevant advice against dishonest, unethical behavior, or any operational activities that have an impact on the economy, environment, and society. In terms of internal personnel, ASE also uses an electronic bulletin board to announce and issue reports covering the employee opinion box and employee assistance service system set up on the internal website, while external personnel can use the public mailbox codecompliance@aseglobal.com or refer to the [Code of Conduct Reporting System](#) directly contact the parent company, ASEH, to report illegal activities.

Our company also provides the option of anonymous reporting, and the receiving department must strictly keep the identity of the informant and events confidential. Unless necessary for the investigation, relevant information will not be provided to third parties to avoid unfair and unfavorable treatment. Our [Code of Business Conduct and Ethics](#) specifies the relevant protection system, case acceptance process, and handling standards for violations. In 2022, ASECL received 0 appeals and 0 reported cases.

ASECL's Appeal and Reporting Case Statistics in the Past Three Years

Case category \ Year	2020	2021	2022
Business Conduct	0	0	0
Environmental Issues	0	0	0
Workers' Rights	0	0	0
Human Rights (such as discrimination, inequality)	0	0	0
Total	0	0	0

Risk Management

Risk Management Committee

The Risk Management Committee is under the jurisdiction of the Chung-Li Branch General Manager Office and is responsible for assigning responsible departments based on the characteristics of each impact risk type. The responsible departments report on risk types, impact descriptions, and response strategies and actions at regular annual risk management meetings. The Risk Management Committee evaluates and reviews the results reported by various departments, and the convener of the committee then summarizes major risk impacts. Regular reports are provided to the General Manager once a year, who also regularly reviews the effectiveness of the company's impact management at this meeting.

ASE Chung Li Branch's Risk Impact and Corresponding Strategies and Actions

Risk category	Description of cause of risk	Response strategies and actions	Responsible department
Strategic and Operational Risks	<ol style="list-style-type: none"> 1. The escalation of conflicts between the United States and China has led to unstable material supplies 2. Successor Plan 	<ol style="list-style-type: none"> 1. Establish alternative suppliers and inventory whether the required materials have production factories in other countries to avoid geopolitical risks. 2. Career planning for key talent. 	Strategic Purchasing and Supply Management Division HR Division
Market Risk	<ol style="list-style-type: none"> 1. Improper pre-planning of product/technology development 2. Insufficient timeliness in planning and adjusting to future market conditions 	<ol style="list-style-type: none"> 1. Import the engineering project system to ensure that the development project can proceed according to the Advanced Product Quality Planning (APQP) process. 2. Organize a market research team and develop a work model, select markets with growth potential or strategy for data collection and analysis, develop plans, and combine business/R&D/engineering departments for market promotion and business expansion. 	Engineering Development Division Business Promotion Division
Financial Risk	<ol style="list-style-type: none"> 1. Failure to implement customer credit limit control may even result in customers declaring bankruptcy without warning 2. False statements or deliberate omissions of financial statement matters, transactions, or other significant information 3. Accounting processing or accounting processes fail to capture or reflect the actual transaction situation 	<ol style="list-style-type: none"> 1. Monthly review of customer credit ratings and accounts receivable, conduct credit risk management analysis, and take corresponding measures for high-risk customers. 2. Regular audits of financial statements and the applicability of accounting systems are conducted by external accountants, and reviewed by the responsible supervisor. 3. Before closing the account, financial personnel will obtain the valuation basis in accordance with accounting policies, and analyze the changes in the two periods to determine the estimated amount at the end of the month, which will be reviewed by the responsible supervisor. 	Financial Division

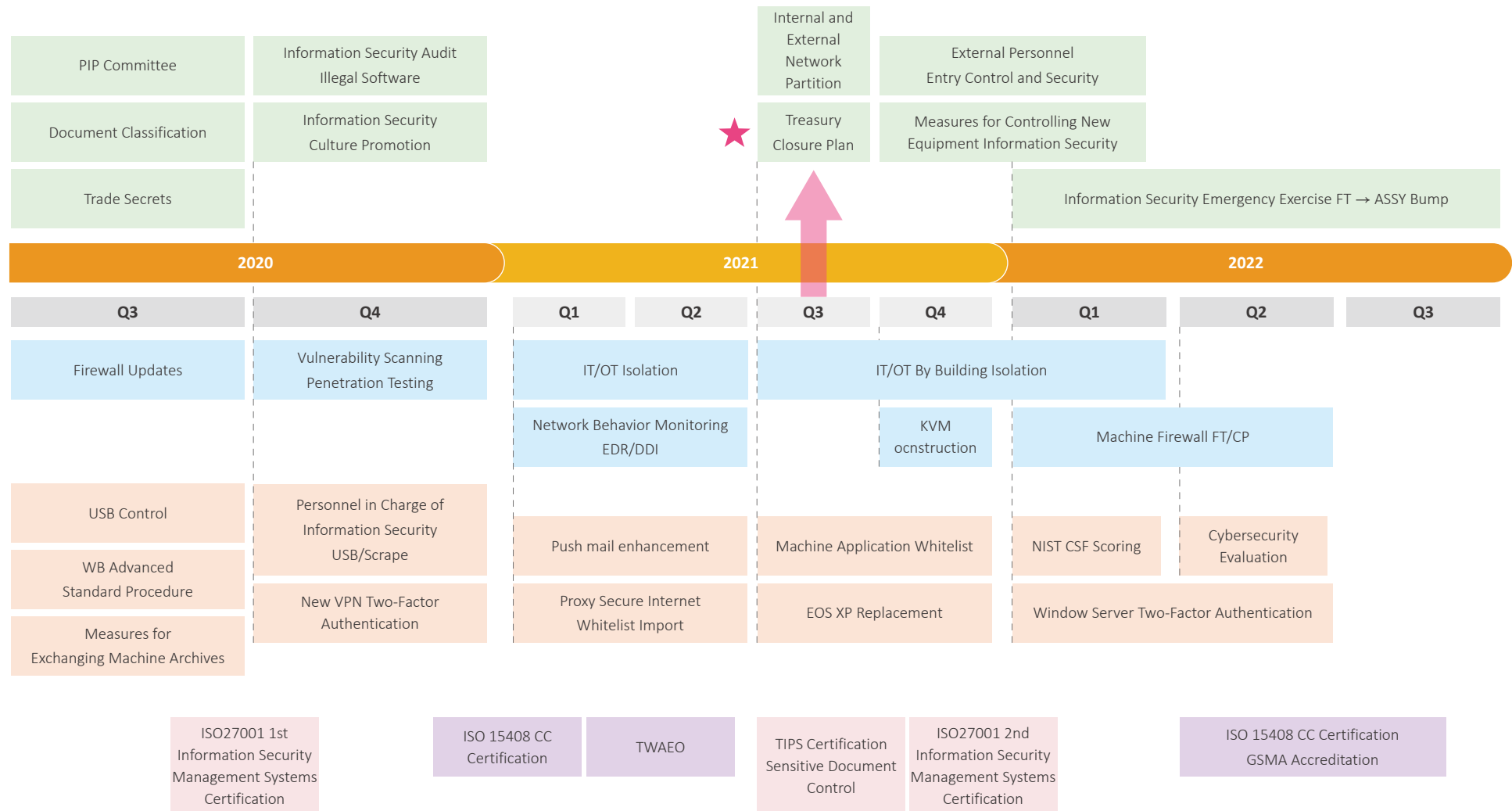
Risk category	Description of cause of risk	Response strategies and actions	Responsible department
Regulatory Risk	<ol style="list-style-type: none"> 1. The use of conflict metals leads to end-customers violating the Dodd-Frank Wall Street Reform and Consumer Protection Act 2. Air, water and waste treatment does not comply with the regulations 	<ol style="list-style-type: none"> 1. ASE conducts independent third-party audits annually to confirm that conflict mineral declaration reports and due diligence procedures comply with the regulations promulgated by the United States Securities and Exchange Commission. 2. Inspection of wastewater treatment plants and pipeline air pollution equipment. 	Strategic Purchasing and Supply Management Division
Climate Change Risk	<p>Comply with government environmental regulations, as follows:</p> <ol style="list-style-type: none"> 1. Carbon emissions 2. Alternative energy sources 3. Waste reduction 	<ol style="list-style-type: none"> 1. Inspect the factory and cooperate with government audits to comply with government laws and regulations. 2. Collaborate with parent company ASEH to purchase green energy. 3. Daily waste clearance inspections and waste declaration inspections. 	EHS Division
Supply Chain Management Risk	<ol style="list-style-type: none"> 1. Materials are too centralized for a single supplier 2. Suppliers suffer from natural and man-made disasters, disrupting operations, and affecting the supply chain 	<ol style="list-style-type: none"> 1. Establish alternative suppliers for key materials. 2. Establish a dynamic management mechanism for suppliers, periodically update their business status, and ensure a smooth supply chain. 	Strategic purchasing and supply management Division
Occupational Safety Risk	<ol style="list-style-type: none"> 1. Machine equipment may catch fire or melt due to overheating of internal components 2. Chemical leakage during filling or tank storage 3. Insufficient experience in emergency response makes it difficult to respond to risks quickly 	<ol style="list-style-type: none"> 1. Regularly measure the machine through non-contact infrared (IR) and conduct daily inspections. 2. Establish a standard operating procedure (SOP) for chemical filling and strictly implement it, and implement periodic detection of the liquid level gauge function in the tank. 3. Regular drills and educational training. 	EHS Division
Information Security and Personal Data Risks	<ol style="list-style-type: none"> 1. Installing illegal software on personal computers 2. Unauthorized data access resulting in leaks of confidential information 3. Hacker attacks or computer virus infections, resulting in the inability of the entire factory system to operate 	<ol style="list-style-type: none"> 1. Regularly inspect personal computers for illegal software and uninstall any such software. 2. The File Server Service has the authority to control and manage the USB of the entire factory. 3. Regularly update the network firewall and manage mail server traffic. 	IT

Information Security and Personal Data Risks

Management of the material topic "Information Security Management" at ASECL in 2022

Material topics	Information Security Management
Corresponding GRI Index	GRI 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data
SDGs Principle	SDG 11: Sustainable Cities and Communities
Commitments and Policies	The information security management policy of ASECL is to provide a reliable asset and information security operating environment, maintain the legitimate use of information systems and data, ensure the continuous and normal operation of the company's business, and achieve the company's asset and information security management goals. The goal of information security management is to ensure the confidentiality, integrity, and availability of information services in accordance with laws, regulations, and contractual requirements, and to continuously provide services.
Metrics and Targets	<p>Short-term goals:</p> <ul style="list-style-type: none"> Set up firewall isolation on each floor to protect IT systems. Set up firewall isolation on each floor to protect OT systems. Establish SIEM (Information Security Event Management). Smart Information and Regular Inventory of Business Secrets- conduct at least one factory-wide inventory round every year. Education and training on the awareness of protecting business secrets; We have completed a total of 1,500 training sessions for high-level and mid-level supervisors. <p>Medium-term goals:</p> <ul style="list-style-type: none"> Build firewalls for the core IT and OT systems.
Effectiveness Tracking Mechanism	<ul style="list-style-type: none"> Every year, the audit team conducts internal audits to review the effectiveness of the information security management system. Pass ISO 27001 certification. Passed TIPS verification.
Actions and Measures	<ul style="list-style-type: none"> Replace the computers with the Windows XP operating system assigned by the IT department. In response to the termination of support for the old IE 11 browser on February 14, 2023, our factory replaced the browser with New Edge on Q1, 2023. Reviewed relevant management measures and their performance, and issued an annual management review report.

Performance Planning and Roadmap of Chung-Li Branch's Confidential Information Protection Program

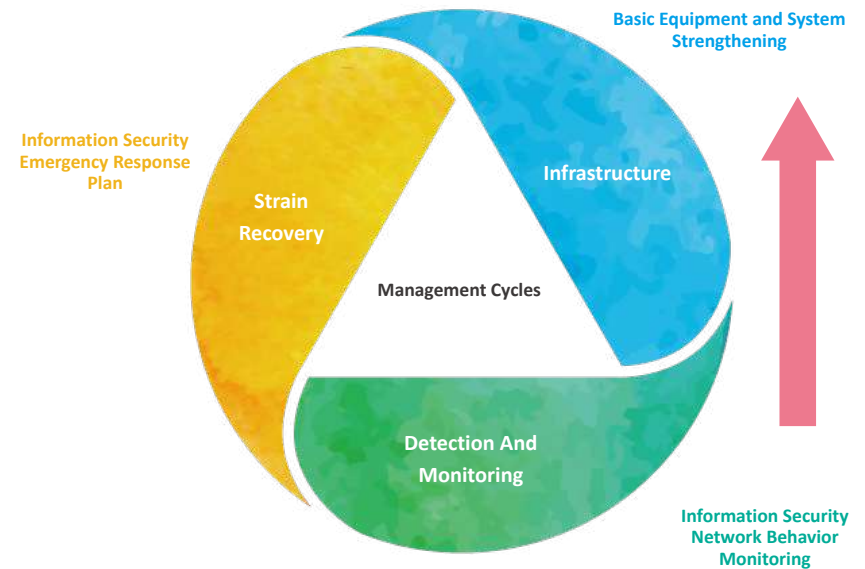


Information Security Policy

In the face of external information security threats, to ensure the overall competitiveness of the company and the security of customer information assets, ASECL introduced international security standards in 2020, passed the ISO 27001 Information Security Management Systems Certification, and conducts annual certification reviews to ensure the establishment and continuous improvement of information security management systems. Chung-Li Branch has also established the Information Security Management Committee responsible for reviewing information security governance policies, and supervising and continuously improving the operation of information security management. It is expected to construct a comprehensive information security protection mechanism through the PDCA cycle (Plan-Do-Check-Action) management approach, strengthen overall information security awareness and information security environment, and achieve a comprehensive security operation system for information, assets, and the environment.

Information Security Management Committee of ASECL is appointed by the General Manager as the Senior Administrative Vice General Manager to serve as the Chief of Enterprise Security, responsible for coordinating and executing overall safety operations in the company. The scope of the Information Security Management Committee is defined as the three main axes of "Information Asset Security", "Information Protection", and "Emergency Response Operations". It regularly conducts asset security testing and physical audit operations, as well as providing asset security publicity and education training courses to improve and strengthen the asset security environment. It also ensures the security of the company's information and assets through the operation mechanism of representatives from various departments of the company to strengthen employee safety awareness.

ASECL regularly reviews the Information Security Policy to reflect the latest developments in government regulations, technology, and business, ensuring the effectiveness of information security practices. The information security management policy is to provide a reliable asset and information security operating environment, maintain the legitimate use of information systems and data, ensure the continuous and normal operation of the company's business, and achieve the company's asset and information security management goals. Information security management goals ensure the confidentiality, integrity, and availability of information services and provide continuously available services in accordance with laws, regulations, and contractual requirements.



Personal Data Protection Management Policy

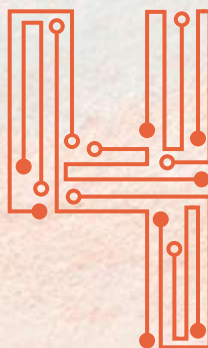
ASECL is responsible for collecting, processing, and utilizing personal data ("personal data") of company employees, customers, and all related personnel (such as personnel from third-party vendors, visitors, website users, investors or shareholders, and job seekers), as well as entrusting third parties to collect, process, and utilize the aforementioned personal data for operational needs. ASECL follows the personal data regulations of its parent company, ASEH, and according to the Personal Data Protection Act of Taiwan, Enforcement Rules of the Personal Data Protection Act, the General Data Protection Regulations of the European Union, privacy and personal data protection regulations applicable in the United States, mainland China, and other countries or regions in which the company operates, stipulated the Policy on the Protection of Privacy and Personal Data (see the [Personal Data Protection Policy](#) for more details). To implement our company's personal capital policy and strengthen employees' awareness of compliance with the law, we hereby reiterate to all employees of ASE the precautions for personal data collection, processing, and utilization.

Employees collecting, processing, and utilizing personal data should comply with the company's personal data policy and relevant laws and regulations of the location, and should comply with the following requirements:

1. Personal data constitutes confidential information as defined by our company, and we should fulfill our confidentiality obligations and responsibilities to keep such information safe and secure.
2. Respect the legal rights and interests of the parties involved, and carry out relevant procedures in accordance with the law (including, but not limited to, disclosure obligations, obtaining the consent of the parties involved, etc.). Conduct related procedures within the necessary scope of their duties and using accordance with honest and trustworthy methods, not exceed the necessary scope of specific purposes, and have a legitimate and reasonable connection with the purpose of collection.
3. Do not take advantage of their position to collect personal data that is not necessary for the performance of their duties, nor dispose of or utilize the personal data they hold for specific purposes.

4. Take reasonable and necessary measures to maintain the correctness of personal data, and proactively supplement or correct such data at the request of the personal data owner.
5. According to the company's requirements, conduct regular inventory and risk assessment of personal data (including systems) which must be kept safe and secure, and formulate relevant control operations based on risk assessment results.
6. Unless otherwise provided by laws and regulations, when collecting, processing, and use of personal data is no longer required, or when there is no longer a legitimate and reasonable connection with a specific purpose, or when the laws and regulations based on which personal data is retained no longer apply, the collection, processing, utilization, deletion, or destruction of such data shall be stopped voluntarily or at the request of the personal data owner; When actioning the former, a detailed record should be kept of the deletion, cessation of processing, cessation of utilization, or destruction of personal data for internal/external inspection.
7. If there is any leakage of personal data or other unauthorized disclosure, it should be immediately reported to all responsible supervisors.

In 2022, ASECL confirmed (filed) zero complaints of infringement of customer privacy, zero complaints from regulatory authorities, zero complaints of leakage/theft/loss of customer data, and zero complaints of privacy incidents. During the reporting period, there were no complaints related to an infringement of customer privacy or loss of customer information.



Supply Chain Management

Sustainable Value Chain

Supplier Risk Assessment

Supply Chain Evaluation and Audit

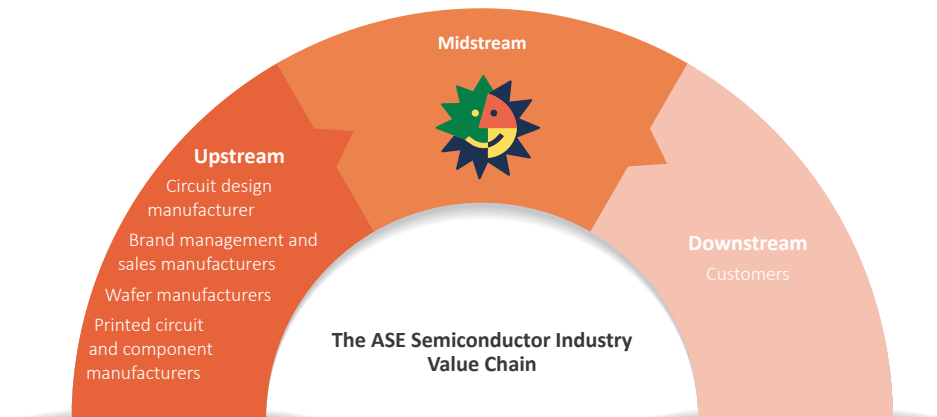
Sustainable procurement

Customer service

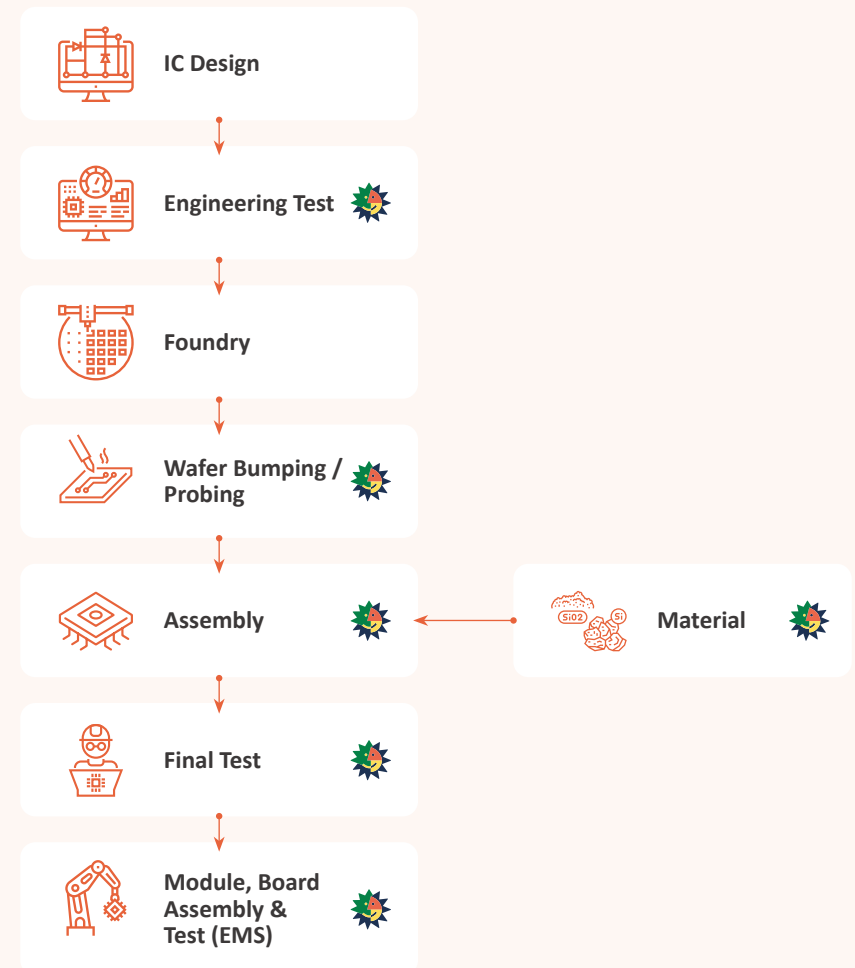
Sustainable Value Chain

ASECL focuses on the research, development, and production of IC assembly, testing, and materials. In the semiconductor assembly and testing industry chain, it is a midstream manufacturer, purchasing key raw materials such as wafers and ICs, machine equipment and related chemicals from upstream and outsourcing companies. After processing and manufacturing through production equipment, products are shipped to downstream computer computing, consumer electronics, and automotive electronics manufacturers. There were no significant changes in the supply chain or commercial relationships with upstream and downstream manufacturers and customers of our company in 2022.

To implement supply chain management, ASECL not only continuously improves business areas such as semiconductor assembly and testing, and strengthen cooperation with upstream, midstream, and downstream supply chains, but also continuously promotes suppliers and contractors to focus on improving ESG across all aspects. Through regular communication, independent evaluations, management audits, and experience-sharing at management level, we hope to work together with major suppliers and contractors to strengthen partnership relationships, and launch more high-quality products and services to create brighter and sustainable value.



ASE Service Scope



Management of the material topic "Sustainable Supply Chain" at ASECL in 2022

Material topics	Sustainable Supply Chain
Corresponding GRI Index	GRI 204-1 Proportion of spending on local suppliers
SDGs Principle	SDG 12:Sustainable consumption and production
Commitments and Policies	<ul style="list-style-type: none"> • Ensure a stable supply of critical raw materials. • ASECL has obtained the TWAO (Authorized Economic Operator) safety certification and high-quality enterprise certification to ensure that operation and transportation processes comply with safety standards. Through the operation of a high-quality enterprise (AEO), logistics safety and completeness are ensured, thereby providing cargo safety assurance for the global supply chain. • ASE has joined the Responsible Business Alliance (RBA), and adopted the RBA Code of Conduct to enhance social, ethical, and environmental benefits. We look forward to suppliers following the RBA Code of Conduct as well. We also encourage our partners to commit to the Supply Chain Purchasing and Supply Chain Development Policy, closely integrated with the RBA Code of Conduct, and promoting the supply chain to fulfill corporate social responsibility.
Metrics and Targets	<p>Short-term goals:</p> <ul style="list-style-type: none"> • Continuously implement supplier carbon inventory guidance: Greenhouse gas emissions and product carbon footprint, with an estimated two suppliers by 2023. • Incorporate ESG indicators into existing supplier evaluation: Complete the inclusion of ESG indicators (10%) in supplier evaluations by 2023. <p>Medium-term goals:</p> <ul style="list-style-type: none"> • Establish an E-platform for investment control supplier management: Phase-2 to include conflict mineral investigations. • Introduce a high-risk supplier coaching and withdrawal mechanism. • Establish supplier carbon inventory guidance and reduction requirements, and import carbon management indicators related to supply chain negotiations.

Management of the material topic "Sustainable Supply Chain" at ASECL in 2022

Effectiveness Tracking Mechanism

- Supplier ratings: Chung-Li regularly evaluates key suppliers' on-time delivery (OTD), customer required delivery date (CRD), 48-hour ship-out date (SOD), and supplier service quality. Conduct monthly reviews, timely mentor suppliers, and adjust the overall supplier selection strategy to ensure stable delivery of raw materials.
- Work in Process (WIP) tracking: Suppliers are required to upload the current station and quantity of WIP to the supplier's common operation platform (e-hub) to determine whether the order has been produced on schedule. Through the delivery management system, WIP rationality is compared, and abnormal events such as delayed or premature feeding are promptly responded to ensure the timely delivery of raw materials.
- TWAO Annual Review.
- TWAO's annual evaluation of business partners.
- Supplier sustainable management questionnaire surveys and supplier audits.
- Join the Dow Jones Sustainability Indexes (DJSI) evaluation.
- Conduct an annual conflict mineral survey and have third-party units audit our company's conflict mineral survey records.

Actions and Measures

- Coach suppliers with poor performance, moderately reduce the order ratio, and incorporate it into the selection reference for new product instructions (NPI).
- Regularly request suppliers to provide capacity utilization rates and introduction times, and adjust material preparation strategies according to market changes.
- Develop a second source of key raw materials to reduce dependence on a single supplier.
- Put in place a security supply chain business partner risk analysis form.
- Put in place a business partner safety self-assessment form.
- Put in place a business partner supply chain security declaration.
- Suppliers with less than 60 (self-evaluation)/70 (current evaluation) in the questionnaire survey on sustainable management are classified as major risk objects and must initiate on-site audits in the current year to assist manufacturers in improving major risk projects.
- Supplier Quality Engineers (SQE) arrange audit plans for different levels of suppliers at the end of each year. Suppliers who do not obtain an audit score of 70 will be required to propose improvement plans.
- Complete the first phase of the supplier management E-platform: A perpetual questionnaire was imported into the e-platform in 2022 to save time going back and forth via email.
- Provide supplier guidance: Conduct greenhouse gas emissions and product carbon footprint inventory guidance for two companies.

Supply chain management policy

To strengthen the sustainable management of the supply chain, ASECL conducts a survey in accordance with the Code of Conduct of the Responsible Business Alliance (RBA) on the financial status, market competitiveness, technical ability, and quality certification of suppliers by each unit during the introduction phase of new suppliers. Before officially becoming a supplier, they must sign the "Social Responsibility and Code of Conduct Compliance Commitment", fill out the "Supplier Sustainable Operation Management Survey Questionnaire", and sign a "Confidentiality Agreement". After the documents are uploaded to the system for countersigning and review, they can become qualified suppliers. ASECL also conducts annual evaluations and ad-hoc audits on suppliers and contractors. The evaluation team conducts written or on-site evaluations, and includes material suppliers that meet a certain purchase amount in the sustainability risk assessment questionnaire. Based on the annual targets of material supplier audits and high-risk list set by the parent company, ASEH, an audit plan is formulated and the audit team conducts on-site audits.

In 2022, 10 suppliers were audited in writing, with a completion rate of 100%. The audit evaluation results did not identify any significant deficiencies or risks. If the manufacturer has missing process operation data that does not meet the upper and lower limits, or does not define finished product return controls, the supplier must respond to the corrective measures within one month after the audit in accordance with our company's regulations. In addition, in accordance with the ASE Technology Holding CO., Ltd. Corporate Policy for Sourcing Conflict Minerals, non-conflict smelters recognized by third-party audit programs are procured annually to ensure the use of reliable sources of conflict-free minerals in products.

New Supplier Introduction Management Process for ASECL

Management process/procedure for new suppliers	1	Introduced by customers or procurement teams based on requirements.
	2	Cross-departmental evaluations and audits of potential suppliers' financial status, market competitiveness, technical capabilities, quality systems, and service performance.
	3	The evaluation results are countersigned across departments.
	4	The General Manager's Office invites new suppliers for an interview.
	5	After conducting high-level interviews, providing relevant guarantees, and signing relevant legal documents, a supplier code is established in the system and officially introduced as a qualified supplier.

Management Process for Existing Suppliers at ASECL

Management process/procedure for existing suppliers	1	According to the annual requirements of the parent company, ASEH, suppliers are required to conduct a SAQ.
	2	Supplier evaluations are conducted based on questionnaire feedback.
	3	The parent company, ASEH, inspects the risk level of the SAQ.
	4	According to the high-risk list of the group and the number of audit targets, the suppliers that have transactions with Chung-Li are confirmed and relevant departments notified.
	5	The audit results are incorporated into the supplier evaluation reference and improvement is tracked to fill gaps.

Supplier Risk Assessment

To diversify risks and continuously improve overall supply chain quality, ASECL adheres to RBA and encourages partners to commit to the Supply Chain Sustainability Management Policy and System, and includes this policy in necessary supplier procurement management projects. ASECL requires qualified suppliers to sign the "Social Responsibility and Code of Conduct Compliance Commitment", "Non-use Conflict Minerals Declaration", the "Supplier Sustainable Business Management Survey Questionnaire" and the "Confidentiality Agreement" to promise that the products or components they supply, corporate governance, and human rights protection of workers comply with our company's ESG business philosophy. ASECL actively assists and tutors suppliers in implementing improvement plans if they fail to meet our company's requirements, and implements measures to improve employee health and safety, human rights, and corporate social responsibility. It is committed to reducing supply chain risks, and if a violation of regulations is detected, our company may advocate for termination or cancellation of the contract to encourage suppliers and partners to work together to enhance corporate social responsibility.

Environmental risks

75% of main raw material suppliers passed ISO 14001

To reduce the impact of environmental risks, ASECL continues to require main raw material suppliers to obtain the ISO 14001 environmental management system certification. Approximately 75% of the supplier transactions in 2022 underwent the ISO14001 environmental management system certification (of which 100% passed). In addition, ASECL continues to conduct risk identification for suppliers that have not passed validation. After evaluation, it is confirmed that all main raw material suppliers have no significant actual or potential negative environmental impacts.

100% of suppliers signed the "Warranty Letter"

ASECL requires suppliers to sign a "Warranty Letter" to commit to the products or components they supply, including product accessories, packaging materials, and other accessories related to product delivery. If there is a violation of relevant regulations, the contract can be terminated or cancelled to avoid the impact of products on human health and environmental safety. The response rate for new suppliers in 2022 was 100%.

Social risk

100% of suppliers do not use conflict minerals

ASECL requires suppliers not to use conflict minerals to ensure that the minerals used in our company's products, such as tantalum (Ta), tin (Sn), tungsten (W), gold (Au), and cobalt (Co), do not profit armed conflicts. If the supplier uses the aforementioned minerals, the source of the minerals must be disclosed. ASECL cooperates with the group every year to conduct a comprehensive investigation of key suppliers who may use conflict metals. All suppliers are required to provide an annual conflict mineral investigation report, conduct a paper audit, and sign the "Non-Use Conflict Mineral Commitment". In 2022, all suppliers, including new suppliers, responded, and there is no risk of using conflict minerals.

100% of suppliers signed the "Code of Conduct Commitment"

To avoid social risks related to human rights violations in the supply chain, ASECL conducted a social risk and human rights impact assessment on 30 new suppliers of main raw materials in 2022, ensuring that they meet our company's bottom line requirements on labor rights, health and safety, and take effective measures to prevent negative events from occurring, with a response rate of 100%.

Governance risks

100% of main raw material suppliers signed the "Commitment for Cooperative Manufacturers"

All new direct/intermediate material suppliers of ASECL must sign the "Commitment for Cooperative Manufacturers". In 2022, a total of 30 manufacturers signed, and after evaluation and approval, they will be considered qualified suppliers if they meet the standards.

2022 Supplier Risk Assessment Results of ASECL

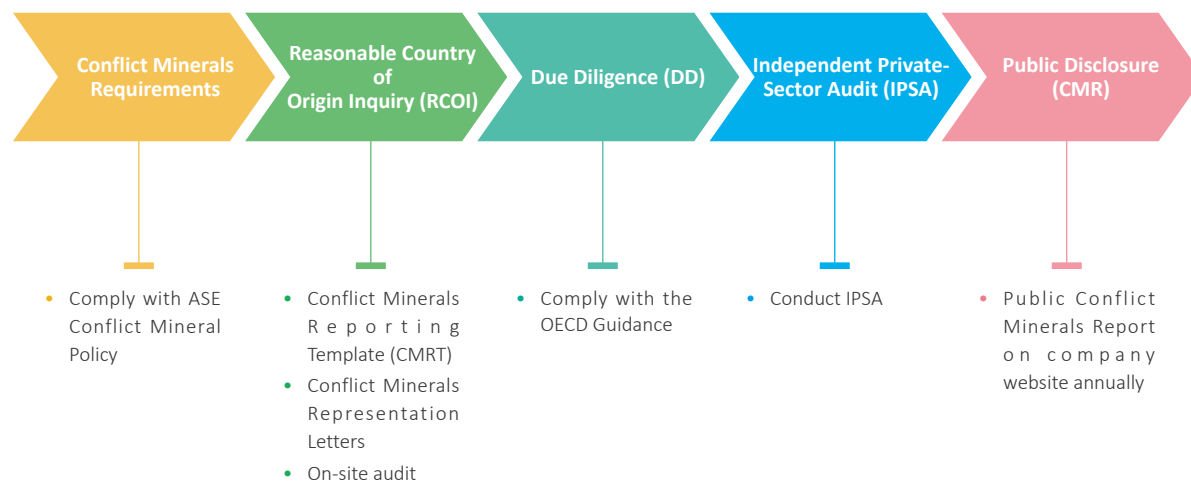
	Material supplier	Factory and waste contractors	Labor outsourcing manufacturers	Service outsourcing manufacturers
Number of manufacturers who should submit the Sustainability Assessment Questionnaire and Supplier Code of Conduct Commitment Letter	39	21	1	3
Number of manufacturers that have signed the Supplier Code of Conduct Commitment Letter	39	21	1	3
Number of material suppliers found to have violated freedom of association and collective bargaining rights	0	0	0	0
Number of material suppliers who have been found to use child or adolescent labor for hazardous operations	0	0	0	0
Number of material suppliers found to have engaged in forced labor	0	0	0	0
Number of appeals filed by manufacturers through the appeal mechanism	0	0	0	0

Supply Chain Evaluation and Audit

Conflict Mineral Management Policy

The ASECL follows the commitment of ASEH on supply chain non-conflict procurement, using only reliable sources of "conflict-free minerals *". We expect suppliers to purchase from non-conflicting smelting or smelting plants recognized through independent third-party audit programs. We also support measures to continue using conflict-free minerals from the Democratic Republic of the Congo or surrounding areas to not affect or reduce "Responsible Mining*" operations in the region. We further conduct independent third-party audits annually to confirm that the conflict minerals declaration report and due diligence procedures comply with the regulations issued by the United States Securities and Exchange Commission (SEC), and publicly disclose the conflict minerals report annually.

Conflict Minerals Management Approach



Results of the Independent Third Party Audit Plan for the Last Three Years at ASECL

Year	2020	2021	2022
Number of Conflict Minerals Surveys	45	76	56
Percentage of qualified suppliers of conflict minerals (%)	100%	100%	100%
Using conflict mineral suppliers	0	0	0

Supplier sustainability survey

ASECL is a member of the Responsible Business Alliance (RBA) and adopts the RBA Code of Conduct to enhance social, ethical, and environmental benefits. Suppliers are also expected to follow the RBA Code of Conduct. We encourage our partners to commit to adhering to the Supply Chain Sustainability Management Policy and System, closely integrated with the RBA Code of Conduct, and promote the joint fulfillment of corporate social responsibility in the supply chain. Every year, ASEH distributes information to various factory areas regarding transaction suppliers, and the ASEH Corporate Sustainability Committee promotes sustainable business investigations.

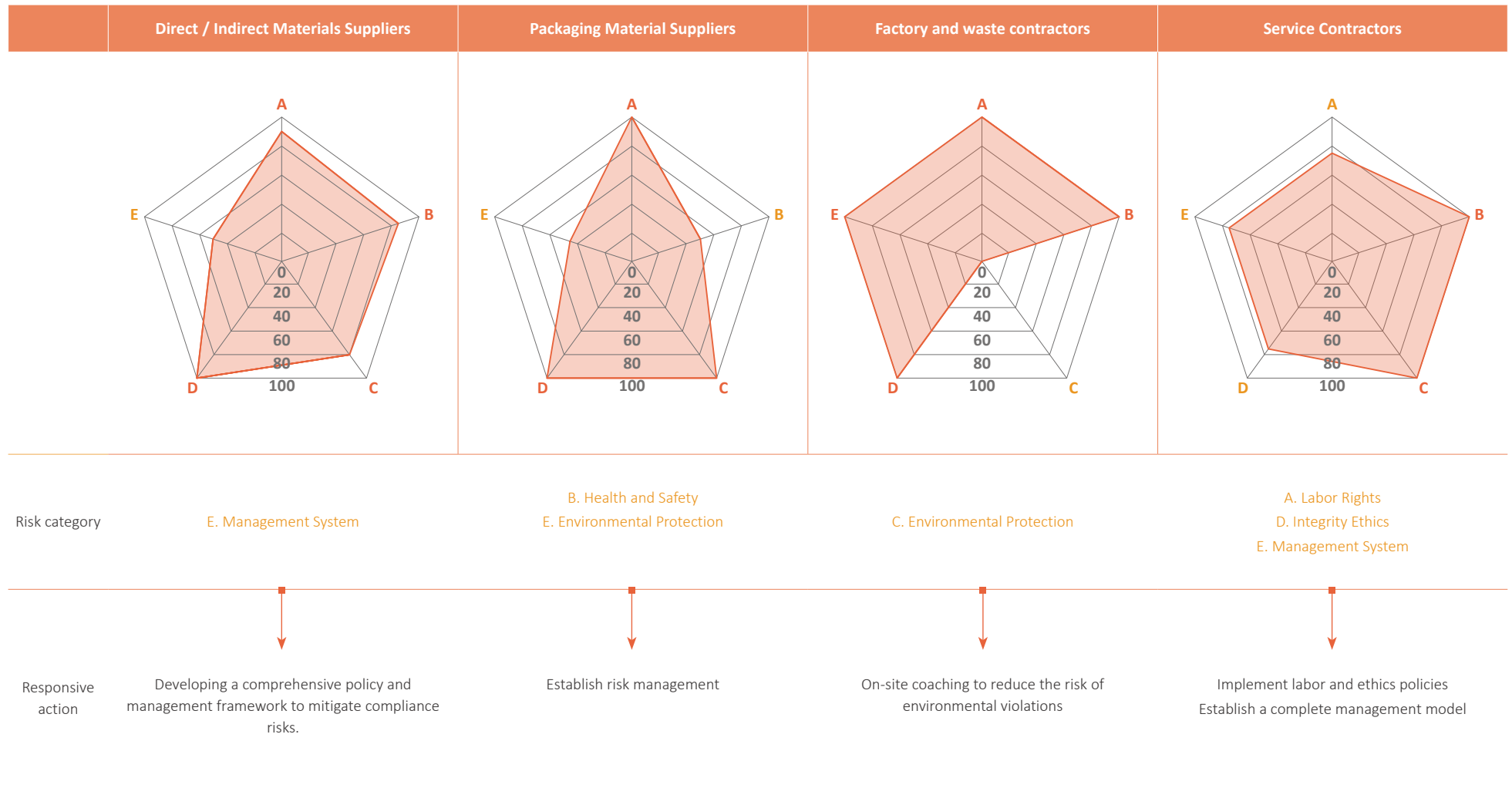
In 2022, 43 surveys on sustainable operations were completed for the sustainability assessment, including 14 suppliers that were due to be audited. The audit was completed for 14 suppliers, with a completion rate of 100%. The audit evaluation results did not reveal any significant deficiencies or risks. Suppliers are required to respond to corrective measures for deficiencies within one month after the audit in accordance with our company's regulations.

Survey Results of Sustainable Operation of ASECL in 2022

Manufacturer category		Number of auditors	Audit method			Number of missing audits		Number of terminated contracts
			Written	On-site	Remote	Improved	Not improved	
Direct Materials Suppliers	New	9	9	0	0	0	0	0
	Existing	5	0	0	5	5	0	0
Indirect Materials Suppliers	New	5	5	0	0	0	0	0
	Existing	4	0	0	4	4	0	0
Packaging Material Suppliers	New	4	4	0	0	0	0	0
	Existing	1	0	0	1	1	0	0
Factory and waste contractors		37	8	29	0	8	0	0
Labor outsourcing manufacturers		1	0	0	1	1	0	0
Service outsourcing manufacturers		3	0	0	3	3	0	0

Number of missing items in category	Direct / Indirect Materials Suppliers	Packaging Material Suppliers	Factory and waste contractors	Service Contractors
A. Labor Rights	2	0	0	1
B. Health and Safety	3	1	0	0
C. Environmental Protection	5	0	37	0
D. Integrity Ethics	0	0	0	1
E. Management System	13	1	0	1

A Labor Rights **B Health and Safety** **C Environmental Protection** **D Integrity Ethics** **E Management System**



Supplier Quality Survey

In addition, our company regularly evaluates suppliers and contractors for quality management. After evaluation, the results are divided into Levels A, B, C, and D. Those who are rated Level D are considered unqualified manufacturers and will require improvement within a specified period of time, otherwise, we will not cooperate with them. We adjust the proportion for supplier evaluation projects based on the significant impact on operations. In 2022, the supplier evaluation projects and proportions of ASECL included quality assurance of 40%, stable delivery time of 20%, price performance of 30%, technical performance of 10%, and service performance of 5%.

Evaluation Results of the Quality of Goods Supplied by ASECL in the Last Three Years

Manufacturers	Grade	2020	2021	2022
Supplier	O level	11	14	27
	A level	33	44	38
	B level	27	14	8
	C level	4	3	2
	D level	0	0	0

Implementation of Quality Audit of Goods Supplied by ASECL in the Last Three Years

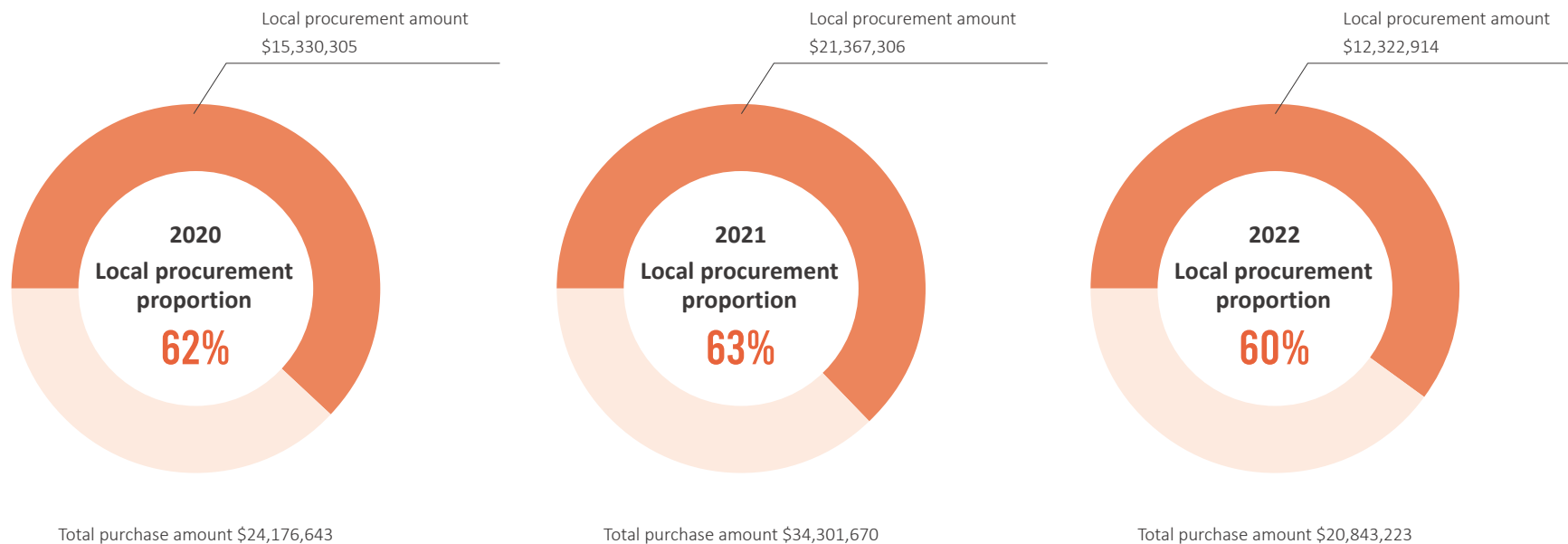
Manufacturer category		Supplier		
Audit method		2020	2021	2022
On-site inspection	Expected number of on-site auditors	19	0	18
	Actual number of completed audits	19	0	18
	Completion rate	100	0	100%
Written audit	Expected number of written auditors	56	75	57
	Actual number of completed audits	56	75	57
	Completion rate	100%	100%	100%

Note: Due to the impact of the epidemic, no on-site audit was conducted in 2021

Sustainable procurement

We also adopt domestic procurement to reduce carbon emissions from long-distance transportation and support domestic commercial development. In 2022, the proportion of local procurement by ASECL in the budget reached over 60%. In addition, for commercial products, priority is given to purchasing domestic first, second, and third categories of environmental protection products, carbon labels, and environmental protection product labels issued by foreign governments or associations. In the past three years, green procurement has reached over 60%.

Local procurement proportion of ASECL in the past three years (Unit: NT\$1,000)



Note: At the end of 2021, due to a major raw material supplier transferring from a domestic to a foreign supply, there was a difference in the local procurement amount in 2022.

Customer Service

Customer satisfaction questionnaire

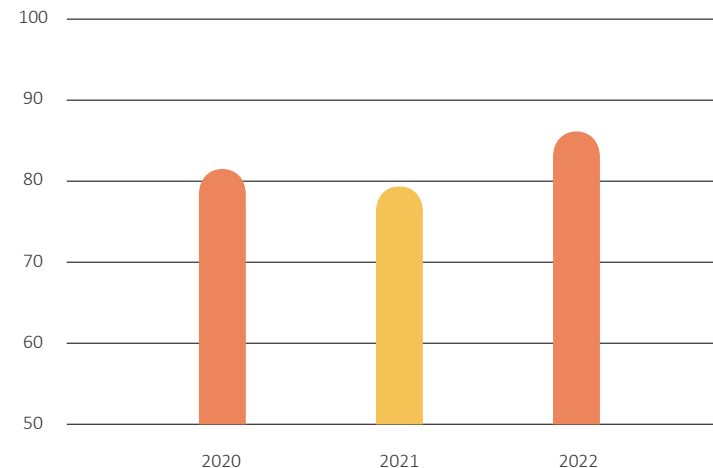
ASECL regards customer feedback as an important foundation for developing refined customer relationships, and we understand customer needs through multiple channels. Based on customer feedback, we regularly review, analyze, and propose appropriate improvement plans on a quarterly basis, and have constructed a complete customer demand response process. In 2022, the customer satisfaction of ASECL was 86.13%, maintaining a level of over 79% for three consecutive years.

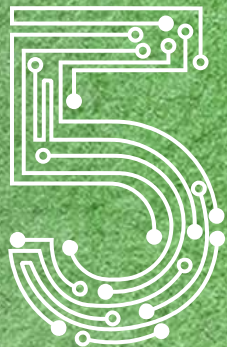
Customer satisfaction improvement: Customer scorecards or questionnaire surveys are used to understand customer ideas and needs, and quantify customer satisfaction with the company's products and services. We actively and passively collect customer opinions and feedback, including on quality, price, delivery time, technology, service and other projects, through continuous evaluation and improvement activities to enhance customer satisfaction and loyalty, and meet customer and company operational goals.

Customer Satisfaction Survey Results of ASECL in the Last Three Years

Year	2020	2021	2022
Number of replies	18	15	21
Recovery rate	36.73%	38.46%	46.67%
Average score of customer satisfaction	81.05	79.32	86.13

Major Customer Satisfaction Mean Value Trend





Environmental Sustainability

"Product Lifecycle Management" Management Status

Climate-Related Financial Disclosures

Energy Management

Greenhouse Gas Emissions

Air Pollution Control

Water Resource Management

Waste Management

Hazardous Substance Management

Noise Management

"Product Lifecycle Management" Management Status

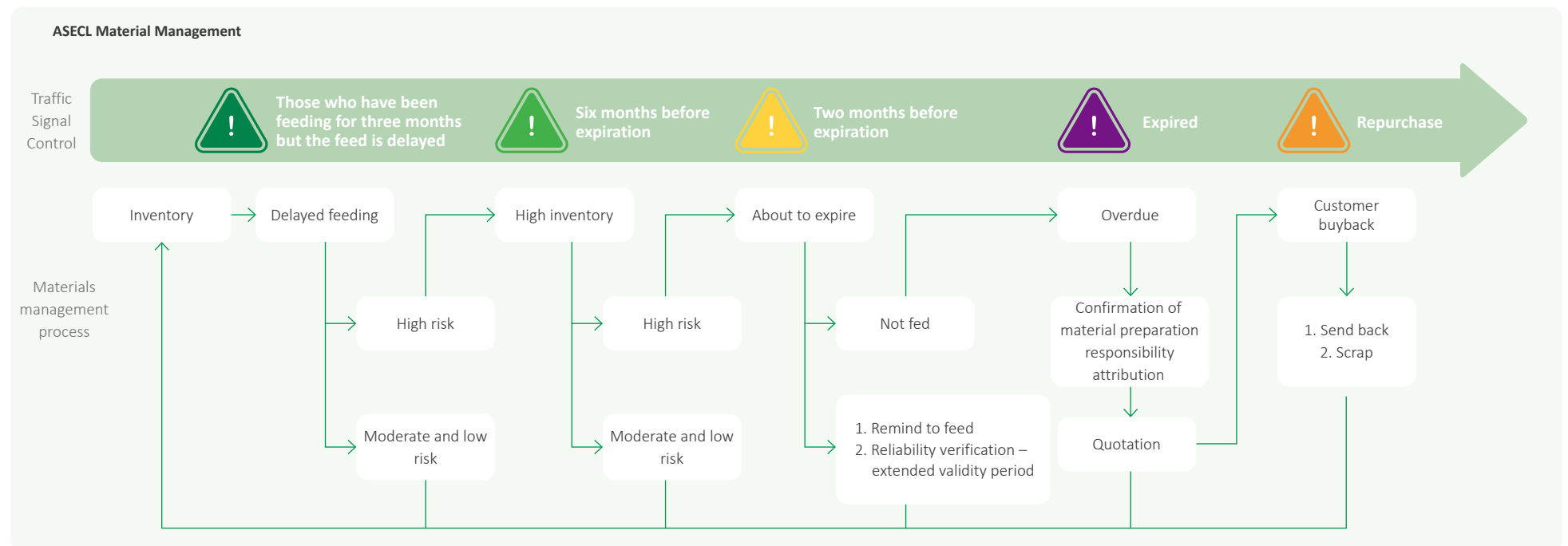
ASECL is a semiconductor assembly and testing plant located in the Chung-Li Industrial Zone. It takes management actions to minimize potential environmental impact during all production processes, continuously prevents and improves pollution, and promises not to let any unqualified operating water flow out of the plant area. We not only import and obtain ISO management system certifications related to the environment, energy, and water resources, but also strive to practice the green building strategy and establish factories that coexist and thrive with the environment, showing our commitment to sustainable development.

Management of the material topic "Product Lifecycle Management" at ASECL in 2022

Material topics	Product Lifecycle Management
Corresponding GRI Index	SASB TC-SC-410a.1、TC-SC-410a.2
SDGs Principle	SDG 12: Responsible consumption and production
Commitments and Policies	<ul style="list-style-type: none"> The use of key raw materials and chemicals in the production process by ASECL 100% comply with the specifications and requirements of the Restriction of Hazardous Substances Directive (RoHS) and Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH). Strictly control the shelf life of materials and minimize stagnant materials.
Metrics and Targets	<p>Short-term goals:</p> <ul style="list-style-type: none"> Key raw materials and packaging materials 100% comply with RoHS and REACH requirements. <p>Medium-term goals:</p> <ul style="list-style-type: none"> Key raw materials and chemicals used in the production process 100% comply with RoHS and REACH requirements. <p>Long-term goals:</p> <ul style="list-style-type: none"> Existing regulatory projects and scope reduction to reduce the burden of products on the environment.
Effectiveness Tracking Mechanism	<ul style="list-style-type: none"> Establish a regular review mechanism for key materials and chemicals to ensure that all materials meet RoHS and REACH requirements. Regularly review the freshness of materials through the material management platform. Hold weekly meetings about high-risk inventory materials, conduct cross analyses of customer needs, and assess the risk of slow-moving materials.
Actions and Measures	<ul style="list-style-type: none"> Establish a regular review mechanism for new key materials and chemicals. A reduction plan should be established for materials that do not meet regulations but must be used to reduce the use of non-compliant materials. Regularly review material compliance and achievement rate on a quarterly basis, with a goal of 100%. Based on the freshness of materials, timely remind customers to feed and choose the most suitable disposal plan for risky materials.

To reduce the negative impact of products on the environment and society, as well as avoid unnecessary costs caused by material waste, ASECL has introduced "Product Lifecycle Management" to audit and control the source of product raw materials. Chung-Li requires that 100% of raw materials used comply with RoHS and REACH specifications, and establishes a regular audit mechanism for key materials and chemicals. The regular audit mechanism includes regularly updating test reports to confirm that the test items meet Chung-Li's requirements. Suppliers are required to provide a declaration of no harmful substances, confirm that they are aware of Chung-Li's hazardous substance requirements, and regularly update the material data sheet for key materials, confirming whether there are any changes to main components and ensuring that materials meet specifications. In 2022, Chung-Li 100% complied with RoHS and REACH specifications for key raw materials used in production processes. In terms of future planning, it is expected that not only key raw materials but also chemicals will be included, and ASECL will continue to expand the scope of control and minimize the burden of products on the environment.

To minimize the use of obsolete materials in products and strictly control the shelf life of materials, ASECL has a built-in slow-moving materials management platform, which regularly reviews inventory materials and holds weekly high-risk inventory material meetings to assess the risk of slow-moving materials by analyzing customer needs.



Climate-Related Financial Disclosures

In recent years, disasters caused by climate change have been frequent. To be proactive in response to climate disasters and prevent related financial losses, ASECL has introduced the climate-related financial disclosure recommendations proposed by the Task Force on Climate Related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB ¹) in 2015, voluntarily disclosing the company's proposed response policies and prevention actions when climate-related risks occur, and appropriately releasing the financial impact. After proper climate adjustment and disaster recovery, we identify opportunities to ensure profitability, enhance our company's climate resilience, and respond to subsequent climate disasters.

Four Core TCFD pillars



Action Plan

- ASECL is convened by the Corporate Sustainability Committee (CSC) to organize relevant ESG team members to regularly and irregularly discuss the potential impact of various issues on the internal and external aspects of the organization, including identifying and assessing climate change risks and responding to climate incidents. After identifying climate-related impacts, meetings with senior executives are held to discuss climate-related risks and opportunities, and improvement suggestions and measures are proposed to mitigate climate financial risks and identify corresponding climate financial opportunities based on potential hazards caused by risks.
- CSC reports annual ESG performance to the General Manager, and ASEH sets and confirms short-, medium-, and long-term goals, including climate change related issues.

ASECL takes into account the potential impact of climate change in its overall operational considerations, estimates the probability and degree of risk occurrence, and develops risk response and mitigation measures and plans. Based on business types, risk strategies, and financial planning status, it identifies physical and transformational risks and opportunities, and simulates potential future climate financial impact through scenarios to plan proactive climate actions, developing a plan for risk response, mitigation measures, and a crisis management mechanism, including actively promoting green energy and environmental protection policies, driving the supply chain to transform into low-carbon manufacturing, expanding the use of renewable energy, and developing innovative technologies for carbon reduction to comprehensively reduce the carbon footprint of enterprise operations, product production, and sales. To respond to the impact of global climate change and the greenhouse effect on the environment, in addition to formulating energy-saving and carbon reduction measures, it also promotes energy-saving management, waste reduction, and implements green procurement in offices and public areas, purchases products with energy-saving and environmental protection labels, and achieves energy-saving and carbon reduction in accordance with government regulations.

Please refer to "Climate Related Risks, Opportunities, and Financial Impact" for the main short-, medium-, and long-term climate-related risks and opportunities of ASECL.

1. Financial Stability Board (FSB)



Risk Management



Metrics and Targets

Action Plan

To identify and evaluate significant impacts or risks related to operations, Chung-Li Branch's CSC regularly cooperates with its parent company, ASEH, to assess climate change risks, understand specific potential financial impact, and provide a basis for policy formulation and goals to establish comprehensive climate management procedures, including steps such as identification, assessment, management, recovery, adaptation, and continuous monitoring.

To reduce the impact of climate change and achieve carbon reduction and energy conservation goals, indicators are used to manage climate change related risks and opportunities:

Achieve 35% carbon reduction by 2030:

- Energy savings and carbon emission reductions: Long-term promotion of energy-saving and carbon reduction measures with a medium- to long-term plan to reduce carbon emission intensity by 10% by 2025 (based on the 2015 carbon reduction benchmark year). The main measures are as follows:
- Response to the Science Based Targets Initiative (SBTi): Using 2016 as the base year, categories 1 and 2 emissions need to be reduced by 35% compared to the base year by 2030. In terms of scope 3, 2020 is set as the benchmark year, requiring a reduction of 15%.
- Electricity consumption: The lighting equipment should use energy-saving and environmentally-friendly products, and the air conditioning and lighting in meeting rooms should be turned off when not in use. During lunch breaks, only necessary lighting is on in the office and public areas, expecting to save 1% of electricity intensity annually in the future. The actual achievement rate for this year is 1.64% compared to 2021.
- Water resources: Promote water conservation, control the water output of public restrooms and wash basins, replace old equipment, and prioritize the use of faucets and toilets with water-saving labels. Annual water intensity is expected to be reduced by 1% in the future, and the savings for this year amount to 9.9% compared to 2021.
- Waste: Promote waste reduction policies. Regulate the use of official documents and paper, and try to use double-sided printing or reverse reuse. The brand of photocopying paper has a pulp green label, which is expected to reduce the intensity of hazardous waste by 1% annually. The achievement rate this year is 11.4% compared to 2021, and the non-hazardous waste recycling rate is 100%.
- Greenhouse gas emissions: Greenhouse gas emissions in 2022 were: Scope 1:2645 tCO₂e, Scope 2:286,579 tCO₂e, and Scope 3:334,635 tCO₂e. Due to the effectiveness of energy-saving policies, compared to carbon emissions of base year 2015, greenhouse gas emissions in 2015 were: Scope 1: 5956.4861 tCO₂e, and Scope 2: 173181.4839 tCO₂e. Scope 1 reduced carbon emission density due to energy conservation. Our company regularly monitors and manages greenhouse gas emissions in categories 1, 2, and 3 (categories 1-6) to establish and plan energy-saving strategies and actions, and advocates for international greenhouse gas emission reduction and global warming issues.

After conducting a risk assessment, ASECL analyzed and listed the impact of climate change on our company's financial condition, as well as the annual adaptation measures, namely "Climate-Related Risks and Financial Impact" and "Climate-Related Opportunities and Financial Impact". Specific climate-related risks and opportunities are shown in the table below:

Climate-Related Risks, Opportunities, and Financial Impact

Climate-Related Risks and Financial Impact

	Climate-Related Risks	Impact Period	Risk Content Description	Potential Financial Impact	Adaptation and Response
Transition Risks	Policies and Regulations				
	Laws and standards for energy-saving products	Long-term	<ul style="list-style-type: none"> According to the 2021 Renewable Energy Regulations for large electricity users, electricity users with a contracted capacity of over 5000kW (kw) are required to provide 10% green electricity within five years. 	<ul style="list-style-type: none"> Increased energy costs 	<ul style="list-style-type: none"> Green electricity was purchased in 2022, meeting the terms of major electricity users in advance.
	Local laws and regulations	Mid-term	<ul style="list-style-type: none"> Taiwan Climate Change Response Act 	<ul style="list-style-type: none"> Carbon price increase Possible fines 	<ul style="list-style-type: none"> Import the ISO 50001 energy management system into the factory to reduce energy consumption.
	Foreign laws and regulations	Mid-term	<ul style="list-style-type: none"> EU Carbon Border Adjustment Mechanism 	<ul style="list-style-type: none"> Increase in overseas costs 	<ul style="list-style-type: none"> Develop and introduce internal carbon pricing into the company, and adjust the CBAM mechanism in a timely manner.
	Market				
	Future demand for low-carbon emission products	Mid-term	<ul style="list-style-type: none"> Not paying timely attention to market demand for low-carbon products and not developing new technologies. 	<ul style="list-style-type: none"> Missing orders and business opportunities Unable to meet customer order requirements 	<ul style="list-style-type: none"> Regularly understand market trends in products related to energy conservation and carbon reduction, and conduct sufficient research on the energy response to market transformation risks.
	Reputation				
	Corporate reputation	Long-term	<ul style="list-style-type: none"> Failure to meet the expectations of shareholders and stakeholders, resulting in damage to the company's reputation. 	<ul style="list-style-type: none"> More cost and time need to be invested in image shaping and remediation, as well as the possibility of decreasing customer orders. 	<ul style="list-style-type: none"> Build green factories and share the company's sustainable achievements externally.

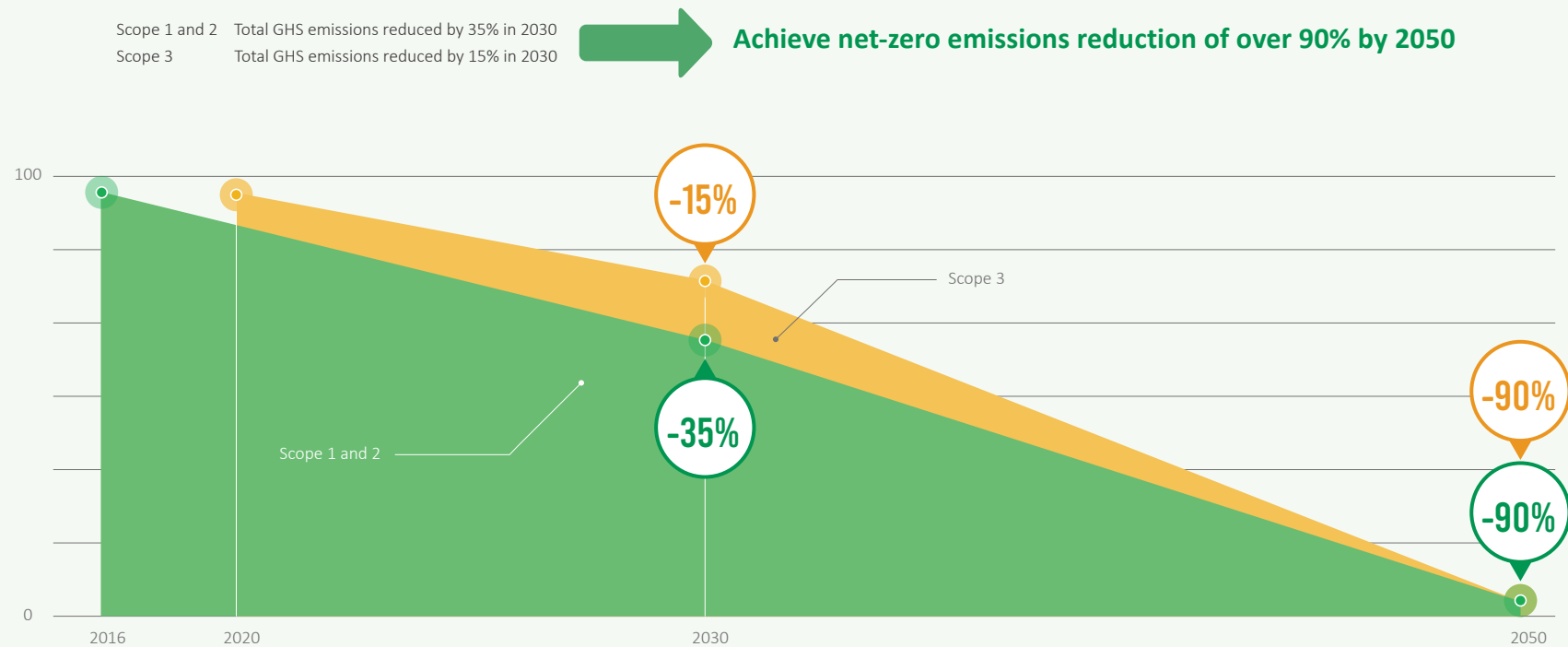
	Climate-Related Risks	Impact Period	Risk Content Description	Potential Financial Impact	Adaptation and Response
Physical Risks	Acute				
	Extreme weather events such as typhoons and floods	Short-term	<ul style="list-style-type: none"> Potential damage to equipment such as machinery, personnel, and factories Personnel attendance rate affected Transportation interruption and cargo loss 	<ul style="list-style-type: none"> Insurance premium budget to be prepared annually Capacity affected Loss of machinery, factory buildings, and personnel 	<ul style="list-style-type: none"> Regularly carry out flood control gate installation drills for low-lying areas every year.
	Long-term				
	Change in rainfall (precipitation) pattern	Mid-term	<ul style="list-style-type: none"> Flooding Droughts 	<ul style="list-style-type: none"> Purchasing water in advance increases manufacturing costs. Purchase sandbags, water pumps, and other equipment. 	<ul style="list-style-type: none"> Establish a process recovery water system to increase the amount of process recovery water. Introduce a water resource efficiency management system to increase water use efficiency.
	Increase in average annual temperature	Long-term	<ul style="list-style-type: none"> Reduce the lifespan of instruments and equipment Air conditioning requires higher cooling intensity 	<ul style="list-style-type: none"> Increase equipment procurement expenses Increase in electricity bills 	<ul style="list-style-type: none"> Intelligent control of air conditioning equipment, and timely adjustment of dust-free room temperature and humidity based on external air temperature.

Climate-Related Opportunities and Financial Impact

Metric Types	Climate-Related Opportunities	Potential Financial Impact	Response
Resource Efficiency	<ul style="list-style-type: none"> Paper and waste recycling Use energy-efficient appliances Reduce water consumption Circular economy Green building Laws and standards for energy-saving products 	<ul style="list-style-type: none"> Reduce the purchase amount of consumables. Reduce electricity consumption and carbon emissions. Reduce water costs. Circular economy makes products more sustainable. Subsidies for purchasing energy-saving appliances. Subsidies for production of energy-saving products. 	<ul style="list-style-type: none"> ASECL continuously introduces and maintains the effectiveness of green factories, and cooperates with the TCFD project to effectively reduce the risks caused by climate change.
Energy Sources	<ul style="list-style-type: none"> Use low-carbon energy Self-produced low-carbon energy and renewable energy projects Adopt energy-saving measures Energy substitution/diversification 	<ul style="list-style-type: none"> Reduce carbon emissions and save carbon reduction costs. Use self-produced green electricity, and excess electricity can be sold. Energy conservation reduces operating costs and expenses. Use diversified energy sources to strengthen energy supply resilience. 	<ul style="list-style-type: none"> Since 2012, the ISO 50001 energy management system has been maintained annually with a power saving rate of at least 1%. Since 2022, contracts have been signed with green power operators and some green power has been transferred to the factory for use.
Products and Services	<ul style="list-style-type: none"> Face the risk of climate change, provide timely feedback on the latest information and improve service quality. Develop or increase low-carbon goods and services, insure risks, and develop climate adaptation solutions. Develop new products and services, and conduct related research and innovation. 	<ul style="list-style-type: none"> Provide diverse services and products that meet market demand, enhancing the company's reputation and visibility. Bring business opportunities for new products or services, and increase revenue. 	<ul style="list-style-type: none"> Actively expand products in different fields such as automotive materials and medical equipment, and integrate sealing and testing industry technology to provide comprehensive services.
Market	<ul style="list-style-type: none"> Develop new markets Enter a new industry Obtain rewards from public sector 	<ul style="list-style-type: none"> Develop new products and expand new markets using green energy technology. Obtaining government public sector rewards and increase company revenue. 	<ul style="list-style-type: none"> In 2022, participated in the Taoyuan City Government's Love for the Earth and Good Fortune for Us event, and won the semiconductor industry championship.
Resilience	<ul style="list-style-type: none"> Integrate climate change risks and management methods to enhance the company's resilience. 	<ul style="list-style-type: none"> Strengthen the resilience of enterprises to climate change risks, reduce losses caused by climate change, and minimize customer losses. 	<ul style="list-style-type: none"> Continuously cooperate with the parent company ASEH to identify operational risks caused by climate change and enhance corporate resilience.

ASECL's Net-Zero Vision and Milestones

To achieve the goal of harmonious and sustainable operations, and deepen the importance of climate change risks in the minds of our employees, Chung-Li follows the plan of its parent company, ASEH, and the Science-Based Target Initiative (SBTi) jointly proposed by the Carbon Disclosure Project (CDP), the UN Global Compact, the World Resources Institute, and the World Wildlife Fund, setting 2016 as the carbon reduction benchmark year to reduce Scope 1 and Scope 2 greenhouse gas emissions. The planned reduction of Scope 1 and Scope 2 is 35% (YoY 2.5%) by 2030. Scope 3 sets 2020 as the base year and plans to reduce emissions by 15% (YoY 1.5%) by 2030. It is expected that 90% of reduction by 2050 can be achieved. It also echoes the Climate Change Response Act passed by the Legislative Yuan on January 10, 2023, announcing that the 2050 net zero emissions target will be included in the national target. The corporate social responsibility of those who uphold the ASE also requires the supply chain to move towards net zero emissions, so that the next generation can have a better living environment.



Energy Management

Management of the material topic "Energy Management" at ASECL in 2022

Material topics	Energy Management
Corresponding GRI Index	GRI 302-1 Energy consumption within the organization GRI 302-2 Energy consumption outside of the organization GRI 302-3 Energy intensity GRI 302-4 Reduction of energy consumption
SDGs Principle	SDG 7: Sustainable Energy
Commitments and Policies	Import training, execution strategies, action planning, and goal management according to the ISO 50001 system, and achieve business commitments by maintaining system validation annually.
Metrics and Targets	Short-term goals: <ul style="list-style-type: none"> 1% annual electricity savings. Medium-term goals: <ul style="list-style-type: none"> Renewable energy purchase contract capacity of 8% by 2025. Long-term goals: <ul style="list-style-type: none"> 2% electricity savings in 2030 compared to the 2025 demand. Compared to 2016, the proportion of renewable energy to account for 42% of total electricity consumption in 2030. The intensity of non-renewable electricity in 2030 will decrease by 15% compared to 2015.
Effectiveness Tracking Mechanism	Based on the ISO 50001 Energy Management System, establish a tracking and recording system for energy consumption within the workplace, externally, and organizationally. Seek cost-effective methods to improve energy efficiency and minimize energy consumption. Conduct annual internal and external audits and timely revise management mechanisms to achieve energy-saving goals.
Actions and Measures	<ul style="list-style-type: none"> The energy-saving ratio achieved by implementing the energy and carbon reduction plan is 1.25%. Renewable energy accounts for 0.7% of total electricity consumption. The intensity of non-renewable electricity decreased by 26% compared to 2015.

ASECL mainly uses electricity as its energy source, divided into two categories: Non-renewable Energy and Renewable Energy.

Non-renewable electricity accounts for 99.3% of total energy use, while renewable energy electricity accounts for 0.7% of total energy use. In 2022, the total energy consumption of ASECL was 21,812,659.24 billion joules (GJ); an annual increase of 3.76%. The main reason for the increase in consumption is the continuous construction of factories in the factory area to meet production capacity requirements. In terms of power usage and distribution within the factory, the factory area accounts for 92% and office electricity accounts for 8%.

However, energy intensity decreased by 1.02% in 2022 compared to 2021, showing a stable decreasing trend over the past three years. The above data fully demonstrates the active commitment of ASECL to energy management.

ASECL's Internal Energy (Scope 1 + Scope 2) Usage

Energy Types		2020	2021	2022
Non-renewable Energy	Purchased non-renewable electricity (GJ)	1,765,487.70	2,102,284.80	2,162,366.60
	Self-generated non-renewable electricity (GJ)	0	0	0
	Liquefied petroleum gas (GJ)	52.97	34.62	37.70
	Liquefied natural gas (GJ)	5,509.78	4,775.74	4,375.97
	Gasoline (GJ)	556.17	404.68	502.52
	Heavy oil (GJ)	0	0	0
	Diesel (only for power generation purposes) (GJ)	20.68	80.40	37.50
	Diesel (not for power generation purposes) (GJ)	1,797.50	1,748.24	1,765.90
	Coal (GJ)	0	0	0
	Steam, heating, cooling, and other outsourced energy sources (GJ)	0	0	0
Total amount (GJ)		1,773,424.80	2,109,328.48	2,169,086.19
Outsourced renewable energy	Procurement of renewable energy vouchers	No	No	Yes
	Solar power generation (GJ)	No	No	0
	Wind power generation (GJ)	No	No	18,899.20
	Hydroelectric Power (GJ)	No	No	0
	Geothermal power generation (GJ)	No	No	0
	Marine Power Generation (GJ)	No	No	0
	Biomass Energy Generation (GJ)	No	No	0
	Biomass Fuel – Biomass Diesel (GJ)	No	No	0
	Biofuel – Bioethanol (ethanol) (GJ)	No	No	0
	Total amount (GJ)	0	0	18,899.20
Total Energy Consumption (GJ)		1,773,424.80	2,109,328.48	2,187,985.39
Energy intensity (GJ/MUSD)		1,448.88	1,091.78	1,073.07

Note 1: The source of the energy conversion coefficient is the Environmental Protection Agency's greenhouse gas emission coefficient management table version 6.0.4.

Note 2: Energy intensity calculation formula: Total energy consumption/annual total revenue.

To reduce the use of non-renewable energy, reduce our factory's carbon emissions, and meet supply chain requirements, ASECL gradually promotes the use of renewable energy. Starting from 2022, it plans to purchase 5,201,280KWH of green electricity and 5,201,280KWH of renewable energy vouchers.



Renewable Energy

Actual purchase of green electricity in 2022:

5,249,772KWH

Contract purchase quantity:

5,201,280KWH



Taiwan Renewable Energy Certificates (T-RECs)

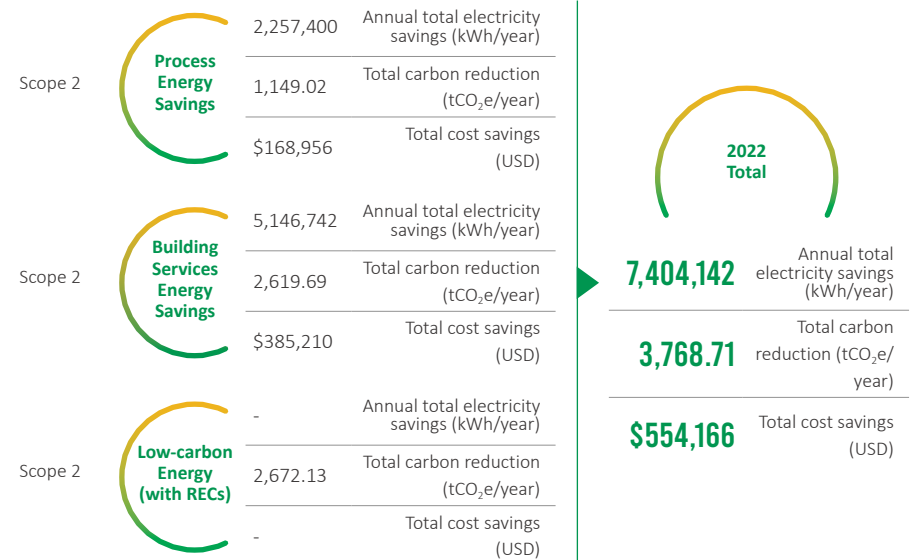
Actual purchase of T-RECs in 2022:

5,249

In fact, ASECL not only purchases low-carbon energy (including vouchers), but also implements process and factory energy conservation, achieving a carbon reduction efficiency of 3,769 tCO₂e, continuously improving energy efficiency in the factory. In addition, it integrates low-carbon green buildings in the factory and plans green products to carry out carbon inventory operations, making Chung-Li more effective in reducing carbon emissions.

In 2022, ASECL introduced a carbon reduction plan to save a total of 7,404,142 KWH of electricity annually, and reduce the total carbon dioxide equivalent of 3769 tons of CO₂e in the factory, contributing to protecting the environment through actual carbon reduction.

Energy-Saving Types and Effects



System Types	Project description	Annual electricity savings (kWh/year)	Annual carbon reduction (tCO ₂ e/year)
Enhanced Performance	Use high-efficiency equipment	2,257,400	1149.02
Air conditioning System	<ul style="list-style-type: none"> Replace low-efficiency equipment Install high-efficiency equipment Use high-efficiency materials 	3,935,106	2002.97
Electric Power System	<ul style="list-style-type: none"> Use high-efficiency LED Install variable frequency drives 	1,211,636	616.72

Green Buildings and Facilities

We believe that the long-term operation and success of a company must rely on the sustainable development of the enterprise and the embodiment of its social responsibility. Therefore, ASECL actively invests relevant funds to build a green technology smart park that covers an area of 62,870 m², with a total floor area of 390,787 m², and combines life, production, and ecology. At present, there are four factories in the production base of Chung-Li, all of which have obtained the EEWH. Among them, the L-B building of Chung-Li completed the Taiwan EEWH-RN certification in 2022, and is currently undergoing the Taiwan Green Building EEWH-RN extension certification for the L-K and L-L buildings in the factory. The goal of our company is to pass green factory certifications in all buildings by 2023 so Chung-Li's factories can combine nature and technology, practice corporate social responsibility, and implement sustainable environmental protection.



Completed the extension certification of the L-B green factory in 2022, and is currently undergoing new certification work for the L-M green factory.



EEWH-RN Certificate for L-B Building





ASECL's Progress Schedule for Obtaining Building Certifications

Certification name	Green Factory		Taiwan EEWH Certifications		Clean Production		U.S. LEED-NC Certifications	
Year/Building	Year	Building	Year	Building	Year	Building	Year	Building
Expected to obtain	2023	Building M			2023	Building M		
Year of first obtaining certificate	2018	Building K, Building L	2020	Gold Grade M Building	2018	Building K, Building L	2012	Gold Grade K and L Building
	2015	Building B	2017	Silver Grade K and L Building	2015	Building B		
	2016	Building A	2017	Diamond Grade B Building	2016	Building A		
			2016	Gold Grade A Building				

Green Products

Following the CDP, the UN Global Compact, the World Resources Institute, and the World Wildlife Fund, ASECL jointly proposed the SBTi and imported the ISO 14067 system for carbon footprint inventory of each product in 2022, continuously reducing carbon emissions in various products in the future with the aim of completing complete carbon footprint certification for BGA, QFP, and QFN in 2023, and carbon footprint certification for FT/CP, BP/WLP, Optical, and Flipchip in 2024. Inventory verification is planned for each product every two years and high-carbon emission product reduced in the future, thereby achieving the net zero target of 2050.

Chung-Li Green Building – Energy Efficiency and Achievements

							
Building A		Building B		Building K, Building L		Building M	
3,293,509	Annual electricity savings (kWh/year)	2,320,427	Annual electricity savings (kWh/year)	478,498	Annual electricity savings (kWh/year)	N/A	Annual electricity savings (kWh/year)
1,752.15	Annual carbon reduction (tCO ₂ e/year)	2,007.03	Annual carbon reduction (tCO ₂ e/year)	254.56	Annual carbon reduction (tCO ₂ e/year)	0.012	Annual carbon reduction (tCO ₂ e/year)
N/A	Annual water savings (t/year)	N/A	Annual water savings (t/year)	3,197	Annual water savings (t/year)	218	Annual water savings (t/year)
\$31,666.67	Total investment cost (USD)	\$63,000.00	Total investment cost (USD)	\$99,000.00	Total investment cost (USD)	\$233,330.33	Total investment cost (USD)
\$246,985.97	Total cost savings (USD)	\$174,012.86	Total cost savings (USD)	\$35,883.40	Total cost savings (USD)	N/A	Total cost savings (USD)

Greenhouse Gas Emissions

Management of the material topic "Greenhouse Gas Emissions" at ASECL in 2022

Material topics	Greenhouse Gas Emissions
Corresponding GRI Index	GRI 305-1 Direct (Scope 1) GHG emissions GRI 305-2 Energy indirect (Scope 2) GHG emissions GRI 305-3 Other indirect (Scope 3) GHG emissions GRI 305-4 GHG emissions intensity GRI 305-5 Reduction of GHG emissions GRI 305-6 Emissions of ozone-depleting substances (ODS) GRI 305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions
SDGs Principle	SDG 13: Climate Action
Commitments and Policies	To respond to climate change, promote mitigation and adaptation measures, continuously increase resource reuse, and reduce greenhouse gas and wastewater emissions, waste generation, and chemical use to improve our ecological benefits and protect the environment.
Metrics and Targets	Short-term goal: <ul style="list-style-type: none"> Annual greenhouse gas inventory Medium-term goals: <ul style="list-style-type: none"> The intensity of greenhouse gas emissions in 2025 to decrease by 10% compared to 2015. Scopes 1+2 greenhouse gas emissions to decrease by 35% by 2030 compared to 2016. Scope 3 greenhouse gas emissions to decrease by 15% compared to 2020 in 2030. Long-term goal: <ul style="list-style-type: none"> Net zero carbon emissions by 2050.
Effectiveness Tracking Mechanism	ISO 14064-1 validation is conducted annually, which includes internal and external audits.
Actions and Measures	<ul style="list-style-type: none"> Greenhouse gas inventory (Scopes 1, 2, and 3) is conducted throughout the entire factory area every year and verified by third parties. The intensity of greenhouse gas emissions decreased by 18% compared to 2015. Scopes 1+2 greenhouse gas emissions increased by 51% in 2022 compared to 2016. Scope 3 greenhouse gas emissions increased by 7% in 2022 compared to 2020. In recent years, due to strong demand for semiconductors, ASE has continued to expand its floors, leading to an increase in electricity consumption and procurement of goods, as well as an increase in greenhouse gas emissions year by year. However, ASE has saved over 19,000 tons of CO₂e through energy-saving measures such as process changes or switching to frequency conversion equipment from 2019 to 2022, and will continue to respond to the world trend of net zero emissions in the future.

Since 2012, in accordance with the GHG Protocol and the methodology of the international standard ISO 14064-1, greenhouse gas inventory has been conducted annually with ASECL as the scope boundary, and qualified third-party inspection institutions have been entrusted to conduct Scope 1, 2, and 3 greenhouse gas emission verifications. The latest validity period of the certificate is the end of March 2024, and we will continue to obtain this standard certificate to ensure that ASECL meets international carbon reduction standards.

In 2022, the greenhouse gas emissions of ASECL were as follows: Scope 1 emissions were 2,645 tCO₂e; Scope 2 emissions were 294,684 tCO₂e; Scope 3 emissions were 334,659 tCO₂e, totaling 631,989 tCO₂e. Scope 1 emissions decreased by 14% annually, mainly due to a decrease in fugitive Emission factors; the portion of purchased energy (mainly electricity) increased by 5% compared to the previous year. Scope 3 decreased by 8% year-on-year compared to the previous year. The increase in electricity is due to strong demand for semiconductors and the continuous expansion of ASE, resulting in an increase in electricity consumption and procurement of goods. Overall, greenhouse gas emissions in 2022 decreased by 2% compared to 2021, and greenhouse gas emission intensity in 2022 decreased by 18% compared to 2015. Compared to the 10% reduction target set, it is 8% higher. In the future, ASE will continue to move towards the goal of net zero emissions.

In addition, starting from 2023, we will introduce the concept the product lifecycle and conduct greenhouse gas emission footprints surveys on three products, the QFN, QFP, and BGA, in accordance with the requirements of the ISO14067 carbon footprint standard. Whether operational management or product manufacturing, ASECL demonstrates its determination to reduce carbon emissions through disclosure.

ASECL's Greenhouse Gas Emissions and the Past Three Years (Unit: Metric tons of CO₂e)

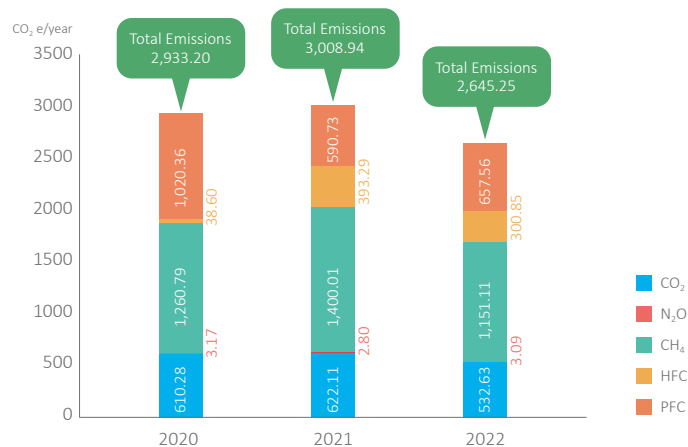
Total emissions (based on greenhouse gas Emission factors)		2020	2021	2022
Scope 1	Liquefied Natural Gas (LNG)	275.07	238.43	218.58
	Motor gasoline	40.14	29.39	36.30
	Diesel	136.81	137.55	135.80
	Liquefied Petroleum Gas (LPG)	3.35	2.19	2.38
	Volatile organic compounds (VOCs)	80.01	117.07	43.60
	Acetylene (C ₂ H ₂)	0.06	0.06	0.04
	Carbon dioxide (CO ₂)	78.56	100.73	99.58
	Carbon tetrafluoride (CF ₄)	1,020.54	590.84	657.66
	Methane (CH ₄)	1,260.07	1,399.41	1,150.46
	R507A(Refrigerant)	35.87	259.03	NA
	R134A(Refrigerant)	2.73	NA	279.76
	R508B(Refrigerant)	NA	3.37	5.32
	R404A(Refrigerant)	NA	130.89	3.55
	R407C(Refrigerant)	NA	NA	12.21
	Total Scope 1 Emissions	2,933.20	1,609.53	2,645.24
Scope 2	Electricity	249,620.35	279,655.30	286,579.27
	Total Scope 2 Emissions	249,620.35	279,655.30	294,684.54

Total emissions (based on greenhouse gas Emission factors)		2020	2021	2022
Scope 3	Employee commuting	3,075.35	2,878.30	3,429.79
	Business travel	21.45	6.97	9.42
	Purchased goods and services	17,4955.50	230,304.24	240,919.58
	Capital good (Machines, tools and equipment)	63,187.85	70,118.95	29,666.28
	Upstream Fuel- and energy-related activities (activities not included in Scope 1 or 2)	53,573.09	51,522.80	51,171.39
	Upstream transportation and distribution	14,990.36	8,595.88	8,308.24
	Waste generated in operations	1,443.94	1,615.21	1,028.47
	Upstream leased assets	39.79	39.24	38.56
	Downstream Downstream transportation and distribution	91.79	126.20	63.48
	Total Scope 3 Emissions	311,379.11	365,207.80	334,635.21
Total Greenhouse Gas Emissions		563,932.66	646,472.62	623,859.72
Carbon emissions intensity (tCO ₂ e / MUSD)		460.73	334.61	305.96

Note: According to greenhouse gas inventory data, rounded to the second decimal place:

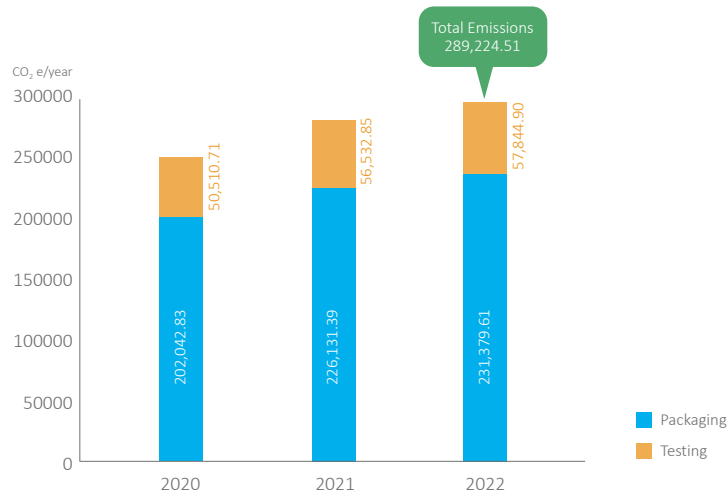
1. The formula for calculating carbon emission intensity is: Total greenhouse gas emissions (metric tons of CO₂e)/revenue.
2. The source of energy conversion coefficient is the Environmental Protection Agency's greenhouse gas emission coefficient management table version 6.0.4.
3. The method of aggregating greenhouse gas emissions provides greenhouse gas data for each factory and window.
4. The Global Warming Potential (GWP) of various greenhouse gases is estimated using the IPCC Fifth Assessment Report in 2020 and 2021, and the IPCC Sixth Assessment Report in 2022.
5. The carbon emission coefficient of electricity in 2020 was 0.509 kg CO₂e/kWh; the carbon emission coefficient of electricity in 2021 is 0.502 kg CO₂e/kWh; and the carbon emission coefficient of electricity in 2022 is taken as 0.495 kg CO₂e/kWh.
6. The benchmark year for greenhouse gas emissions is 2015, mainly due to the slight impact of the financial tsunami on production and operations that year. In line with the group's sustainable development policy goals, 2015 is set as the benchmark year. The greenhouse gas carbon emissions for that year were 179,138 metric tons of CO₂e.
7. Uncertainty and source description of Scope 1 and 2: Monthly electricity bills are calculated as annual electricity consumption and corrected to 1/1~12/31 of electricity consumption based on the coverage day ratio. Section 3.3.1 of the Technical Specification for the Verification and Inspection of Electric Meters (CNMV 46, 2nd Edition) of the National Bureau of Standards and Inspection states that due to the inability to determine the accuracy level of an electric meter (watt hour meter) based on its appearance, it is conservatively determined to be '0.5 level', with a power factor of 0.5 and a verification tolerance of 0.5%. The uncertainty of this data is calculated by multiplying it by the expansion coefficient of 2. Data quality analysis positive and negative 7.1% (upper and lower limits of 95% confidence interval).

Scope 1 Greenhouse Gas Emissions by Type (Metric tons of CO₂e/year)



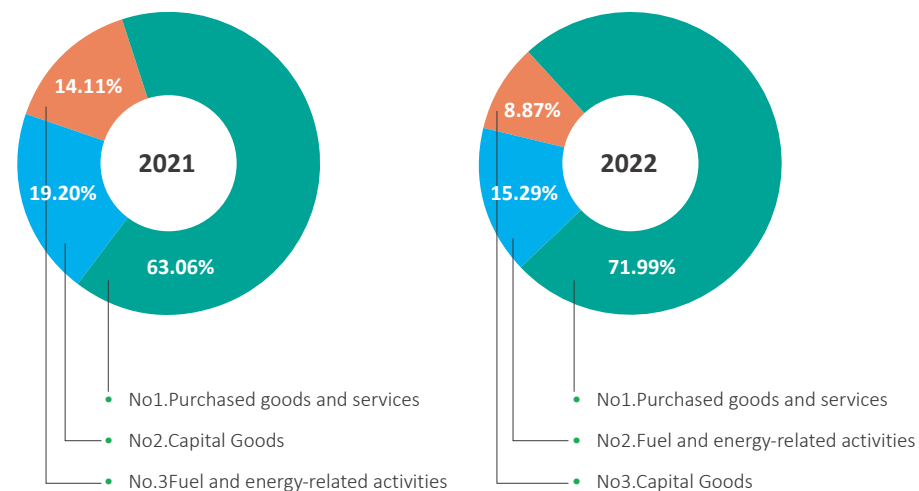
Note: According to greenhouse gas inventory data, rounded to the second decimal place.

Scope 1 and 2 Greenhouse Gas Emissions (Metric tons of CO₂ e/year)



Note: According to greenhouse gas inventory data, rounded to the second decimal place.

Scope 3 – Top Three Emission Factors



Explanation for the changes in the top three Emission factors in Scope 3 compared to the previous year:
No significant change as goods and services are purchased in bulk, while the purchase of capital goods (mechanical equipment) in 2022 decreased.

Reduction Plan

Type	Please explain the current situation and management measures	Reduction plan	Cost required to drive reduction
Scope 1	None	Only accounting for 0.4% of overall carbon emissions, therefore Scope 2 reduction is the main focus	None
PFCs	Cooperate with national policies	Cooperate with national policies	Cooperate with national policies

Air Pollution Control

To reduce air pollutant emissions and comply with the Air Pollution Control Act in Taiwan, ASECL adopts source classification for air pollution prevention and effective treatment of volatile organic compounds and acid/alkaline gases, which are the main air pollutants, to ensure that the content of pollutants discharged into the atmosphere complies with Taiwan's Air Pollution Control and Emissions Standards for the Semiconductor Industry and Standards for Air Pollutant Emission from Stationary Pollution Sources.

The air pollution sources generated by ASECL include VOCs, acid/alkaline gases, SOx, and NOx. Based on different process characteristics and waste gas types, we adopt different treatment technologies and equipment, such as washing towers, zeolite runners, and RTO, to effectively treat pollutants, ensuring that the content of pollutants discharged into the atmosphere meets or is even superior to government regulations.

In 2022, the emission intensity of VOCs from ASECL was 67.3350 tons/million US dollars, gradually moving towards the source to reduce the burden of end treatment. In combination with current management methods, engineering improvements, education and training, and regular third-party testing, future strategies will be reconsidered to control the emission of VOCs, including:

- 1. Strengthen source management:** Develop new environmentally-friendly materials or substitutes with low pollution and emissions.
- 2. Process optimization:** Shorten repetitive process operations, reduce the use of raw materials, and decrease end emissions.
- 3. Pollution tracking:** Establish and improve pollution tracking mechanisms and controls, promptly alert in the event of air quality abnormalities, and conduct traceability analysis.

Emissions of Air Pollutants and Major Gases from ASECL in the Past Three Years (Metric tons) (The unit of ozone depleting substances is metric ton CFC-11 equivalent)

	2020	2021	2022	Prescribed emission standards (semiconductor manufacturing industry air pollution control and emission standards/standards for air pollutant emission from stationary pollution sources)
NOx	5.29	4.43	4.43	650
SOx	3.67	3.07	3.07	500
VOCs	2.10	3.47	6.26	15.77
PM	2.26	3.44	3.60	無

Note:

1. The emission coefficients of ozone depleting substances (ODS) are referenced from the Montreal Protocol Annex.
2. The standard emission standards for NOx and SOx are in ppm.
3. The increase in VOCs in 2022 is due to the increase in production capacity.

Water Resource Management

Management of the material topic "Water Source Management" at ASECL in 2022

Material topics	Water Resource Management
Corresponding GRI Index	GRI 303-1 Interactions with water as a shared resource GRI 303-2 Management of water discharge-related impacts GRI 303-3 Water withdrawal GRI 303-4 Water discharge GRI 303-5 Water consumption
SDGs Principle	SDG 6: Clean Water and Sanitation
Commitments and Policies	Water intake intensity in 2025 will decrease by 15% compared to 2015.
Metrics and Targets	Short-term goal: <ul style="list-style-type: none"> Increase the process recovery rate by 87% to reduce water consumption by 10%. Medium-term goal: Expand the process recovery system, increase the recyclable amount, and achieve an increase in the recovery rate. The recyclable rate will increased to 89% to reduce water consumption by 24%. Long term goal: <ul style="list-style-type: none"> Increase recycled water volume and reduce water consumption by 40% by recycling available water sources three times.
Effectiveness Tracking Mechanism	Control and adjust the system's recycling status daily to effectively reduce water consumption.
Actions and Measures	<ul style="list-style-type: none"> Mitigation and prevention measures: Ensure system maintenance and avoid abnormal recovery systems that may affect recovery rate. Remedial and corrective measures: Extract well water to replenish water consumption. Related management measures and their performance: Reliable personnel inspections to respond promptly and ensure system stability. The recovery rate reached 84% in 2020, and will increase to 85% in 2022 to reduce water consumption.

Semiconductor manufacturing is one of the industries that highly relies on water resources. From raw materials to products, whether grinding, cutting, electroplating, cleaning, or related public equipment, water resources must be well utilized. The water resources used in ASECL are mainly tap water, which is supplied through a pure water system for consumption, and wastewater generated during processes, which is treated and discharged. In terms of local water resource risks, according to the Aqueduct Water Risk Atlas of the World Resources Institute, the risk level of Zongli District (Taoyuan) where ASECL is located is "medium to low", indicating that there is no clear water resource related risk in the district, and from a historical perspective, ASECL has not experienced any operational impact or financial loss caused by water shortages.

However, from the perspective of sustainable development, the impact of ASECL on water related issues in 2022 is the large amount of tap water usage, which may affect or cause water shortages in people's livelihoods or other industries. To alleviate the aforementioned impact, ASECL has not only imported and obtained the ISO 46001 Water Efficiency Management System certification in water resource management, but also made efforts towards diversified water resources:

1. We actively cooperate with the government in developing policies for the reuse of recycled water, and through action plans such as "Process Recycling" and "Wastewater Systems", we minimize water impact and ensure that wastewater generated during operations complies with the Water Pollution Control Act and local discharge standards. We regularly appoint qualified manufacturers to conduct wastewater testing operations. Chung-Li also controls operating locations without emission limits according to the limits announced in the discharge standard announcement.
2. In terms of formulating water quality standards and guidelines, ASECL internally sets strict standards for discharge water; control is 0.8 times the minimum limit.
3. In terms of wastewater generated during operations, ASECL also has a mechanism for recycling and reusing wastewater after processing.

Through the above efforts, ASECL has not experienced any incidents of discharge exceeding emission limits or environmental pollution in 2022, and will continue to maintain this standard in the future, making specific contributions to sustainability and water resource development.

Water Withdrawal

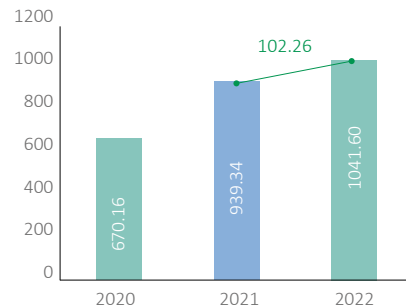
ASECL's Total Water Withdrawals in the Past Three Years (Unit: Million liters)



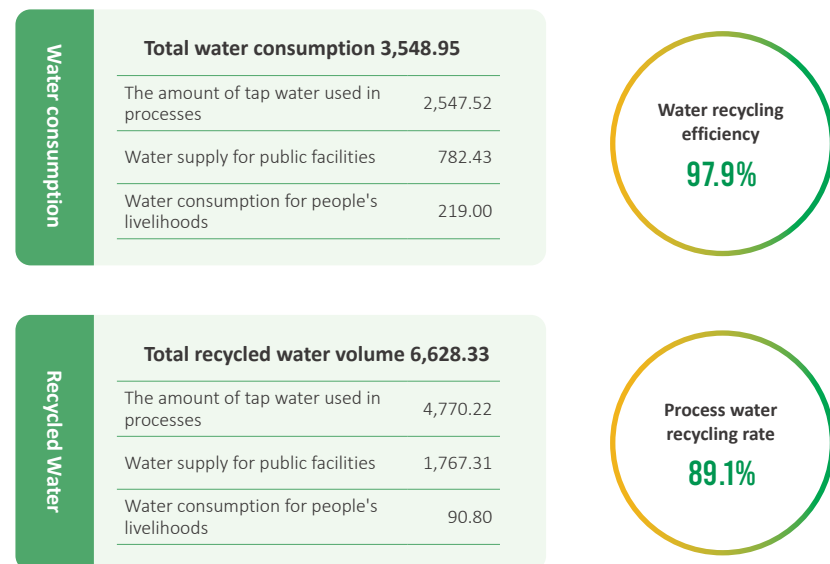
1. Due to the addition of a water recovery system, total water consumption has decreased.
2. Due to floor expansion and water allocation issues last year, water source allocation was completed in Q3 2022, reducing well water extraction, resulting in a decrease of 30.1%.
3. Due to the decrease in well water consumption, the amount of tap water extracted has increased.

Water Consumption

ASECL's Total Water Consumption in the Past Three Years (Unit: Million liters)

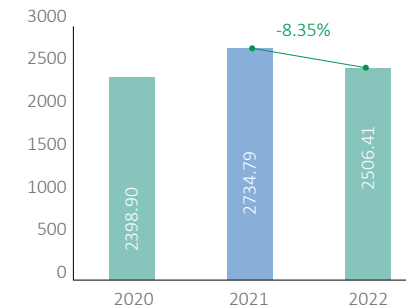


ASECL 2022 Water Resource Utilization and Recycling Situation (Unit: Million liters)



Water Discharge

ASECL's Total Water Discharge in the Past Three Years (Unit: Million liters)



ASECL 2022 Discharge Water Quality in Each Plant Area

Item	Local discharge standard (mg/l)	Concentration (mg/l)	Test method	Test frequency
pH Scale	6~9	7.4	Outsourcing	Season/time
Biochemical Oxygen Demand (BOD)	30	6.1	Outsourcing	Season/time
Chemical Oxygen Demand (COD)	100	30.4	Outsourcing	Season/time
Suspended Solids (SS)	30	9.9	Outsourcing	Season/time

Note:

- The above discharge amounts are based on water meter values.
- After being treated by the wastewater treatment system, wastewater from the Chung-Li factory area is much lower than discharge water standards.
- The Chung-Li area meets discharge water standards after being treated by the industrial zone's pipeline before being discharged into the bearing water body.
- The water quality data in the above table was analyzed by qualified inspection companies using water samples from the factory area.

Waste Management

Management of the material topic "Waste Management" at ASECL in 2022

Material topics	Waste Management
Corresponding GRI Index	GRI 306-1 Waste generation and significant waste-related impacts GRI 306-2 Management of significant waste-related impacts GRI 306-3 Waste generated GRI 306-4 Waste diverted from disposal GRI 306-5 Waste directed to disposal
SDGs Principle	SDG 7: Affordable and Clean Energy (Incineration power) SDG 11: Sustainable Cities and Communities (Using pressure film adhesive to make elementary school floor tiles) SDG 17: Partnerships for the goals (Recycling of recycled wafer packaging materials for OPTOTECH, Platinum Optics, and testar)
Commitments and Policies	Commitment to the environment and society, promoting the three major management principles of waste, i.e., reduction, reuse, and recycling, and extending their service life, continuously promoting the implementation of circular economy projects and green cooperation, and achieving a shared economy with society and the environment.
Metrics and Targets	Short-term goals: <ul style="list-style-type: none"> 90% non-hazardous waste recycling rate by 2023. Medium-term goals: <ul style="list-style-type: none"> 95% non-hazardous waste recycling rate by 2025. The total amount of hazardous waste disposal in 2025 to decrease by 10% compared to 2022, and non-hazardous waste disposal by 20%. Long-term goals: <ul style="list-style-type: none"> The recycling rate of hazardous waste to reach 60% by 2023, and non-hazardous waste to reach 100%. Collaborate with communities to establish a friendly environment, such as by remanufacturing bin bags.
Effectiveness Tracking Mechanism	On-site audits, evaluations, and waste manufacturer audit scoring table at least once a year.
Actions and Measures	<ul style="list-style-type: none"> Convert previously incinerated waste plastic mixture into the production of SRF auxiliary fuel to generate biomass energy, gradually evaluate the introduction of plastic granulation, recycle the product into raw materials for reuse, and reduce environmental pollution caused by toxic substances such as dioxins. In 2022, a total of 32 on-site factory visits and evaluations were conducted, with a total of 29 companies qualifying (three did not qualify); a qualification rate of 90.6%.

The types of waste generated by ASECL's business include sludge, waste solvents, wiping cloths, filter cartridges, waste containers (plastic/glass), molding compounds, waste plastics, medical waste, and waste materials, etc. If waste is not properly cleaned up, it not only impacts business operations, but also the environment. The copper content of waste sludge generated by ASECL's operation may cause pollution to the soil and other environments, and wastewater generated also has a high copper content. However, due to the low concentration, it cannot be collected and refined into precious metal so can only be disposed of through solidification.



There are two aspects involved in waste management: optimizing waste recycling and tracking and controlling manufacturers. In terms of optimizing waste recycling, ASECL adopts the concept of the life cycle to reduce waste at the source, recycled materials, and other related circular economy measures. In addition to effectively promoting waste management in its own operations/production processes, ASECL also requires suppliers to set waste reduction and recycling goals to achieve the goal of minimizing waste output in the overall value chain, working with suppliers to promote energy conservation, waste reduction, and the circular economy. The specific method is as follows:

1. By introducing lead-free processes, raw materials are fully converted to green products.
2. Ask suppliers to recycle and reuse wafer packaging materials.
3. Ask customers to recycle and reuse wafer packaging materials.
4. Foam paper and other cushioning materials are recycled in the factory warehouse.

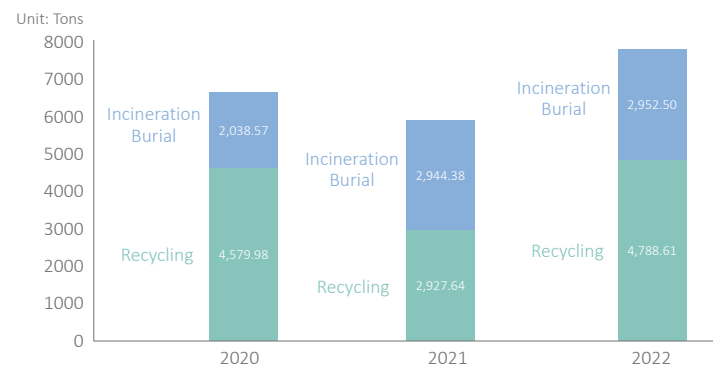
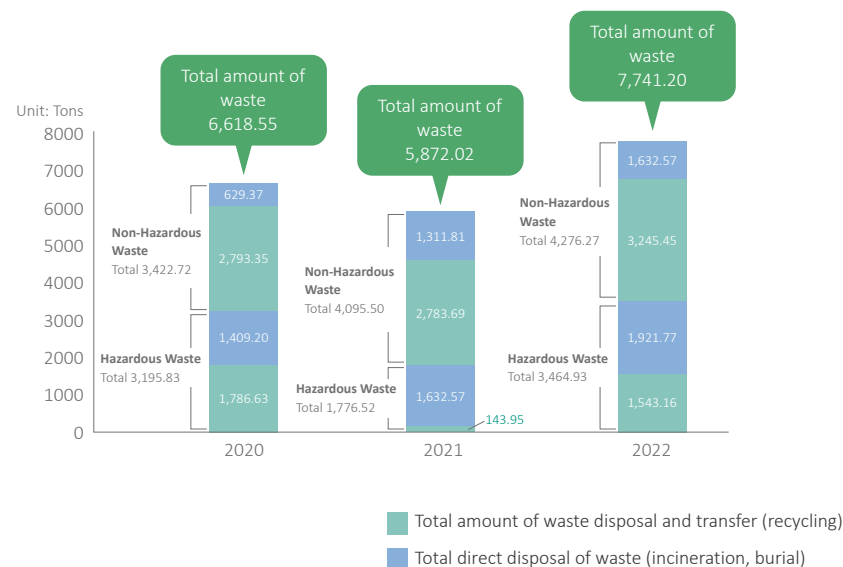
5. Use the waste packaging material iron box as a container for the alcohol spray machine in the factory.
6. Convert waste plastic into plastic particles at the recycling plant.

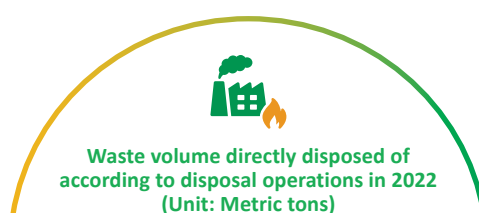
In terms of manufacturer tracking and control, the main focus is on controlling Chung-Li's waste treatment partners. According to the law, ASECL entrusts qualified domestic manufacturers to carry out waste clearance and disposal. To accurately grasp the flow of waste and ensure that all waste is legally and properly treated or reused, ASECL carefully selects waste clearance and disposal manufacturers, regularly visits the manufacturer to review and compare the actual waste treatment and reuse situation in the factory area, and strengthens the audit efficiency of manufacturers, which includes requiring waste collectors to have GPS tracking and management, and scheduling annual on-site audits for manufacturers who handle hazardous waste and regular cleaning waste to reduce the negative impact of operational waste on the environment.

ASECL's Management of Waste Treatment Manufacturers in the Past Three Years

Year	2020	2021	2022
 Regular online/ paper audits	12	12	12
 Regular on-site audits	33	18	43

Waste Disposed by ASE according to the Disposition Operation in 2022 (Unit: Tons)





	Disposition Operation	On-Site	Departure	Total amount	Disposition Operation	On-Site	Departure	Total amount
Hazardous Waste	Reuse	0	9.29	9.29	Incineration (including energy recovery)	0	724.66	724.66
	Recovery	0	1,533.87	1,533.87	Incineration (excluding energy recovery)	0	0.90	0.90
	Other recycling operations	0	0	0	Other placed operations	0	1,196.21	1,196.21
	Total amount	0	1,543.16	1,543.16	Total amount	0	1,921.77	1,921.77
Non-Hazardous Waste	Reuse	0	718.50	718.50	Incineration (including energy recovery)	0	1,030.73	1,030.73
	Recovery	0	2,527.04	2,527.04				
	Other recycling operations	0	0	0	Total amount	0	2,527.04	2,527.04
	Total amount	0	3,245.54	3,245.54				

1. Preparation for reuse: Through inspection, cleaning, or maintenance, the products or components that were originally intended to become waste are reused for the same purpose as the original.
2. Recycling: Products or components that would otherwise become waste are reprocessed to manufacture new materials.
3. On-site: self dispose of waste; Departure: Waste is outsourced for disposal.

1. Incineration: Controlled combustion of waste at a high temperature.
2. Burial: The final disposal site for solid waste placed underground or above the ground, as designed by engineers.
3. On-site: Self-disposal of waste. Departure: Waste is outsourced for disposal.

The Circular Economy

Circular Economy Project and Benefits of Non-Hazardous Waste

Project	Low-carbon transportation	Reuse of packaging materials	Low-carbon transportation
Application Type	Outsourced for processing for reuse in other industries	Outsourced for processing for reuse in factory	Outsourced for processing for reuse in other industries
Project Name	Incineration and reuse of pressure film adhesive	Reuse of wafer packaging materials	Remanufactured refractory bricks from waste ceramics
Partner	Reuse plant	Supplier	Reuse plant
Total investment cost	USD 208949.76	0	USD 8268.14
Total weight of resource materials	949.35 tons	53.46 tons	31.76 tons

Hazardous Substance Management

Too effectively manage hazardous substances in all of its products, minimize environmental and ecological impact, fulfill corporate social responsibility, and comply with international regulations and stakeholder expectations, Chung-Li Factory regularly reviews the management status of hazardous substances and updates relevant management regulations in accordance with international regulations, customer requirements, group requirements, and environmental trends. In 2022, Chung-Li increased the number of key raw material control substances from 53 to 80, and the number of packaging material control projects from 23 to 39.

Key raw materials provide customer safety and comply with regulatory requirements. ASECL has established a management mechanism for product health and safety, as well as green products. From R&D to the production process, compliance with the hazardous substance management requirements of Chung-Li Factory, such as RoHS, SVHC, TSCA, Sony GP, etc. is required. Chung-Li regularly requests suppliers to provide declaration forms, substance data sheets, and relevant test reports for review. Relevant chemicals and tools used in the process are evaluated for compliance with regulatory requirements, such as RoHS. Products and key raw materials from different groups are regularly sent to laboratories that comply with ISO 17025 every year, and relevant substance testing reports are obtained to determine whether they meet internal management requirements.

In accordance with the Commitment to Healthy, Safe, and Sustainable Products and Risk/Hazard Assessment Management of Chemical Substances in Products, ASECL suggests and reveals indicators to examine the amount of hazardous substances used and the reduction of hazardous substances as below:

- Identify the amount of a health hazardous substance or the amount of a substance that is a CMR.
- The quantity and compliance of the restricted substance regulations/list that the product complies with.
- Coverage rate of safety products certified by third parties.
- The quantity or coverage rate of products with complete hazard assessment of components.
- The number of chemical substances (or products) that have been developed for alternative chemical strategies.
- Invest in research and development to replace material costs, and the quantity of products that reduce hazards.

In terms of harmful substance management achievements, ASECL complies with the requirements of its parent company, ASEH, and will not use high-risk chemicals or harmful substances after December 31, 2026. The specific management methods and information are shown in the table below:

Hazardous Substance	Regulations or customer requirements	Is there stricter control over hazardous substances compared to statutory regulations?	What is the target value?	Expected completion year	What is the current situation?	How should it be managed?
No	No	No	No	No	No	No
High-risk chemicals	Regulations or customer requirements	Is there stricter control over hazardous substances compared to statutory regulations?	What is the target value?	Expected completion year	What is the current situation?	How should it be managed?
(n-methyl-2-pyrrolidone, NMP)	Company policy requirements	Yes	No new ones, existing ones with a 100% replacement rate	This chemical existing used ones will be phased out by July 1, 2021, and existing used ones will be phased out by December 31, 2026.	Some operational materials contain this component, a project is established to replace the plan, and progress is tracked quarterly.	Incorporate this component into the change system for source import audit, and track and evaluate existing materials containing this component.

Noise Management

To avoid noise affecting the surrounding environment of the plant, ASECL has formulated the Noise pollution Prevention and Control Operation Specifications, and sets control standards for plant noise. To ensure the reliability of plant measurement data, a third-party impartial unit conducts multi-point tests (at sensitive points in the plant) as a noise database, which must include full-frequency and low-frequency measurement data, and the Supplier Responsibility Specification – Perimeter Noise Management standards (time periods are divided into daytime, nighttime, L50 value, and nighttime Lmax value). Measurements are taken annually.

Factory Noise Control Standards

Category	20 Hz to 200 Hz (low-frequency noise)			20 Hz to 20 kHz (full-frequency noise)		
	Day	Evening	Night	Day	Evening	Night
Category 1	39	39	36	50	45	40
Category 2	39	39	36	57	52	47
Category 3	44	44	41	67	57	52
Category 4	47	47	44	80	70	65

Noise Emissions in Different Plant Areas of ASECL (Low-Frequency) (Unit: Hz)

Plant area	Period	Period average volume	Noise Control Standards for Class IV Factories
2/F Conference Room, Administration Building	Night (23PM-07AM)	31.3	44
2/F Conference Room, Administration Building	Day (07AM-19PM)	31.2	47
2/F Conference Room, Administration Building	Evening (19PM-23PM)	31.3	44

Noise Emissions in Different Plant Areas of ASECL (Full-Frequency) (Unit: Hz)

Plant area	Period	Period average volume	Noise Control Standards for Class IV Factories
2/F Conference Room, Administration Building	Night (23PM-07AM)	37.9	65
2/F Conference Room, Administration Building	Day (07AM-19PM)	37.8	80
2/F Conference Room, Administration Building	Evening (19PM-23PM)	37.8	70
Noise Control Standards for Class IV Factories	Night (23PM-07AM)	60.3	65
Buliding FT/I	Day (07AM-19PM)	69.1	80
Buliding FT/I	Evening (19PM-23PM)	60.3	65
1/F, Buliding M	Night (23PM-07AM)	58.1	65
1/F, Buliding M	Day (07AM-19PM)	63.5	80
1/F, Buliding M	Evening (19PM-23PM)	55.6	70
Roof, Buliding M	Night (23PM-07AM)	59.9	65
Roof, Buliding M	Day (07AM-19PM)	60.2	80
Roof, Buliding M	Evening (19PM-23PM)	60.0	70



Social Inclusion

Employee Profile Distribution

Employee Rights and Benefits

Human Resource Development

Care-free workplace environment

Social care and mutual benefit

Employee Profile Distribution

Employees are an important asset to ASECL. We try our best to providing a safe, healthy and high-quality environment, protecting the rights and interests of employees, and providing multiple communication channels so that they are treated fairly and reasonably. We have also established a comprehensive education and training mechanism, sound career development, and continue to build a consensus among colleagues on the commitment to sustainable development of ASECL.

We are committed to creating a friendly workplace culture of diversity and equality, and zero discrimination, emphasizing equality and respecting multiple values. The selection and promotion of talent is not treated differently due to race, nationality, gender, age, political or religious beliefs, and we value talent. Development, good salaries, and benefits guarantee that employees can develop their skills and make continuous progress in the company, working together with the company to create performance and value. In 2022, we created 2,570 jobs and opportunities and employed 75 people with disabilities.

Management of the material topic "Recruitment and Management of Human Resources" at ASECL in 2022

Material topics	Recruitment and Management
Corresponding GRI Index	GRI 401-1 New employee hires and employee turnover GRI 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees GRI 401-3 Parental leave
SDGs Principle	SDG 8: Decent work and economic growth
Commitments and Policies	Through systematic education and training (training schools, instructor systems), we aim to enhance the stability of new colleagues and reduce personnel turnover rate.
Metrics and Targets	<p>Short-term goals:</p> <ul style="list-style-type: none"> Backfill roles when resignation is expected in advance, and increase the recruitment proportion of key positions such as products (PE), quality assurance (QA) and other engineering positions to 80% to shorten the training schedule and improve employee satisfaction. <p>Medium-term goals:</p> <ul style="list-style-type: none"> Plan to expand recruitment for the new second park, inventory production line requirements, and arrange recruitment schedules. <p>Long-term goals:</p> <ul style="list-style-type: none"> Promote digital transformation, introduce digital recruitment systems and resignation prediction systems, improve recruitment efficiency, and anticipate employment needs in advance, shifting recruitment from "passive" to "active".
Effectiveness Tracking Mechanism	In 2022, we obtained the International Responsible Business Association (RBA) certification with full marks. ASECL places great importance on environmental protection, sustainable operations, and employee rights.
Actions and Measures	<ul style="list-style-type: none"> Saving Actions : In 2022, faced with the heat of the semiconductor industry's human resources market and a surge in recruitment from various companies, external forces increased. Last year, through mechanisms such as employee interviews and resignation improvement meetings, we improved the work environment and pain-points, and reduced internal challenges. Open Source Action : Since 2014, the company has been deeply involved in vocational colleges and universities. The cooperation between industry and academia includes setting up specialized classes and internships to expand more recruitment channels and cultivate professional talent that is suited for ASE. Actual performance in 2022: <ol style="list-style-type: none"> The monthly average resignation rate decreased from 1.3% in 2021 to 1.1% in 2022. In response to industry-academic cooperation, in 2022 we collaborated with 14 schools in three positions: equipment engineer, assembly design engineer, and IT engineer, with a total of 70 full-time employees.

The Structure of Talent

By the end of 2022, the global total number of employees at ASECL was 12,205, an increase of 465 compared to the previous year, mainly the result of an increase in full-time employees due to operational growth. The proportion of employees per region is 74.87% in the Taoyuan region, 9.79% in the Greater Taipei region, and 15.34% in other regions. The gender distribution is 5,829 male employees (47.76%) to 6,376 female employees (52.24%). We are also committed to developing a diverse and diverse talent pool, including ensuring employment opportunities for people with physical and mental disabilities, increasing the proportion of local residents appointed as senior executives, promoting diverse and shared prosperity, and enhancing the overall competitiveness of the company.

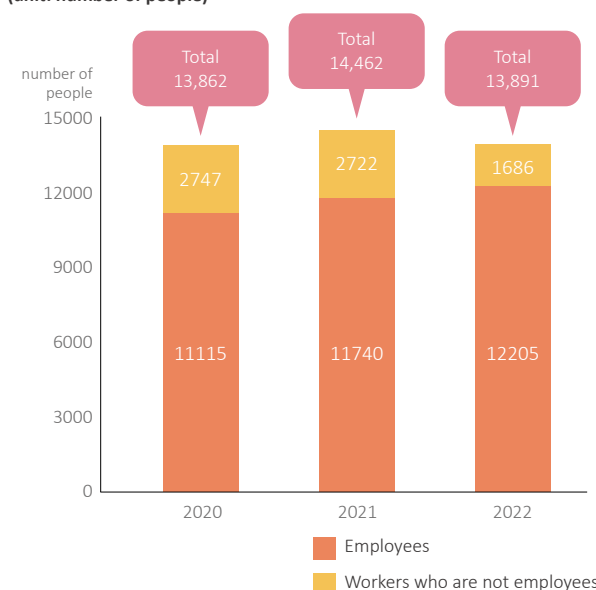
Types of Employees per Region in 2022 at ASECL

Employment Classifications (Unit: number of people)		R.O.C.		Foreign		Total		
		Male	Female	Male	Female	Male	Female	Total
Contract Type	Permanent employee (Non-Fixed-term Contract)	5,343	3,705	430	2,630	5,773	6,335	12,108
	Temporary employees (Fixed-term Contract)	56	41	0	0	56	41	97
Full/Part Time	Full-time employee	5,343	3,712	430	2,630	5,773	6,342	12,115
	Part-time employee	56	34	0	0	56	34	90
	No guaranteed minimum hours (Temporary worker)	0	0	0	0	0	0	0
Education	Ph. D	11	0	0	0	11	0	11
	Master	817	239	1	0	818	239	1,057
	Bachelor	2,947	1,185	289	788	3,236	1,973	5,209
	College	480	322	113	1,443	593	1,765	2,358
	Senior high school and below	1144	2000	27	399	1171	2399	3570
Position	Management	626	138	0	0	626	138	764
	Engineering	3,019	459	248	10	3,267	469	3,736
	Administration	214	472	1	0	215	472	687
	Technical	1,540	2,677	181	2,620	1,721	5,297	7,018
Total by gender		5,399	3,746	430	2,630	5,829	6,376	12,205

Note:

1. Full-time employees: The working time of employees may not exceed eight hours a day nor 40 hours a week according to the Labor Standards Act.
2. Part-time employees: Employees whose working hours are less than 40 hours per week.
3. No guaranteed minimum hours: Employees without minimum or fixed working hours, such as: temporary workers and on-call employees.

Changes in the number of workers at ASECL in the past three years
(unit: number of people)



Note:

1. The number of full-time employees is calculated based on the number of personnel, and the full time equivalent (FTE) method is used to calculate the number of non-full-time employees.
2. As of December 31, 2022.
3. Non-employee workers: The total number of workers who are not hired by ASECL and whose work is controlled by other organizations, including dispatched workers from labor agencies, contractors, visitors, VIP customers; the main job types include environmental cleaning, food supply, park security, etc.

Diversified and plentiful employment opportunities

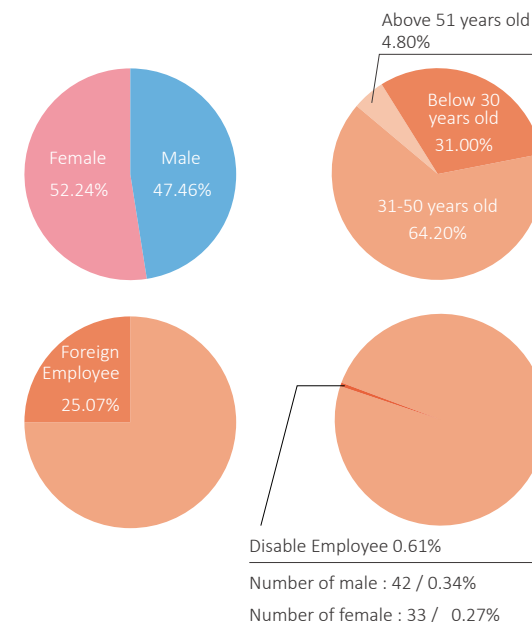
ASECL echoes SDG 8 Decent Work and Economic Growth, providing equal employment opportunities for people of different genders and ages, and ensuring job opportunities for minority groups in accordance with local government regulations to ensure a diverse talent pool. According to end of 2022 employee data statistics, the proportion of female employees is 52.24%, and female supervisors 18.06%; the proportion of middle-aged and elderly workers over 50 years old is 4.80%; and, in accordance with government regulations, a total of 75 employees with physical and mental disabilities (including 54 severely disabled individuals) have been hired in 129 positions accounting for 1.05% of the total number of employees, meeting and exceeding the statutory quota of 122.

To promote local co-prosperity, we actively employ local residents as senior management elites from the local community, including the Taoyuan and Greater Taipei region as our important business strongholds. We have a total of 65 people in positions such as deputy general manager, factory director, deputy factory director, and senior department manager, accounting for 80.25% of all senior management elites.

Diversified distribution of job categories of ASECL employees

Job Category/Multi-Category		Gender		Age			Information disclosed according to actual business condition	
		Male	Female	Below 30 years old	31-50 years old	Above 51 years old	Foreign Employee	Disable Employee
Management (Total 764)	Number	626	138	39	630	95	0	3
	Percentage	81.94%	18.06%	5.10%	82.46%	12.43%	0%	0.02%
Engineering (Total 3736)	Number	3,267	469	1,288	2,362	86	258	7
	Percentage	84.45%	12.55%	34.48%	63.22%	2.30%	2.11%	0.06%
Administration (Total 687)	Number	215	472	230	358	99	1	3
	Percentage	31.30%	68.70%	33.48%	52.11%	14.41%	0.01%	0.02%
Technical (Total 7018)	Number	1,721	5,297	2,227	4,485	306	2801	62
	Percentage	24.52%	75.48%	31.73%	63.91%	4.36%	22.94%	0.51%
Number of employees (diversified category)		5,829	6,376	3,784	7,835	586	3,060	75
Percentage of total employees		47.76%	52.24%	31.00%	64.20%	4.80%	25.07%	0.61%

Percentage of total employees

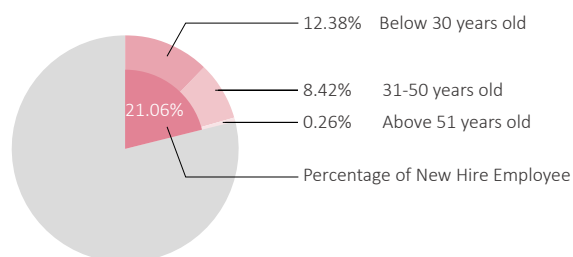


	Nationality	Total number of employees	Total number of managerial employees
All Employee	Taiwan	9,145	764
	China	24	0
	Philippines	3,030	0
	Vietnam	4	0
	USA	1	0
	Malaysia	1	0
New Employee	Taiwan	1,964	21
	China	3	0
	Philippines	598	0
	Vietnam	3	0
	Malaysia	1	1
	Indonesia	1	0

New Hire Employee

In 2022, ASECL continued to recruit talent and hired 2,570 new employees. Among them, 1,499 are male and 1,071 female. Young employees under the age of 30 account for 12% of the total new employees and constitute the largest category of new hires.

Percentage of New Hire Employee



New Hire Employee

Age	Gender	R.O.C.	Foreign Employee	Total	
				Number	Percentage
Below 30 years old	Male	849	80	929	7.61%
	Female	409	173	582	4.77%
31-50 years old	Male	448	107	555	4.55%
	Female	226	246	472	3.87%
Above 51 years old	Male	15	0	15	0.12%
	Female	17	0	17	0.14%
New Hires		1,964	606	2,570	21.06%
Percentage of New Hire Employee		16.09%	4.97%	21.06%	-

Note: Sum of the total number of New Hire Employee/ total number of employees

Resignation and Retention

ASECL continues to strengthen work-life balance, enhance supervisory capabilities, and provide career development opportunities for employees to promote employee retention. In terms of employee retention, the turnover rate of ASECL has continued a downward trend in the past three years; the turnover rate in 2020 about 11.9%, and about 11.5% in 2021. In 2022, a total of 1,337 employees left the company, including 654 males and 683 females; a total turnover rate is about 10.95%.

In addition to holding regular employee seminars to understand employees' opinions, Chung-Li also sets up multiple communication channels to encourage colleagues to raise issues encountered in the workplace. We arrange interviews with the direct supervisor and human resources supervisor of each colleague who submits their resignation to understand the reasons for their resignation, discuss the feasibility of adjusting work content, and conduct a statistical analysis of reasons why employees leave so we can develop improvement measures and improve the work environment.

Distribution statistics of resigned employees

Age	Gender	R.O.C.	Foreign Employee	Total	
				Number	Percentage
Below 30 years old	Male	286	31	317	2.60%
	Female	141	138	279	2.29%
31-50 years old	Male	279	53	332	2.72%
	Female	175	214	389	3.19%
Above 51 years old	Male	5	0	5	0.04%
	Female	15	0	15	0.12%
New Hires		901	436	1337	10.95%
Percentage of New Hire Employee		7.38%	3.57%	10.95%	-

Note:



1. Resignation rate=number of employees who have left their positions/total number of employees in the region at the end of the period.
2. Resigned employees include employees who voluntarily leave the organization, retire, or leave due to dismissal or death while in service.



Maternity Leave Benefit

ASECL implements the Gender Equality in Employment Act and supports SDG 5: Gender Equality. We support the rights and interests of employees to give birth, and protect the right to parental pay and leave. Upon working at the company for six months, all employees of ASECL can apply for parental leave without pay before each child turns three years old. Employees can continue to participate in social insurance when on parental leave without pay.

Number of employees for parental leave applications in 2022

Number of parental leave application in 2022	 		Total
	Male	Female	
Expected number of employees reinstated in 2022(a)	319	341	660
Actual number of employees reinstated in 2022(b)	24	95	119
Reinstatement rate (b/a)	7.52%	27.86%	18.03%
Actual number of employees reinstated from parental leave in 2022	31	116	147
Actual number of employees reinstated from parental leave in 2022 (d)	18	83	101
Retention rate (d/c)	58.06%	71.55%	68.71%
Employees Expected to Return to Work in 2021 After Parental Leave	10	21	31
The number of employees remaining at least one year after Reinstatement in 2021(f)	9	19	28
Retention Rate (f/e)	90.00%	90.47%	90.32%

Note:

1. Based on employees that applied for maternity or paternity leave in the past 3 years (2020-2022)
2. Reinstatement date in 2021 and remaining at least 1 year.

Employee Engagement

Employees are the most valuable asset of ASECL, and we are committed to providing a good environment for our colleagues to fully maximize their strengths. Improving employee engagement is our continuous goal. The results of the employee engagement survey conducted by ASE serve as the basis for formulating strategies to attract and develop talent, optimize rewards, and strengthen employee identity, creating a positive cycle for the enterprise.

Since 2017, we have conducted an employee engagement survey every two years to understand employees' opinions on various policies and practices of the company. We then formulate and implement improvement plans to continuously enhance employees' rational and emotional commitment and investment in their work, thereby having a positive impact on the company's customer experience, performance presentation, employee retention, and talent attraction.

In addition, in the 2021 employee engagement survey we added social (people and group), environmental, and governance (ESG) indicators to the outcome indicators on top of purpose, work, people, total reward, and employee engagement and willingness to stay. By analyzing employees' understanding and identification with the company's ESG efforts, we aim to understand the effectiveness of ASECL in implementing ESG strategies as a reference for future development direction.

Category	Improvement strategies for employee engagement
Organization	<ul style="list-style-type: none"> Enhance the efficiency of workflow and systems through a factory-wide BPI project. Construct an organizational health platform that integrates capabilities, workload, and management to analyze organizational health, and provide it to HR supervisors for early warning analysis.
Growth	<ul style="list-style-type: none"> Cultivate the abilities of advanced personnel and manage their promotion through the method of "ability+contribution=job level". There is a comprehensive system of voluntary rotation and planned rotation, and a career development platform for employees to proactively propose career rotation opportunities.
Capability	<ul style="list-style-type: none"> Establish a training blueprint, define mandatory courses for each job level, and enhance personnel capabilities through the introduction of cross-departmental courses, management courses, and supplier courses throughout the factory.
Fair Pay	<ul style="list-style-type: none"> Design a promotion and salary framework. Provide reasonable promotion years and salary conditions for outstanding employees with a performance level of O, A, and B. Capability + Contribution = Positions, with a total of two promotions and reporting assignments per year, providing employees who are responsible and competent enough to quickly reach a certain level positions.
Retention	<ul style="list-style-type: none"> Design a job evaluation system to provide more reward and compensation programs for positions with a long training time and high work pressure to retain talent. Resignation interview, resignation improvement meeting, new hire care, and intern care.
Sustainable Engagement	<ul style="list-style-type: none"> Construct an organizational health platform that integrates capabilities, workload, and management to analyze organizational health, and provide it to HR supervisors for early warning analysis. Optimize employee maternity benefits by providing maternity leave that is superior to that stipulated by the law and increasing maternity benefits.

Category	Improvement strategies for employee engagement
Inspiration	<ul style="list-style-type: none"> • The second new construction: By expanding the factory, we are showing personnel that ASE has a promising future and is a company with future development potential. • Capable human resources: Encourage employees to enhance their professional knowledge and abilities through recruitment, rewards, internal training, and transparent promotion systems. • Intelligent factory: Construct an efficient production mode, reduce human errors, and stress.
Support	<ul style="list-style-type: none"> • Regularly restate DBS to encourage employees to express their opinions, provide insights, and share their ideas with supervisors. • The company's strategic direction is implemented through the AOD project, and the strategic objectives are unfolded and executed from top to bottom.
Collaboration	<ul style="list-style-type: none"> • Cross-departmental project implementation/team incentive bonus • Other rewards
Inclusion	<ul style="list-style-type: none"> • Hold a monthly communication representative symposium and food satisfaction survey for foreign employees to understand their needs and serve as a basis for improvement. • Hold Halloween and Christmas activities in foreign employees' dormitories to improve team collaboration. • Shift system and salary structure adjustments for foreign employees.
Understanding	<ul style="list-style-type: none"> • Release DBS publicity on major issues so all personnel in the factory are aware of it.
Drive	<ul style="list-style-type: none"> • Regularly release DBS to reiterate and deepen quality among all employees. • BPI systematic automation project execution.
Voice	<ul style="list-style-type: none"> • Regularly reiterate and encourage employees to express their opinions via DBS, and encourage employees to speak up as the basis for company improvement. • Diversified communication channels and public opinion observation, immediate reflection and improvement.
Trust	<ul style="list-style-type: none"> • Regularly reiterate and encourage employees to express their opinions via DBS, and encourage employees to speak up as the basis for management improvement. • Team incentives, and health checkups.
ESG	<ul style="list-style-type: none"> • Education and training: Incorporate moral training courses into the education and training of new employees. • Advocacy activities: Announce in personnel policy documents and annually reiterate the promotion of the Code of Business Conduct and Ethics. • Online courses: Online group business secret education and training, ethical corporate management education and training, etc.

Employee Rights and Benefits

Human rights and labor rights protection

Our company prohibits the employment of children under the age of 16, and prohibits forced labor and any improper employment discrimination. We also require suppliers to comply with international standards and relevant labor employment laws in their business locations. We safeguard all labor rights and interests, including minimum wage, working hours (including overtime), insurance, vacation, pension system, notice periods for contract termination, freedom of association, and group negotiation rights, and provide equal work opportunities and benefits, without discrimination based on race, skin color, gender, religion, politics, nationality, or social background. In 2022, there were no significant risks or incidents of discrimination, use of child labor, forced labor, discrimination, or other violations of labor rights at ASECL or its suppliers.

- The Employee Relations Department serves as the most important communication bridge for the company so the company can promote smooth communication between supervisors and subordinates, and shape a positive interactive atmosphere.
- We have established communication representatives for foreign employees and foreign labor representatives to facilitate major policy promotion and collect opinions as the basis for improvement.
- We have established an employee suggestion box and employee assistance service system to facilitate smooth and convenient communication channels.
- We perform RBA VAP audits every two years and obtained the RBA VAP Platinum Level Certificate in 2022, emphasizing labor human rights, occupational health and safety, and ethical management.
- Following RBA guidelines, foreign colleagues are recruited without any fees or discrimination.

Working Hours

- Regular employees work eight hours a day, 40 hours a week in total.
- If overtime is required due to special circumstances, the total daily working hours shall not exceed 12 hours, and the maximum monthly overtime hours shall be 46 hours.
- According to the Labor Standards Act, employees who work for more than eight hours on a day are to be given additional overtime pay, and may not be forced to work overtime.

Exit method

- If there is a need to terminate the employment relationship with an employee, the company shall comply with Article 16 of the Labor Standards Act, terminate the labor contract by giving the required notice, and provide severance pay and job-seekers' leave.

Labor Agreement

- There is no trade union organization established in ASECL, but according to Article 83 of the Labor Standards Act, regular labor management meetings are held every quarter, and temporary meetings can be held when necessary to facilitate two-way communication and negotiation on issues such as promoting labor management cooperation, coordinating labor relations, improving labor conditions, and planning labor welfare.
- Twelve employee symposiums have been held (for general, new, and foreign employees)

Major operational changes

- Major business changes that affect employee rights and corresponding measures will be implemented after discussion at a labor management meeting.
- Affected employees and their representatives are notified at least 60 days in advance before significant operational changes are implemented.
- During the reporting period, no significant operational changes occurred at the company.

Welfare Measures

To protect the rights and interests of employees and enhance the company's cohesiveness, ASECL provides a complete welfare system for the regular employees. In addition to the basic rights of labor and health insurance, special leave, maternity leave, parental leave, and other statutory rights, it also provides a variety of employee benefits, such as holidays, life insurance, medical insurance, disability insurance, pension, emergency assistance, marriage and childbirth gifts, funeral subsidies, employee dormitories, and free meals, striving to improve employee wellbeing and create a happy workplace.

Welfare Measures for Employees of ASECL

Basic benefits	Insurance	<ul style="list-style-type: none"> Employees receive additional labor, health, and occupational insurance when they start working with the company, disbursed from the provider fund. Employees join the company group insurance plan on the day they start work (including life insurance, accident insurance, hospitalization and medical insurance, cancer insurance, and travel insurance for business trips). On the day the employee starts work, their spouse and children also join the company group insurance plan for free (hospitalization medical insurance).
	Holidays	<ul style="list-style-type: none"> According to the Labor Standards Act and relevant laws and regulations, appropriate statutory holidays are granted. Special leave and marriage leave for children is granted superior to the Labor Standards Act. Superior to that stipulated in the Labor Standards Act: <ol style="list-style-type: none"> Relaxed application conditions: 10 days of special leave after three months of employment One day of marriage leave for employees' children.
	Pension systems	<ul style="list-style-type: none"> For those to whom the old version of the Labor Standards Act applies, a monthly pension of 2% of the total labor salary will be allocated. For those to whom the new pension system of the Labor Pension Act applies, according to the labor pension contribution rate of 6% of the monthly salary of the worker, and the monthly salary classification table approved by the Executive Yuan, the contribution will be deposited into the individual labor pension account.

Rewards and benefits	Bonus for the three major festivals	<ul style="list-style-type: none"> Festival funds are provided on folk festival days to colleagues as a thanks for their hard work and to celebrate the holiday.
	Rewards and incentive bonuses	<ul style="list-style-type: none"> The company allocates a portion of any surplus as a bonus based on monthly operating profit, and issues it to employees based on their performance following approval of supervisors. By means of incentives, staff morale and cohesiveness can be boosted, and work performance and output can be improved.
	Technical and license subsidies	<ul style="list-style-type: none"> We have designed special incentives for bottleneck sites and encourage colleagues to improve their professional and technical abilities, and obtain the necessary certificates for their positions.
Health promotion	Special Clinic	<ul style="list-style-type: none"> Resident nurses and physicians are stationed for consultations, and health lectures are held annually.
	Gym	<ul style="list-style-type: none"> In 2008, the employee leisure center of ASECL was officially completed. Inside the spacious space, there are a variety of sports facilities and equipment, creating a benchmark leisure place for enterprises in Taoyuan Park, allowing employees to enjoy a comfortable sports space in their spare time and promote physical and mental health. The equipment and facilities are complete, combining multiple leisure equipment such as fitness weight training, ball games, aerobics classrooms, massages carried by visually impaired masseurs, books, newspapers, magazines, and bathrooms, etc., to meet the different needs of employees.
	Massage room	<ul style="list-style-type: none"> Visually impaired masseurs provide shoulder, neck, and whole body massage services in the factory.

Complete facilities	Good working environment	<ul style="list-style-type: none"> There is a beautiful garden square and a free employee car and motorcycle parking lot.
	convenience store	<ul style="list-style-type: none"> There are convenience stores in the factory and employees enjoy a discount price.
	Dining places	<ul style="list-style-type: none"> A bright and spacious employee restaurant with free meals. Daily lunch, snacks, dinner, and evening snacks to protect the health of our colleagues. Four meal lines, including a buffet line with meat and one for vegetarians, fast food line, and noodle line for a choice of food. Employees have free meals on duty with a variety of dining options (including buffet, fast food, pasta, vegetarian, sweet soup, fruits, etc.). Additional dishes are offered at festival times. Shift employees are entitled to an additional snack meal.
	Tong Xin Yuan Kindergarten	<ul style="list-style-type: none"> The campus is located within the company's building walls, with high-quality teachers and a spacious environment, allowing employees to fully devote themselves to their work without worrying about childcare. Preschool childcare is open until 19:30 pm to align with employees' shifts. Childcare fees align with public daycare prices to reduce the economic burden on employees.

Welfare Commission	Benefits	<ul style="list-style-type: none"> Source of funds: 0.5% of the monthly salary of employees, 0.1% of the total monthly operating income of the company, and 40% of allocated waste recycling fees are deposited into a special account and managed by the Employee Welfare Committee established by both labor and management. Scope of expenditure: Gift vouchers are provided on the three festival days, and as wedding gifts, funeral condolences, hospitalisation subsidies, maternity allowances, subsidies for community activities, travel allowances, and various welfare activities.
	Parent-Child Family Day	<ul style="list-style-type: none"> Chung-Li Factory held a family day activity, and presented each colleague with souvenir clothes, hats, and vouchers for entertainment tours, inviting the staff's families to share a happy and warm time together (due to the epidemic in 2022, welfare committee activities were suspended).
	End of year dinner Factory competition Club activities Manufacturers' exhibitions and sales	<ul style="list-style-type: none"> To thank our colleagues for their hard work and dedication we organize a year-end dinner party. To build up staff morale and enhance cohesiveness so colleagues can relax physically and mentally after work. <p>(Due to the pandemic in 2022, welfare committee activities were suspended.)</p>
	Authorized manufacturers	<ul style="list-style-type: none"> Our authorized manufacturers are located throughout Taiwan and outlying islands, offering a diverse range of franchised services including food, clothing, housing, transportation, education, and entertainment, allowing employees to enjoy discounted benefits.
Charitable Foundation	Emergency assistance	We help colleagues in times of need by providing timely assistance.

Tong Xin Yuan Kindergarten

From the age distribution of employees, the average age of colleagues at ASECL is about 35 years old, and most have preschool childcare needs. According to statistics, Taiwanese people spend more than 30% of their household income on their children's education, and in recent years, the proportion has continued to rise due to the impact of the epidemic and inflation. To reduce the burden on employees' families and childcare, Tong Xin Yuan Kindergarten established by Chung-Li Factory provides high-quality educational and childcare services, and assists parents at work with its three main characteristics:

Tong Xin Yuan Kindergarten provides a friendly childcare environment that allows parents to work with peace of mind, while improving employee family harmony and reducing turnover rates. It is also beneficial for enterprises to recruit and retain talent, and is a model for friendly enterprises.

Fees and charges

Since its establishment, the kindergarten has been operating as a non-profit, with tuition fees for young children almost comparable to those charged by public kindergartens, effectively reducing the burden of educational expenses on employees.

Education quality

The Welfare Committee of ASE Group allocates funds every month to support the various expenses of Tong Xin Yuan Kindergarten, allowing the kindergarten to continuously improve educational quality, innovate course content, train high-quality teachers, create a safe, comfortable, and well-designed environment, provide diverse courses and age-appropriate teaching aids for young children, and allow them to explore and learn freely.

Childcare time

Our on-site childcare service aligns with the company's work schedule. The extended childcare service allows our staff to focus on work and enhance their affiliation with the company without the worry about their children.



Human Resource Development

Multiple training channels

To cultivate talent and improve employee abilities, ASECL provides a complete education and training mechanism. From new personnel training, professional skills required for each position, and leadership training for middle and senior executives, dedicated personnel design training projects. Through diversified learning platforms such as physical education, online learning videos, digital learning platforms, and teaching satisfaction feedback mechanisms, the training plan of the company is continually improved. The average number of training hours per colleague in 2022 is 26.87 hours; the average training hours for male colleagues are 29.22 hours, and 24.60 hours for females. The entire year's investment in training funds is NT\$5,569,251, and relevant professional certificates are subsidized for employees' further education. In 2022, subsidies amounted to NT\$780,000.

According to job attributes, ASECL has established corresponding training systems. The relevant training system is as follows:

Direct employee	Newcomer training, training schools, operational teaching, certification exams
Indirect employee	There are different training methods and frequencies based on the training content.
Supervisor position	Different types of management function courses are provided to supervisors at different levels.
Supervisor's successor	The successor system is a part of supervisor training.

Training status of employees at ASECL in 2022



Job Category	Calculation method	Male	Female	Subtotal
Management	The actual number of people during the reporting period	642	146	788
	Training hours during the reporting period	20,816.1	5,199.47	26,015.57
	The average number of training hours during the reporting period	32.42	35.61	33.01
Engineering	The actual number of people during the reporting period	3,562	513	4,075
	Training hours during the reporting period	110,458.04	18,878.11	129,336.15
	The average number of training hours during the reporting period	31.01	36.79	31.73
Administration	The actual number of people during the reporting period	247	516	761
	Training hours during the reporting period	9,443.61	18,847.32	28,290.93
	The average number of training hours during the reporting period	38.23	36.52	37.17
Technical	The actual number of people during the reporting period	1,992	5,529	7,521
	Training hours during the reporting period	47,560.41	122,006.32	169,566.73
	The average number of training hours during the reporting period	23.87	22.06	22.54
Total	Total hours during the reporting period	188,278.16	164,931.22	353,209.38
	Total number of employees at the end of the reporting period	6,443	6,704	13,145
	The average number of training hours per employee	29.22	24.60	26.87

Processing and participation of in-service training courses at ASECL in 2022

Course category	Total number of person-time	Hours of courses	Completion rate
New employee training	2,417	7,251	100%
Network security awareness	12,025	24,050	100%
Personal Information Protection	12,025	24,050	100%
Occupational health and safety training	12,004	36,012	100%
Total	38,471	91,363	100%

Number and hours of participants in the in-service training sustainable courses at ASECL in 2022

Training course topic categories	Total number of people	Total hour number
Participation in environmental issues	12,025	12,025
Health and safety issues	12,025	36,075
Human rights issues	12,025	50,476

2022 Statistics on employee training expenses of ASECL (total amount: NT \$5,569,251)

Group	Category	Total (NT\$)	Proportion in this group (%)
Gender	Male	4,880,596	87.63%
	Female	688,655	12.37%
Age	<30	242,495	4.35%
	30-50	4,745,940	85.22%
	>50	580,816	10.43%
Management	Senior	231,000	4.15%
	Middle	293,250	5.27%
	Junior	242,865	4.36%

Performance and career development

provides a complete promotion and compensation system, and regularly conducts employee performance evaluations. The department head regularly evaluates the work performance of indirect employees in the department on a monthly/semi-annual basis, and links the evaluation results to human resource management operations, such as performance improvement coaching, motivation and development, salary adjustments, promotions, rewards, transfers, etc., to facilitate organizational management and human capital development.

Performance review of employees at ASECL in 2022



Job Category	Calculation method	Male	Female	Subtotal
Management	Total number of employees at the end of the reporting period	626	138	764
	Number of employees who undergo regular performance and career development reviews	626	138	764
	Percentage	100%	100%	100%
Engineering	Total number of employees at the end of the reporting period	3267	469	3736
	Number of employees who undergo regular performance and career development reviews	3267	469	3736
	Percentage	100%	100%	100%
Administration	Total number of employees at the end of the reporting period	187	452	639
	Number of employees who undergo regular performance and career development reviews	187	452	639
	Percentage	100%	100%	100%
Technical	Total number of employees at the end of the reporting period	1693	5276	6969
	Number of employees who undergo regular performance and career development reviews	1693	5276	6969
	Percentage	100%	100%	100%
Total	The total number of employees who undergo regular performance and career development reviews	5773	6335	12108
	Total number of employees at the end of the reporting period	5773	6335	12108
	The proportion of employees who regularly undergo performance and career development reviews	100%	100%	100%

Note: The objects of performance review are only applicable to the full-time colleagues and do not include the contracted colleagues.

Care-Free Workplace Environment

Management of the material topic "Occupational Health and safety" at ASECL in 2022

Material topics	Occupational Health and Safety
Corresponding GRI Index	GRI 403-1 、 403-2 、 403-3 、 403-4 、 403-5 、 403-6 、 403-7 、 403-8 、 403-9 、 403-10
SDGs Principle	SDG 3: Good health and well-being
Commitments and Policies	Based on the occupational health and safety management system, decision-making and policy planning are carried out to provide employees with a safe, healthy, and high-quality work environment, ensuring diversity of the labor force and protecting the human rights of employees and stakeholders for an inclusive workplace.
Metrics and Targets	Short-term goals: <ul style="list-style-type: none"> 0 Major occupational injuries and diseases. Medium-term goals: <ul style="list-style-type: none"> Disability FR and SR can sustainably reduce the industry average standard annually. Long-term goals: <ul style="list-style-type: none"> Maintain occupational health and safety management system certification and a safe working environment.
Effectiveness Tracking Mechanism	<ul style="list-style-type: none"> Confirm the continuous effectiveness of the system through annual internal and external audits. By proposing improvements to the system, 6S performance evaluation ensures effective maintenance of workplace work safety.
Actions and Measures	<ul style="list-style-type: none"> Improve the safety of oven feeding, design auxiliary feeding elevators to avoid human hazards. Fix the pedal of the molding machine and install a fixed seat at the position where the pedal is easily displaced to prevent personnel from falling during operation. Improvement of the trolley door latch to reduce injury due to a sliding trolley door blade. Add lighting and repair the electrical pipeline rooms of each building to maintain basic lighting and reduce the risk of accidents of construction personnel during operation. Improve the gap between the automatic alarm check valve pipelines in Building D to prevent personnel from falling, and install safety nets.

ASECL has obtained and effectively maintains the ISO 45001 Occupational Health and Safety Management System certification, which covers all workers who are under organizational control, or perform operations or related activities. In accordance with the system, occupational health and safety management rules have been formulated, and actions for occupational health and safety and opportunities are evaluated for effective management to reduce occupational injuries. In addition, work health and safety promotion activities, education and training, and emergency response drills are also conducted to establish correct health and safety concepts and knowledge among all workers, reduce operational risks for employees, implement environmental health and safety management, create a safety culture, improve work efficiency and quality, and fulfill corporate social responsibility.

Chung-Li Factory also promises to provide employees with a comprehensive safe, hygienic and healthy working environment and a sound management mechanism, continuously creating a safer and more friendly working environment for everyone's safety, including contractors and visitors. With increasingly strict occupational health and safety management requirements, occupational health and safety risk assessments and improvement are conducted every year, effectively reducing hazards and risks in the working environment, and improving the occupational health and safety management. We look forward to working together with all colleagues and vendors to create a safe and healthy working environment through the implementation of health and safety management.

Key Performance Indicators	2022 Performance Goals	Achievements in 2022	2023 Goals	2030 Goals
Number of major occupational injuries and illnesses	0	0	0	0

Occupational health and safety management system

To maintain employee safety and prevent occupational accidents, ASECL has established an occupational health and safety management system in accordance with Article 23 of the Occupational Health and Safety Law and to comply with government regulations. The scope of the workplace covered by the occupational health and safety management system is ASECL, which regulates the relevant workers and all production activities of Chung-Li Factory, with coverage of 100%. We have established the Occupational Health and Safety Work Code and Occupational Health and Safety Management Plan in accordance with the Occupational Health and Safety Law and relevant laws and regulations. We aim to focus on six key areas of work and continuously conduct occupational hazard risk assessments to improve the system through PDCA circular quality management. Each department has established occupational health and safety sections, management staff, and emergency medical personnel in accordance with the law. ASECL has also invested TWD 26.32 million dollar in its occupational health and safety business, striving to prevent occupational disasters through comprehensive prevention measures.

Workers included in occupational health and safety management system

Factory area	Employees	Workers who are not employees	Subtotal	Coverage ratio
Chung-Li factory	12,205	1686	13891	100%
Total	12,205	1686	13891	100%

Note:

1. The number of non-employees includes contractors and dispatched personnel who have been working in the factory for a long time.
2. Calculation method for coverage ratio: the total number of employees covered by the occupational health and safety system (employees + non-employees)/the total number of company workers.

Occupational health and safety management system

Health and safety education training and disaster drills

- Conduct work safety education and regular retraining for employees and contractors.
- Provide job-related education and training for emergency medical personnel and environmental health and safety professionals.

Hazard identification and risk assessment

Identify and evaluate hazards that may cause occupational injury or disease, including hazardous workplaces, chemical substances used in processes, and safety assessments for work activities. The identified hazard risk factors currently include the hazards of falling and curling.

Environmental health and safety audit and inspection

Chung-Li Factory conducts weekly audits and inspections. Any risk of occupational accident is reported to the Occupational Safety Committee. This year, 43 audits and inspections have been completed, and the main non-conforming items are chemical management and equipment safety. In the future, we will continue to track and improve various health and safety issues.

Emergency response to disasters and accidents

Develop a SOP, follow the process to report and handle unexpected disasters and accidents, analyze incidents, investigate the cause of accidents, and review improvement measures.

Health management and promotion

Regularly organize general and special health checks, and update and health education posters for disease prevention and control, assess work compatibility, and promote disease prevention due to abnormal workload.

Health protection measures for specific groups

- Measures for maternal health protection: Provide maternal health assessments and work allocation for pregnant and postpartum women, ensuring the physical and mental health of female workers during pregnancy, post-delivery, and when breastfeeding, and plan exclusive parking spaces for pregnant women, nursing rooms, and other measures.
- Measures for health management of workers at high risk of occupational accidents
- Measures for occupational health and safety of suppliers and contractors

Occupational Health and Safety Committee

To protect the rights and interests of employees, in accordance with the requirements of the Occupational Health and Safety Act, ASECL has a Corporate Sustainability Committee serving as the Occupational Health and Safety Committee, with a total of 50 members, one medical professional, five engineering and technical personnel engaged in occupational health and safety, and 24 department directors, supervisors, and commanders, including 17 labor representatives with a proportion of 34%.

The Occupational Health and Safety Committee is responsible for enhancing the level of health and safety management and safety management goals through planning, implementation, evaluation, and improvement of the environment. An Occupational Health and Safety Committee Meeting and 6S Monthly Meeting is held every month, with discussion topics including: promoting occupational health and safety policies and management plans, health and safety education and training plans and implementation, health management reviews, occupational disease prevention, and health promotion matters, explaining safety inspections and the promotion of environmental and health abnormalities, and issues such as promoting hazard prevention measures for machinery, chemicals, and emergency response to fire and disaster prevention.

In addition, if a worker believes that the work environment may cause injury or illness, they can also apply to their immediate supervisor for transfer to another position and they will be protected from intimidation, threats, or termination of employment in accordance with the work rules of the company.

Occupational health and safety education and training

To enable employees to deal with urgent and potential occupational safety incidents, ASECL provides relevant disaster and accident response training for employees. In 2022, Chung-Li factory conducted response drills for unexpected events such as earthquakes, fires, and chemical disasters on 29 occasions.

Occupational health and safety risk events	Number of drills	Total 29 sessions
Earthquake	7 sessions	
Fire	10 sessions	
Chemical disasters	6 sessions	
Other	6 sessions	

To enable employees to work in a healthy and safe working environment, ASECL regularly conducts occupational safety training for new employees and contracted workers, as well as retraining for in-service employees, so that employees can obtain the necessary safety knowledge at work. To avoid similar accidents from happening again, our company also regularly conducts accident education and training, and uses accident investigations and analysis to help colleagues understand the cause of accidents, reduce the occurrence of occupational safety accidents, and strengthen employee health and safety.



2022 Personnel Health and safety Training at ASECL

Employee Category	Training Category	2022 Training Course	Hours of courses Hour(s)	Actual Participants	Total Hours
New Hire Employee	General training	General health and safety education and training for new employees	3	2417	7251
	Specific training	Engaged in operational education and training of productive machinery or equipment	3	2417	7251
		Education and training on the manufacture, disposal, or use of hazardous chemicals	3	2417	7251
		Health and safety Education and Training for Ionizing Radiation Operators (Initial Training)	18	133	2394
Active employees	General training	General on-the-job health and safety education and training	3	12004	36012
	Specific training	Chemical operation certification education and training	3	6562	19686
		Emergency Response and Self Defense Fire Marshalling Education and Training	1	2325	2325
		Occupational Health and safety Committee Education and Training	1	85	85
		Health and safety education and training for ionizing radiation operators (retraining)	3	431	1293
		Emergency personnel education and training (retraining)	3	140	420
		Organic solvent operation supervisor (retraining)	6	78	468
		Specific chemical substance operation supervisor (retraining)	6	33	198
		Anoxic work supervisor education and training (retraining)	6	7	42
Labor contractor	General training	Health and safety Education and Training for Contractors (Initial Training)	1	1802	1802
		Health and safety Education and Training for Contractors (Retraining)	1	3527	3527
Total			61	34378	90005

2022 ASECL Occupational Health and safety Function Improvement Course

NO.	Course	Plan course objects	Hours of courses Hour(s)	Actual Participants	Completion rate
1	Domestic occupational health and safety regulations	Members of occupational safety and occupational safety committee	2hr	68	100%
2	International environmental regulations	Job safety, factory management, procurement, quality assurance	2hr	30	100%
3	Concept and practice of contract management	Members of the occupational safety, factory affairs, procurement, legal affairs, and occupational safety committees	2hr	71	100%
4	Procurement safety (change) management	Job safety, procurement, legal affairs	2hr	29	100%
5	Energy management performance measurement and verification training course	Occupational safety and energy management personnel	2hr	78	100%

2022 ASECL Occupational Health and Safety Risk Event Exercise and Education Training



Occupational safety hazard risk control

ASECL has also established four major plans for occupational safety risk control in accordance with the regulations and relevant guidelines. Through the identification and evaluation of occupational safety hazards and risks, employees can maintain their own health while at work. In recent years, we have continuously identified and reduced the occupational safety risks of our employees through four major plans and management measures, providing them with a secure work environment.

Four major plans and achievements for occupational safety risk control and management

	Maternal Health Protection System	Abnormal Overload Plan	Human Factors Risk Assessment Program	Illegal infringement prevention plan
Description	Chung-Li Factory established a maternal health protection system in 2019, systematically implementing maternal health protection and management within the factory, and annually reviewing the implementation of the Protecting and Managing Maternal Health.	Our factory provides statutory regular health checks, implements disease prevention identification and interview guidance for abnormal workloads, and reviews the disease prevention plan for abnormal workloads every year.	Our factory uses the KIM for evaluations and reviews the human hazard prevention plan annually.	Chung-Li Factory conducted an annual risk assessment of illegal infringement and provides communication skills training to employees to avoid being harmed by third parties' words, actions, etc.
Effect	<ul style="list-style-type: none"> In 2020, a total of 139 cases of maternal health protection were implemented, and hazard identification and assessments were managed at the first level. All cases completed health guidance. In 2021, a total of 255 cases of maternal health protection were implemented. In the hazard identification assessment, one person was under second-level management, while the rest were under the first-level management. The person under second-level management was re-evaluated as first-level management by a vocational specialist, and all completed health guidance. In 2022, a total of 261 cases of maternal health protection were implemented, and the hazard identification and assessments were managed at the first level. All cases completed health guidance. In the past three years, the health guidance of our factory has been 100% completed, and our professional nursing staff regularly call to manage patients. 	<ul style="list-style-type: none"> In 2020, abnormal workloads contributed to the identification of 3,274 cases of disease prevention. After discussion with our factory's occupational specialists, a total of 35 cases were considered high-risk groups, and all interviews were completed in May of the same year. In 2021, abnormal workloads contributed to the identification of 4,944 cases of disease prevention. After discussion with our factory's occupational specialists, a total of 115 cases were considered high-risk groups, and all interviews were completed in April of the same year. In 2022, abnormal workloads contributed to the identification of 811 cases of disease prevention. After discussion with our factory's occupational specialists, a total of 62 cases were considered high-risk groups, and all interviews were completed in July of the same year. The completion rate of interviews in the last three years has been 100%. 	<ul style="list-style-type: none"> In 2020, seven items were executed, including five items with a risk level of 3, and two items with a risk level of below 2 (which is an acceptable risk within the factory). The warehouse receiving, picking, packaging, and shipping operations with a risk level of 3 were reduced to below level 2 after the automation of the warehouse in the factory area. In 2021, four projects were implemented, all of which were lower than risk level 2. In 2022, 18 cases were implemented, all of which were at risk level 2 or below. In the past three years, a total of 29 cases of human hazard prevention were implemented, and after improvement, the risk level fell to below level 2, which is an acceptable risk within the factory. 	<ul style="list-style-type: none"> From 2021 to 2022, Chung-Li Factory did not receive any cases of illegal infringement during the work performance.

We also conduct hazard identification analysis and set risk levels based on occupational disaster records. Common types of occupational safety hazards include falls, cuts, and collisions. We provide education and training for new employees and provide on-the-job education and training to factory personnel every year to ensure that they understand health and safety management regulations and hazard precautions, and reduce the risk of occupational disasters.

Hazard identification, analysis, and improvement measures for occupational health and safety management in Chung-Li Factory

Hazard identification	Hazard analysis	Risk level	Measures to improve
Mechanical hazards	<ul style="list-style-type: none"> The machine safety protection mechanism has been turned off Hazards of mechanism crimping 	Low	<ul style="list-style-type: none"> Audit of machine/chemical environmental safety and hygiene changes Set up safety covers and protective devices on the machine Regular automatic inspection and maintenance of equipment Regular inspection Wear protective equipment during operation Regular health check-ups and occupational medical evaluation Shorten working hours, rotate or temporarily change work Newly hired, in-service, general, special assignments, health and safety education and training promotion Perform safety and environmental monitoring of operations Ventilation: High-temperature and thermal environment
Chemical Hazards	<ul style="list-style-type: none"> Employees are exposed to hazardous chemical/organic solvent leaks in the working environment 	Low	
Physical hazards	<ul style="list-style-type: none"> Hazards caused by high and low temperature operations, noise, and radiation Collision and fall of environmental facilities Tool cutting hazards 	Low	
Human hazards	<ul style="list-style-type: none"> The harm of musculoskeletal injuries caused by repetitive work postures Bad posture causing muscle strain 	Low	

Management measures for occupational health and safety of contractors

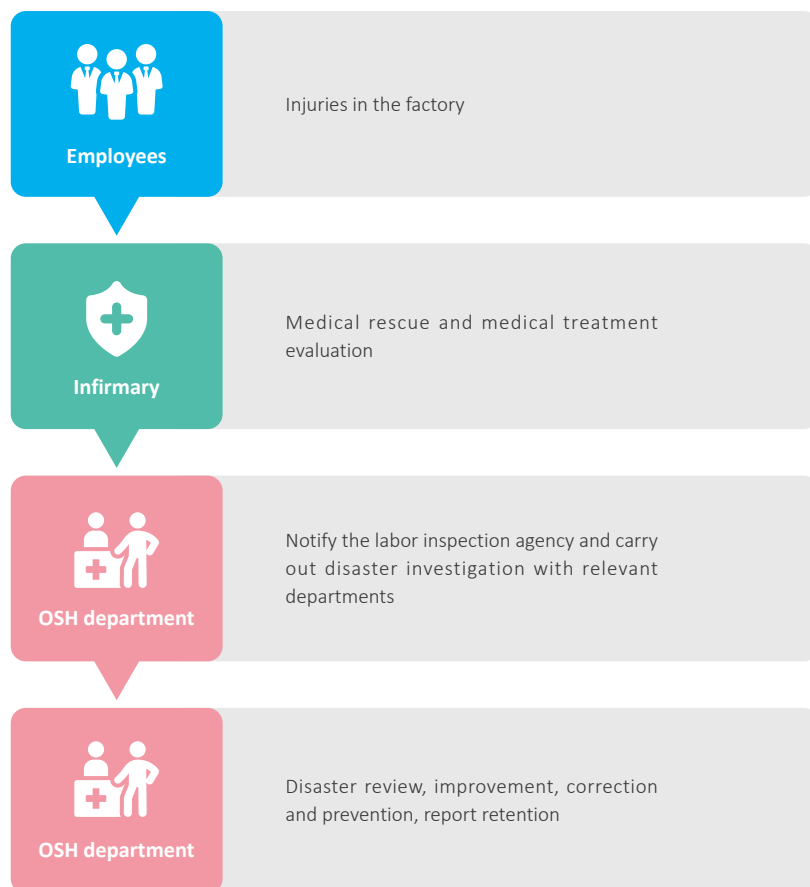
ASECL has formulated contractor management measures to ensure that contractors implement safety management mechanisms and achieve the goal of zero work-related injuries in the work environment. Chung-Li Factory provides 12 categories based on the high-risk special operating environment within the factory, namely, working with extreme heat, working while being suspended, confined spaces, overheads, forklift truck operations, external working at height, roof operations, dust-free room operation, opening operations, organic solvent operations, and hazardous pipeline and construction frame operations. Chung-Li Factory has set special operation points and implemented construction control for different operating environments. At the same time, contractors who undertake high-risk operations will be required to comply with the requirements of the ISO 45001 Occupational Health and Safety Management System.

Procedure for contractor's entry into the factory



Occupational accident response and handling

Employee work-related injury incident reporting and handling process



Accident investigation process

Accident occurrence	Tracing the cause of the incident	Event review and improvement matters
<p>After an occupational accident occurs, the department in charge of the accident should immediately report to the infirmery to take necessary rescue measures. The infirmery should evaluate and report to the occupational health and safety department and department head for a follow-up investigation, and notify the fire department, medical department, etc. in accordance with relevant regulations to request external support. If a company experiences an occupational disaster under Article 37 (2) of the Occupational Health and Safety Act, it should notify the local labor inspection agency within eight hours. Without permission from judicial authorities or labor inspection agencies, the scene shall not be moved or damaged.</p>	<p>The OSH department, in conjunction with the accident department and labor representatives, conducts a disaster investigation and analysis, prepares a disaster investigation report, then submits it to the head of the accident department and Occupational Health and Safety Committee for review and promotion, and retains the investigation record report.</p>	<p>According to the disaster investigation report, the accident department comprehensively reviews, improves, corrects, and prevents the accident. The department head and OSH department track and confirm improvements. The OSH department evaluates the level and promotes it in the factory area, and includes it in education and training to avoid recurrence.</p>

Statistics and analysis of occupational injury accidents

The occupational injury statistics of ASECL are mainly based on the important indicators published by the Ministry of Labor and the GRI Guidelines: Disability FR, disability SR, and FSI.

At ASECL, the total working hours were about 24 million hours, 84 recorded occupational injury records while no fatalities in 2022. Unsafe actions accounted for 81% of reported accidents in the year. An occupational injury caused by falls, collisions, and cuts was the highest (64%) among the top three types of accidents. Chung-Li Factory implemented disaster analysis, correction, and improvement measures for each work-related injury case, and the Occupational Health and Safety Committee requested each department to strengthen safety supervision every month.

Occupational injury statistics of workers in the ASECL in the past three years

Year	2020		2021		2022	
Employee category	Employees	Workers who are not employees	Employees	Workers who are not employees	Employees	Workers who are not employees
Number	11115	2747	11740	2722	12205	1686
Total Working Hours	22,687,810	5,716,544	25,074,504	5,664,456	24,984,542	3,509,658
Number of Fatalities	0	0	0	0	0	0
Rate of Fatalities	0	0	0	0	0	0
The number and rate of high-consequence work-related injuries	0	0	0	0	0	0
Rate of High-Consequence Work-Related Injuries	0	0	0	0	0	0
The number and rate of recordable work-related injuries	92	0	88	0	84	0
Recordable Injury Frequency Rate	4.05%	0	3.5%	0	3.36%	0

Note:

- Occupational injury refers to accidental injuries caused by workers performing their duties or occurring in the workplace; the statistical basis does not include commuting disasters (if transportation vehicles are arranged by the team, such as official vehicles or special transportation vehicles, disasters during driving are included).
- The number of full-time employees is calculated based on the number of personnel, and the full-time equivalent (FTE) method is used to calculate the number of non-full-time employees.
- Serious occupational injury: Refers to an injury (excluding death) caused by occupational injury that results in disability or inability to recover to the same healthy state before the injury within six months (according to the GRI definition, "recovery time" is used instead of "work lost time", and workers may return to work or terminate their employment before fully recovering).
- Mortality rate=number of deaths caused by occupational injuries × 1,000,000 ÷ Total Working Hours
- Serious occupational injury rate=number of serious occupational injuries × 1,000,000 ÷ Total Working Hours
- Total Recordable Injury Frequency Rate (TRIFR)=Number of recordable occupational injuries (including severe occupational injuries, deaths, and other TRIFR) × 1,000,000 ÷ Total Working Hours
- 4 to 6 point ratio calculation method: calculated to 2 decimal places, not rounded to 5.

Statistics on the frequency and severity of disability injuries among workers in the ASECL in the past three years

Year	Employee category	Number of Working Days Lost Due to Disability	Total Working Hours	Number of Disability Injury	Disabling Frequency Rate (FR)	Disabling Severity Rate (SR)	Frequency Severity Indicator (FSI)
2020	Employees	452	22,687,810	22	0.96	19	0.13
	Workers who are not employees	0	5,716,544	0	0	0	0
2021	Employees	500	25,074,504	17	0.71	20	0.11
	Workers who are not employees	0	5,664,456	0	0	0	0
2022	Employees	896	24,984,542	23	0.92	35	0.17
	Workers who are not employees	0	3,509,658	0	0	0	0

Note:

1. Number of lost working days: Number of days unable to work (rest days). The calculation basis includes occupational accident injury leave, excluding sick leave and menstrual leave.
2. Disabling frequency rate (FR) = times of disabling injury × 1,000,000/total working hours (calculated to 2 decimal places, not rounded up or down)
3. Disabling severity rate (SR) = (days of disability damage loss × 1,000,000)/total experienced working hours (rounded to an integer, not rounded up or down)
4. Frequency-severity indicator, FSI = $\sqrt{(FR \times SR) \div 1000}$
5. Due to the high number of disabled and injured individuals in 2022, among which six were hospitalized, and occupational disasters, the overall number of lost days was relatively high, resulting in a higher FR/SR/FSI value (there were six inpatient occupational disaster notifications in 2022, and only three inpatient occupational disaster notifications in 2021).

Occupational injury statistics of workers at ASECL in the past three years (work-related injury events with lost working hours)

Category	Group	Employees	Workers who are not employees (Distributors)
Category of Occupational Injuries	Number of Physical Injuries	61	0
	Number of Chemical Injuries	0	0
	Number of Ergonomic Injuries	1	0
	Number of Biological Injuries	0	0
	Number of Psychosocial Injuries	0	0
	Total	62	43
Occupational Injuries	Rate of Occupational Injury	2.48	0
	Number of Disability Cases	0	0
	Rate of Disability Cases	0	0
	Number of Fatalities	0	0
	Rate of Fatalities	0	0
	Number of Occupational Diseases	0	0
	Number of Fatalities	0	0
	Rate of Fatalities	0	0
Total Number of Working Hours (Hour)		24,984,542	3,509,658

Note:

1. The Workers include employee and contractor (exclude visitors)
2. Rate of occupational injury = (number of occupational injury × 1,000,000)/ total hours of actually worked
3. Rate of disability cases from occupational injuries = (number of disability cases from occupational injuries × 1,000,000)/ total number of working hours, excluding number of fatalities
4. Rate of fatalities from occupational injuries = (number of fatalities from occupational injuries × 1,000,000)/ total number of working hours
5. Rate of fatalities from occupational diseases = (number of fatalities from occupational diseases × 1,000,000)/ total number of working hours

Workplace health services

Occupational injury and disease prevention management

ASECL has been actively promoting and emphasizing the workplace health environment for a long time. It has established a 24-hour medical clinic, hired labor health service physicians and full-time labor health service nursing staff, and contracted occupational medicine specialists to provide various professional medical services, emergency injury and disease treatment, and emergency rescue. The main business of the Chung-Li infirmary is divided into resident medical services, health examinations, and emergency medical treatment.

Resident services mainly provide outpatient services for employees in Chung-Li Factory such as health insurance clinics, smoking cessation clinics, infectious disease prevention and control publicity, influenza vaccine administration, and various health service consultations. We also hire occupational medicine physicians from Chang Gung Hospital in Linkou, as well as a family medicine medical team, to provide consultations on occupational diseases, general injuries, and other health management services. To ensure the health of maternal workers, ASECL has also set up a private and comfortable breast feeding room, and provides various disinfection equipment, specialized breast milk storage refrigerators, and various facilities for female employees. In 2022, a total of 261 individuals were evaluated for maternal health protection (including those on tocolysis leave and maternity leave). After a comprehensive evaluation by physicians, one second-level manager required further consults. After implementing protective measures and continuous tracking, the re-evaluation was changed to first-level management, and there is no third-level or higher manager within this category. We also strengthen the promotion of related tasks that are not allowed to be carried out during pregnancy and within one year after childbirth, and have a dedicated person regularly monitoring.

In terms of health checks, to prevent and regularly inspect the health risks of employees, ASECL conducts regular health checks for all employees every year, including general job health checks and various special job health checks, such as noisy work, ionizing radiation work, and dust work, etc. In 2022, 3,484 people were eligible for inspection, and 3,193 people were inspected; a rate of 91.65%. The total cost of health examinations amounted to NT\$1,360,190. In terms of privacy protection, employees' health examination reports are subject to hierarchical management in accordance with the regulations, while employees' personal health status is guided by labor health service physicians and occupational medicine specialists. If necessary, on-site visits and coordination evaluations may be conducted. In 2022, the third-level management included two people working with noise and two people working with ionizing radiation. After re-inspection, they were all reclassified as level-2 management and continued to be provided with relevant work protection measures. Chung-Li had no Level-4 management cases this year.

The Chung-Li infirmary is also responsible for emergency medical assistance within the factory. When an occupational health and safety accident occurs, doctors and nursing staff in the infirmary are responsible for on-site rescue and external medical evaluations to minimize injuries.

Health management grading of special physical examinations in the past three years (unit: number of people)

Year	Number of subjects	People of level 1 health management	People of level 2 health management	People of level 3 health management	People of level 4 health management
2020	825	510	311	0	4
2021	890	547	342	0	1
2022	1025	686	339	0	0

Note:

1. level-1 management: Those whose inspection results are comprehensively determined to be normal.
2. level-2 management: Those whose inspection results are comprehensively judged as abnormal and unrelated to work.
3. level-3 management: If the examination results are comprehensively determined to be abnormal and the job relevance cannot be determined, it is necessary to arrange a professional medical specialist for evaluation.
4. level-4 management: Those whose inspection results are comprehensively judged as abnormal and related to their work.

Occupational disease statistics of workers at ASECL in the past three years: 0 people

Year	Employee category	Total Working Hours	Number of cases	Number of Fatalities	Rate of Fatalities	Main types of occupational diseases
2020	Employees	22,687,810	0	0	0	None
	Workers who are not employees	525,829	0	0	0	None
2021	Employees	25,074,504	0	0	0	None
	Workers who are not employees	428,360	0	0	0	None
2022	Employees	24,984,542	0	0	0	None
	Workers who are not employees	403,776	0	0	0	None

Note: The number of cases does not include traffic disasters.

- Occupational diseases refer to acute, recurrent, and chronic health problems caused or exacerbated by work, including musculoskeletal diseases, skin, and respiratory system diseases, malignant cancers, diseases caused by physical factors (such as hearing loss), mental illnesses, etc.
- Total Working Hours: The total annual working hours of all workers. Employees are calculated based on the actual number of working and overtime hours. A full year data estimation based on non-employees (contractors and dispatched workers) is taken as 8 hours per day × (number of people entering the factory every month × the number of working days per month).
- Rate of fatalities = number of deaths caused by occupational diseases × 1,000,000 ÷ Total Working Hours (calculated to 2 decimal places).

Health promotion care

We expect employees to achieve a balance between work, health, and life. In 2020, ASECL introduced the EAP (Employee Assistance Program) and established a new health center, integrating professional service resources from both internal and external sources. Whether passive notification or seeking help themselves, Chung-Li can assist employees in solving problems that affect work performance due to physical and mental health, and other factors. Employee assistance includes on-site physician visits and health consultations, psychological tests, regular health information notifications, and health lectures.

The infirmary of ASECL is staffed with nursing staff on duty 24 hours a day, and employs labor health service physicians and contracted occupational medicine specialists. It also provides health insurance clinics, smoking cessation clinics, health counseling, and emergency injury and disease treatment. In 2022, a total of 36 people attended a health lecture held in the infirmary.

Service system	Health Center: Advanced Semiconductor Engineering Inc. Clinic providing special health insurance
Professional assistance	Resident Physicians: Labor Health Service Physicians and Specialized Occupational Medicine Specialists
Self-inspection	Health aspect: Brief Symptom Rating Scale Work-Level: Occupational Aptitude Test Life level: DISC personality test Psychological level: pressure means quantity gauge
Information sharing	Health updates: Regularly post articles on the bulletin board and the company's internal website to promote the latest health information. During the COVID-19 epidemic that broke out in 2020, the company immediately updated the relevant epidemic prevention information and released announcements to strengthen epidemic prevention.
Event handling	Handling annual employee health check-ups, administering public influenza vaccines, health promotion lectures, maternal health protection, health consultation clinics, and smoking cessation promotion.

Activities handled by the infirmery of ASECL in the past three years: Health Lectures

Date	Lecture Title	Total hour number	Lecturer	Outline	Number of people
2020					
2020/6/30	Stress Relief in the Workplace- From Mindfulness Breathing to Stress Adjustment	1	Min-Sheng General Hospital Counseling Psychologist Liu Jiawen	<ul style="list-style-type: none"> Introduction to Mindfulness How to adapt to stress Mindfulness breathing experience 	14
2020/9/23	Dietary nutrition and common discomfort care during pregnancy	1	Dianthus MFM Center Yi RenObstetrics and Gynecology attending physician	<ul style="list-style-type: none"> Dietary recommendations during pregnancy Common discomfort during pregnancy Care for discomfort during pregnancy 	7
2021					
2021/10/13	Shoulder and neck soreness	1	Ten-Chan General Hospital Physiotherapist Qiu Zhiguan	<ul style="list-style-type: none"> Common Diseases in the Workplace Posture precautions in daily life Principles of movement Point massage 	42
2021/12/7	Prevention of dementia and three-high nutritional care	1	Landseed International Hospital Nutrition Department Chen Meifang	<ul style="list-style-type: none"> Dementia classification Prevention of dementia diet Diabetes/hypertension/ hyperlipidemia diet 	17
2022					
2022/7/27	Lower Back Pain Traditional Chinese Medicine Treatment and Exercise Guidance	1	Landseed International Hospital Sports Medicine Lecturer Chen Mingxin	<ul style="list-style-type: none"> Diagnostic classification of lower back pain Causes of lower back pain TCM treatment of lower back pain Lower back pain exercise guidance 	16
2022/11/23	Modern diseases of civil disease_ xerophthalmia	1	Ten-Chan General Hospital Ophthalmologist	<ul style="list-style-type: none"> Introduction to xerophthalmia Common symptoms of xerophthalmia Treatment of xerophthalmia Prevention of xerophthalmia 	20

Activities handled by the infirmery of ASECL: Vaccine administration

Date	Item	Number of people
2021/11/19	Public-funded influenza vaccine administration	41
2022/11/16	Public-funded influenza vaccine administration	50

Social Care and Mutual Benefit

ASECL pays attention to the operational performance of its business and actively invests in social welfare. Adhering to the spirit of rescuing and helping others, we provide donations from the company and employees every year, participate in and support various public welfare activities, and practice our corporate social responsibility in the local area. In terms of social participation and public welfare investment, including care for disadvantaged students, social participation, and education and industry school cooperation, ASECL hopes to give back to the local community through the power of the enterprise so that more people in need can receive love and care, creating a harmonious and prosperous society. The total amount of investment in social and student care, as well as cooperation with industry and academia amounted to NT \$9,648,157 in 2022.

Care for disadvantaged students

Many families are unable to afford the living expenses of their children in school due to low incomes, major life changes, single-parent households, etc., resulting in students missing out on many opportunities for education and change. ASECL implements its corporate social responsibility by providing cash of NT\$50,000 per semester to neighboring schools, with subsidies ranging from elementary to high schools. A total of 11 schools provide disadvantaged children's scholarships and grants, allowing impoverished students to benefit substantially, encouraging them to work hard in their studies, building confidence, not limiting their development opportunities due to family factors, and assisting in the smooth completion of their studies.

The list of schools that receive subsidies from ASECL is as follows. We hope to encourage students to have the same spirit of giving back to society when they grow up thanks to this scholarships.

- Elementary School: Yuansheng Elementary School, Zi-Li Elementary School, Taoyuan Municipal Sing Ren Elementary School, Neili Primary School
- Junior High School: Neili Junior High School, Da Luen Junior High School, Long Xing Junior High School, Tzu Chiang Junior High School, Long Gang Junior High School, DongSing Junior High School
- Senior High School: Taoyuan Municipal Nei-Li Senior High School



Yuansheng Elementary School - Awards and Encouragement for Children Benefited from the Disadvantaged Subsidy in the School



Neili Junior High School - Awards and Encouragement for Children Benefited from the Disadvantaged Subsidy in the School



Thank you card for students who benefit from the school's disadvantaged and poverty alleviation subsidy

In addition to encouraging students through subsidies, ASECL also considers the immediate needs of disadvantaged students. Many students come from disadvantaged families, and basic food and clothing may be a burden for them. Chung-Li collaborates with neighboring schools to establish a food bank on the campus, and gathers forces from students, communities, and the industry to subsidize daily necessities and help impoverished students.

ASECL allocates daily necessities worth NT\$50,000 per quarter to donate to partner schools. Disadvantaged students in Neili, Dong Sing, and Long Gang junior high schools, are provided with cans, drinks, cereals, and household goods, reducing the burden on low-income families and provide more living resources for children. This is more than just a material subsidy; it can give children spiritual support, help them receive help and companionship on their journey of learning and growth, and make their road ahead slightly easier.



Friends School Food Bank Donated Supplies – Dong Sing Junior High School



Friends School Food Bank Donated Supplies – Neili Junior High School



Friends School Food Bank Donated Supplies – Long Gang Junior High School



Friends School Food Bank Donated Supplies – Long Sing Junior High School

Social participation

In the spirit of fulfilling corporate social responsibility, ASECL distributes daily necessities worth NT\$30,000 before each festival every year, with a total of NT\$360,000 donated to neighbors around the factory. In the four neighborhoods of Zhongyuan Village, Fuxing Village, Fuhua Village, and Xinghua Village, the village chief and staff distributed daily necessities packages to over a hundred vulnerable families around the Chung-Li factory area on the eve of the Spring Festival, Dragon Boat Festival, and Mid-Autumn Festival, providing local residents with canned goods, toilet paper, dry grains, and other necessities. Through practical action, ASECL demonstrates its commitment to actively caring for the local community, filling every corner of the neighborhood with warmth, and making the residents who receive supplies feel supported by ASECL.



Good Neighborhood Low-income Household Goods Kit – Donation of Living Supplies for the Dragon Boat Festival



Charity Institution Donation

In addition to caring for vulnerable people in the local community, ASECL also adheres to the spirit of active care and is committed to cooperating with local social welfare groups in Taoyuan. As the operation of social welfare institutions is not easy, the company often assists physically and mentally disabled individuals in environments where human, material, and financial resources are relatively scarce. Chung-Li purchases necessary daily necessities such as mattresses, toilet paper, toothbrushes, diapers, etc. for Taoyuan District social welfare institutions such as the Chensenmei Foundation, Chergshin Love Home, Kindgarden Love Home, and Huashan Foundation Chung-Li Station every season, providing more comprehensive resources, guidance, and care for students in social welfare institutions.

When transporting materials and encouraging those accommodated, colleagues at Chung-Li witness the innocent smiles of these recipients and their progress in completing small actions of self-care, realizing the value of every life and feeling the strong efforts of college students in their fight in life. Although the donation of materials is to temporarily alleviate the short-term needs of social welfare institutions, ASECL continues to support and invest in helping the institutions improve the housing environment, cultivate residents' abilities to adapt, and find their own feet in life.

Charity activity

In fulfilling its corporate social responsibility, ASECL not only donates materials to the local community, but also works together with different stakeholders, organizes long-term activities, and environmental restoration to grow together with the local community.

To enable young students to participate in public welfare services in their spare time, ASECL and the Neili Junior High School Orchestra held a public welfare performance event at the Chensenmei Welfare Foundation. The Foundation mainly accommodates individuals with severe and multiple intellectual disabilities, and trains them to adapt to society through educational maintenance, vocational training, and life counseling. In addition to regular material donations, ASECL also collaborated with the Neili Junior High School Orchestra for a public welfare music performance at the Tobias Social Welfare Foundation. They collaborated with residents of the institution to make handmade crafts as well. In addition to allowing residents to enjoy a feast of music, they planted seeds of "altruism" and "care" in their hearts by involving them in public welfare services.

ASECL also encourages students to practice love and care through actions through the establishment of special projects, spreading the idea of kindness to society. The "Romantic Route 3" is a special health walk event held by the charitable organization, the Syin-Lu Social Welfare Foundation, at Neili Junior High School. The event combines outdoor activities with public welfare, not only allowing students to learn about team spirit and challenge their physical strength and perseverance through a walking experience, but also raising funds for the foundation by walking. Each kilometer walked adds NT\$10 to the donation. ASECL inspires students to help others and be grateful by providing subsidies and support.

To further social charitable causes, strengthen local friendly relations, and spread warmth and care to every corner of society, ASECL, in conjunction with the Taoyuan City Veterans Service Office, assists in taking care of the families of veterans who have encountered difficulties in their lives, gone through major changes, or are from low- or middle-income households, and regularly provides care to military dependents such as those who are disabled, elderly, and orphans.



ASECL and Neili Junior High School Jointly held the "Public Welfare Music Performance" Activity / Students and residents collaborate to complete handicrafts



Taoyuan Veterans Service Office-
"Warmth delivered in the Cold Winter" Activity

As Taiwan is becoming an aging society, ASECL has long cooperated with its parent company, ASEH, and the Chang Yao Hong-Ying Social Welfare and Charity Foundation to organize "auspicious learning" activities mainly for the elderly, providing rich and diverse healthcare and leisure activities for senior citizens. Through a diverse curriculum design that includes healthcare courses, and organize outdoor teaching activities to communicate and establish mutual emotions, we assist elderly people in enjoying their later years with a positive and reassuring attitude.

2022 Auspicious Learning Activity



Opening Ceremony



Outdoor Teaching- Yingge Ceramic Museum



Closing Ceremony 1



Closing Ceremony 2

In terms of public welfare participation, in addition to the aforementioned activities, ASECL also assists with elderly care center activities in surrounding neighborhoods; for example, by providing meals. ASE also collaborated with Common Wealth Magazine to donate 100 Good Books to the Zhang Jingyu Library of Chung Yuan Christian University to mark the magazine's 50th anniversary, increasing the library's collection for students' use. The renovation of the Huangxi River around the factory area has also received support and recognition from the Taoyuan Municipal Government through the injection of renovation funds and the sponsorship of equipment and materials for patrol teams.



Fuhua Lane Caring Point Programme



Book given to Zhang Jingyu Library of Chung Yuan Christian University



Letter of Appreciation for the Improvement of Water Quality in Huangxi River






Industry-University Cooperation

ASECL place great importance on the cultivation and development of semiconductor talent. Since 2014, it has been deeply involved in colleges and universities, working together on various industry-university cooperation projects. Cooperation between industry and academia not only provides opportunities for internships in universities and enterprises, but also cultivates students' professional knowledge and allows them to directly experience practical applications in the workplace, thereby encouraging students to deepen their professional abilities. Furthermore, ASECL has collaborated with local colleges and universities in Taoyuan to establish a specialized class on semiconductor assembly design, jointly creating more diverse cooperation methods. Combining theoretical knowledge and industry practice, we have integrated learning and application, achieving a win-win between industry and universities. ASECL also collaborated with various well-known universities and colleges on research projects, introducing the knowledge and creativity of academic research, bringing academic research results into the industry, and solving industry problems. Through professional technology such as AI to assist engineering personnel in decision-making analysis, we have increased production capacity through human-machine collaboration and saving personnel time, improving product yields and maximizing human resources.



The following is an explanation of the cooperation between industry and universities by ASECL:

In terms of professional internships, in recent years, in response to the growth trend of ASEH, there has been a high demand for talent. In 2022, we expanded our cooperation with various colleges and universities, providing more internship opportunities related to semiconductor equipment and IT positions, and cultivated more outstanding professional talent in different fields.

Title of the cooperation between industry and universities	Description	The benefits for ASE
 Semiconductor equipment internship	Develop students' professional knowledge of packaging equipment in advance; Such as basic machine operation skills/advanced machine modification/repair/parameter adjustment, etc.	In 2022, a total of 26 campus internship instruction lectures were held, involving 30 departments and a total of 1,107 students. A total of 62 internship students participated in the internship. In terms of employment, over 85% of interns remain in office, and students seamlessly integrate into employment after graduation.
 Information technology internship	The internship focuses on programming, system analysis and design, software testing and maintenance, database management, and project execution, with the goal of enabling students to develop professional practical skills during the internship phase.	This year, five campus internship instruction lectures were held, with a total of 336 students and 43 internship students participating. As of the end of 2022, a total of 14 students completed their internships (29 are still in the process of internships), and seven students have become regular employees; a conversion rate of over 50%. Those who become regular employees can directly enter their posts.
 Semiconductor Assembly Design Special Class	To cultivate students' professional abilities in assembly design and familiarize themselves with the thinking of ASE drawing, ASECL collaborated with local Taoyuan and indicator universities to establish a specialized class for semiconductor assembly design for the first time. Students can learn design software for semiconductor assembly and system level assembly in the course, enabling them to obtain professional knowledge and application of design software before graduation.	In 2022, a total of 17 students participated in the formal employment interview, and 9 were admitted, with a probationary rate of over 50%. The students admitted can directly become an regular employment.

Two main aspects were covered in the collaborative research project between ASECL and junior college: process technology and information technology. An explanation of process technology is as follows:

Cooperative schools	Project Name:	Investing funds	Participating professors and students	Expected effect
National Central University	Development of New High Heat Dissipation Interface Materials	USD 20,000	4	Achieve 1.5 times the heat transfer value in the manufacturing process
National Cheng Kung University	Component placers capable of handling dual layer placement areas and non-placement areas within system-level packaging	USD 40,000	3	Improve product design quality and shorten computation time to achieve maximum efficiency
National Taiwan University	Quality prediction and predictive maintenance of semiconductor packaging overflow	USD 38,000	4	Optimize equipment production program parameters and develop a systematic process
Chung Yuan Christian University	Research on reducing the total WIP day of the process	USD 38,000	4	Reduce the total WIP day of the previous process

In terms of industrial and academic projects in information technology, since 2017, ASECL has collaborated with National Taiwan University, National Tsing Hua University, National Central University, and the private Chung Yuan Christian University to carry out industrial and universities cooperation projects. The main topics are parameter optimization, defect detection, and intelligent maintenance of machines.

Project Name	Investing funds	Participating professors and students	Expected effect
Optimization of Process Parameters for IC Assembly Two Solder Joint	USD 423,000	34	Save 19.2% of welding time and reduce downtime by 46.5%.
Wafermap wafer defect detection			Reduce manual visual defect inspection time by 50%.
Intelligent Machine Predictive Maintenance			-

Appendix

GRI Content Index

Statement of use	Advanced Semiconductor Engineering Inc. Chung-Li Branch has reported in accordance with the GRI Standards for the period from 1 January 2022 to 31 December 2022.
GRI used	GRI 1: Foundation 2021
Applicable GRI Standard	NA

General Disclosures

GRI Number	Disclosure Title	Corresponding Chapter	Page
GRI 2: General Disclosure 2021			
The organization and its reporting practices			
GRI 2-1	Organizational details *	Report Overview and Issuance Frequency	P. 2
		About us	P. 10
		Business Scope	P. 10
GRI 2-2	Entities included in the organization's sustainability reporting *	Reporting Boundaries and Coverage	P. 2
GRI 2-3	Reporting period, frequency and contact point *	Contact Information	P. 3
GRI 2-4	Restatements of information *	Report Overview and Issuance Frequency	P. 2
GRI 2-5	External assurance *	ESG Responsible departments and methods of quality management	P. 2
*Note: Omitted reasons are not accepted.			
Activities and workers			
GRI 2-6	Activities, value chain and other business relationships	Business Scope	P. 10
GRI 2-7	Employees	The Structure of Talent	P. 82
GRI 2-8	Workers who are not employees	The Structure of Talent	P. 82

GRI Number	Disclosure Title	Corresponding Chapter	Page
Governance			
GRI 2-9	Governance structure and composition	ASECL is a member of ASEH. Please refer to ASEH's EGS report for details on board management.	
GRI 2-10	Nomination and selection of the highest governance body		
GRI 2-11	Chair of the highest governance body		
GRI 2-12	Role of the highest governance body in overseeing the management of impacts		
GRI 2-13	Delegation of responsibility for managing impacts	Corporate Sustainability Committee Risk Management Committee	P. 30 P. 34
GRI 2-14	Role of the highest governance body in sustainability reporting		
GRI 2-15	Conflicts of interest		
GRI 2-16	Communication of critical concerns		
GRI 2-17	Collective knowledge of the highest governance body	ASECL is a member of ASEH. Please refer to ASEH's EGS report for details on board management.	
GRI 2-18	Evaluation of the performance of the highest governance body		
GRI 2-19	Remuneration policies		
GRI 2-20	Process to determine remuneration		
GRI 2-21	Annual total compensation ratio		
Strategy, policies and practices			
GRI 2-22	Statement on sustainable development strategy	Letter from the General Manager Sustainability Commitment and Strategy	P. 4 P. 28
GRI 2-23	Policy commitments	Commitment to Sustainable Development Policies	P. 29
GRI 2-24	Embedding policy commitments	Commitment to Sustainable Development Policies	P. 29

GRI Number	Disclosure Title	Corresponding Chapter	Page
GRI 2-25	Processes to remediate negative impacts	Whistleblowing and Advice Channels	P. 34
GRI 2-26	Mechanisms for seeking advice and raising concerns	Whistleblowing and Advice Channels	P. 34
GRI 2-27	Compliance with laws and regulations	Compliance with laws and regulations	P. 33
GRI 2-28	Membership associations	Participation in external associations and memberships	P. 17
Stakeholder engagement			
GRI 2-29	Approach to stakeholder engagement	Stakeholder Engagement	P. 19
GRI 2-30	Collective bargaining agreements	Human Rights and Labor Rights Protection	P. 88

Material Topics Disclosure

GRI Number	Disclosure Title	Corresponding Chapter	Page
Material Topics 2021			
GRI 3-1	Process to determine material topics *	Stakeholder Engagement	P. 19
GRI 3-2	List of material topics *	The process of identifying material topics	P. 23-26
GRI 3-3	Management of material topics	See material topics for details	
*Note: Omitted reasons are not accepted.			
GRI Number	Disclosure Title	Corresponding Chapter	Page
Recruiting & Managing a Workforce			
GRI 3-3	Management of material topics	Employee Profile Distribution	P. 81
GRI 401-1	New employee hires and employee turnover	New Hire Employee Resignation and Retention	P. 84

GRI Number	Disclosure Title	Corresponding Chapter	Page
GRI 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees.	Welfare Measures	P. 89
GRI 401-3	Parental leave.	Maternity Leave Benefit	P. 76
Information Security Management			
GRI 3-3	Management of material topics	Information Security and Personal Data Risks	P. 36
GRI 418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Personal Data Protection Management Policy	P. 39
Sustainable Supply Chain			
GRI 3-3	Management of material topics	Sustainable Value Chain	P. 42
GRI 204-1	Proportion of spending on local suppliers	Sustainable procurement	P. 51
Product Lifecycle Management			
GRI 3-3	Management of material topics	"Product Lifecycle Management" Management Status	P. 54
Self-disclosure	Self-disclosure	"Product Lifecycle Management" Management Status	P. 55
Occupational Health and Safety			
GRI 3-3	Management of material topics	Care-free workplace environment	P. 95
GRI 403-1	Occupational health and safety management	Occupational health and safety management system	P. 96
GRI 403-2	Hazard identification, risk assessment, and incident investigation	Occupational safety hazard risk control	P. 100
GRI 403-3	Occupational health services	Workplace health services	P. 106
GRI 403-4	Worker participation, consultation, and communication on occupational health and safety.	Occupational health and safety management system	P. 96
GRI 403-5	Worker training on occupational health and safety.	Occupational health and safety education and training	P. 97

GRI Number	Disclosure Title	Corresponding Chapter	Page
GRI 403-6	Promotion of Worker Health	Health promotion care	P. 107
GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships.	Occupational safety hazard risk control	P. 100
GRI 403-8	Workers covered by an occupational health and safety management system.	Occupational health and safety management system	P. 96
GRI 403-9	Work-related injuries.	Statistics and analysis of occupational injury accidents	P. 104
GRI 403-10	Work-related ill health	Workplace health services	P. 107
Business Ethics			
GRI 3-3	Management of material topics	Ethical Corporate Management	P. 31
GRI 205-1	Operations assessed for risks related to corruption	Business Conduct and Ethics	P. 31
GRI 205-2	Communication and training about anti-corruption policies	Anti-Corruption Communication and Training	P. 32
GRI 205-3	Confirmed incidents of corruption and actions taken	Business Conduct and Ethics	P. 31
Greenhouse Gas Emissions			
GRI 3-3	Management of material topics	Greenhouse gas emissions	P. 67
GRI 305-1	Direct (Scope 1) GHG emissions	Greenhouse gas emissions	P. 68
GRI 305-2	Energy indirect (Scope 2) GHG emissions	Greenhouse gas emissions	P. 68
GRI 305-3	Other indirect (Scope 3) GHG emissions	Greenhouse gas emissions	P. 69
GRI 305-4	GHG emissions intensity	Greenhouse gas emissions	P. 69
GRI 305-5	Reduction of GHG emissions	Greenhouse gas emissions ASECL's Net-Zero Vision and Milestones	P. 69 P. 61

GRI Number	Disclosure Title	Corresponding Chapter	Page
GRI 305-6	Emissions of ozone-depleting substances (ODS)	Air Pollution Control	P. 71
GRI 305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other	Air Pollution Control	P. 71
Energy Management			
GRI 3-3	Management of material topics	Energy Management	P. 62
GRI 302-1	Energy consumption within the organization	Energy Management	P. 63
GRI 302-2	Energy consumption outside of the organization	The information for the reporting year is not yet completed, so ASECL has disclosed it based on greenhouse gas inventory Scope 3.	
GRI 302-3	Energy intensity	Energy Management	P. 63
GRI 302-4	Reduction of energy consumption	Energy Management	P. 63
GRI 302-5	Reductions in energy requirements of products and services	The information for the reporting year is not yet completed, so ASECL is expected to conduct this indicator disclosure after carbon footprint inventory is completed in 2024.	
Waste Management			
GRI 3-3	Management of material topics	Waste Management	P. 75
GRI 306-1	Waste generation and significant waste-related impacts	Waste Management	P. 75
GRI 306-2	Management of significant waste-related impacts	Waste Management	P. 76
GRI 306-3	Waste generated.	Waste Management	P. 76
GRI 306-4	Waste diverted from disposal	Waste Management	P. 77
GRI 306-5	Waste directed to disposal	Waste Management	P. 77
Water Resources Management			
GRI 3-3	Management of material topics	Water Resource Management	P. 72

GRI Number	Disclosure Title	Corresponding Chapter	Page
GRI 303-1	Interactions with water as a shared resource.	Water Resource Management	P. 72
GRI 303-2	Management of water discharge-related impacts.	Water Resource Management	P. 73
GRI 303-3	Water withdrawal.	Water Withdrawal	P. 73
GRI 303-4	Water discharge.	Water Withdrawal	P. 74
GRI 303-5	Water consumption.	Water Withdrawal	P. 74

Other Material Topic Disclosure

GRI Number	Disclosure Title	Corresponding Chapter	Page
GRI 201:Economic Performance 2016			
GRI 201-2	Financial implications and other risks and opportunities due	Four Core TCFD pillars	P. 56
GRI 201-3	Defined benefit plan obligations and other retirement plans	Welfare Measures	P. 89
GRI 202:Market Presence 2016			
GRI 202-2	Proportion of senior management hired from the local community	Diversified and plentiful employment opportunities	P. 82
GRI 203:Indirect Economic Impacts 2016			
GRI 203-1	Infrastructure investments and services supported	Social care and mutual benefit	P. 109
GRI 308: Supplier Environmental Assessment 2016			
GRI 308-1	New suppliers that were screened using environmental criteria	Supplier Risk Assessment	P. 45
GRI 402: Labor/Management Relations 2016			
GRI 402-1	Minimum notice periods regarding operational changes	Human rights and labor rights protection	P. 88

GRI Number	Disclosure Title	Corresponding Chapter	Page
GRI 404: Training and Education 2016			
GRI 404-1	Average hours of training per year per employee	Multiple training channels	P. 92
GRI 404-2	Programs for upgrading employee skills and transition assistance programs	Human rights and labor rights protection	P. 88
GRI 404-3	Percentage of employees receiving regular performance and career development reviews	Performance and career development	P. 94
GRI 405: Diversity and Equal Opportunity 2016			
GRI 405-1	Diversity of governance bodies and employees	The Structure of Talent	P. 82
GRI 406: Non-discrimination 2016			
GRI 406-1	Incidents of discrimination and corrective actions taken	Human rights and labor rights protection	P. 88
GRI 408: Child Labor 2016			
GRI 408-1	Operations and suppliers at significant risk for incidents of child labor.	Human rights and labor rights protection	P. 88
GRI 409: Forced or Compulsory Labor 2016			
GRI 409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human rights and labor rights protection	P. 88
GRI 414: Supplier Social Assessment 2016			
GRI 414-1	New suppliers that were screened using social criteria	Supplier Risk Assessment	P. 45
GRI 414-2	Negative social impacts in the supply chain and actions taken	Supplier Risk Assessment	P. 45

SASB Index

SASB Code	Accounting metric	Category	Disclosure Topic	Corresponding Chapter
Topic: Greenhouse Gas Emissions				
TC-SC-110a.1.	(1) Gross global Scope 1 emissions (2) Total emissions from perfluorinated com-pounds	Quantitative	<ul style="list-style-type: none"> Total Gross global Scope 1 emissions: 2642.9544 tCO₂e Total emissions from perfluorinated compounds: 657.5580 tCO₂e 	Greenhouse Gas Emissions
TC-SC-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	ASE annually commissions third-party validation agencies to perform ISO14064-1: 2018 data validation and advocates the Science Based Targets initiative (SBTi).	ASECL's Net-Zero Vision and Mile-stones
Topic: Energy Management in Manufacturing				
TC-SC-130a.1	Total energy consumed, percentage grid electricity and percentage renewable.	Quantitative	<ul style="list-style-type: none"> Total electricity consumption in 2022 was 605,907.16MWH. Renewable energy accounted for 0.7%. 	Energy Management
Topic: Water management				
TC-SC-140a.1	Total water withdrawn, total water consumed, percentage of each in regions with High or Extremely High baseline water stress	Quantitative	The proportion of total water intake in areas under water resource pressure is 0%. Water consumption 0%.	Water Resource Management
Topic: Waste Management				
TC-SC-150a.1	Amount of hazardous waste from manufacturing, percentage recycled	Quantitative	The amount of hazardous waste generated in 2022 was 3464.9325 tons. Recovery rate: 44.5365%.	Waste Management
Topic: Employee Health & Safety				
TC-SC-320a.1	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards	Discussion and Analysis	Propose improvements to the environmental health and safety department, encourage awareness of work-related injuries, and conduct regular inspections by various departments.	Care-free workplace environment
TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee safety and health violations	Quantitative	No financial losses due to viola-tions of relevant laws in 2022.	Compliance with laws and regulations

SASB Code	Accounting metric	Category	Disclosure Topic	Corresponding Chapter
Recruiting & Managing a Global & Skilled Workforce				
TC-SC-330a.1	Percentage of employees that are foreign nationals and located offshore	Quantitative	Foreign workers and overseas employees accounted for 25.07% of the total number of employees in ASECL.	The Structure of Tal-ent
Topic: Product Lifecycle Management				
TC-SC-410a.1	Percentage of products by rev-enue that contain IEC 62474-declarable substances	Quantitative	ASECL currently complies with IEC 62474, with a product rev-enue ratio of 100%.	"Product Lifecycle Management" Management Status
TC-SC-410a.2	Processor energy efficiency at a system level for: (1) servers, (2) desktops, and (3) laptops	Quantitative	ASE is a semiconductor assem-bly and testing service company that does not calculate the over-all energy efficiency of proces-sors due to industry and prod-uct characteristics.	n/a
Topic: Materials Sourcing				
TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	Discussion and Analysis	To ensure the stable supply of key raw materials, ASECL regu-larly evaluates suppliers' on-time delivery achievement rate, customer required deliv-ery achievement rate, and ser-vice quality standards, and provides timely guidance and correction of supplier im-provements, adjusts supplier selection strategies, and im-proves the sources of second-ary suppliers to ensure stable delivery of raw materials. The EHS&GP team of Chung-Li conducts audits of key raw ma-terials, and only materials that meet the hazardous substance management rules of Chung-Li can be used in the plant area.	Sustainable Supply Chain
Topic: Intellectual Property Protection & Competitive Behavior				
TC-SC-520a.1	Total monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	Quantitative	No financial losses caused by anti-competitive behavior occurred at ASECL in 2022.	Ethical Corporate Management

Activity metric

SASB Code	Accounting metric	Category	Disclosure Topic	Corresponding Chapter
TC-SC-000.A	Total production	Quantitative	Please refer to ASEH's annual report https://ir.aseglobal.com/c/ir_reports.php	About this Report
TC-SC-000.B	Percentage of production from owned facilities	Quantitative	Our company's products are 100% produced by Chung-Li factories.	n/a

AA1000 External Assurance Statement



確信聲明書

日月光半導體製造股份有限公司中壢分公司永續報告書

台灣德國北德技術服務股份有限公司(簡稱 TUV NORD)接受日月光半導體製造股份有限公司中壢分公司(以下簡稱日月光中壢廠)的委託，根據 AA1000 保證標準第三版與 GRI 永續性報導準則 (GRI 準則 2021 年版) 及相關認證標準，執行 2022 年永續報告書查證(以下稱永續報告書)。

聲明書範疇及依據標準

- 1) 確信範疇與日月光中壢廠 2022 年永續報告書揭露範疇一致，報導期間為 2022 年 1 月 1 日至 2022 年 12 月 31 日。
- 2) 依照 AA1000 保證標準第三版第一應用類型查證日月光中壢廠遵循 AA1000 當責性原則的要求，不包含對於報告書揭露的資訊/數據之可信賴度的查證。

預期使用者

本聲明書的預期使用者為日月光中壢廠的利害關係人。

保證型態與等級

依照 AA1000 保證標準第三版的第一應用類型，中度保證等級的要求。

意見聲明

日月光中壢廠遵循 GRI 永續報導準則 AA1000 包容性、重大性、回應性與衝擊性的相關原則，永續報告書內容呈現了高階主管的承諾、利益相關者的需求與期待，完成了有效的議會並達成永續發展績效指標，TUV NORD 確信其對於環境、社會及治理等資訊的呈現是正確的。

查證方法

我們的查證服務係根據前述保證準則與 TUV NORD 永續報告書查證協定規定，就永續報告書的查證進行規劃與執行。

我們的查證包含下列活動：

* 如報告中提及，收集相關績效指標的客觀證據。

* 確信本地或國家法規的預期；公眾觀點及/或專家意見中提出的國際標準與此類一般性考量相關事項。

* 文件於 GRI 準則應用需求背景下審查紀錄與報告內容評估。

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* 與經理級和相關工作人員就公司對於利害關係人關注議題進行訪談。

* 與涉及永續發展管理、收集資訊與報告準備的相關人員訪談。

* 檢閱重要的組織發展及檢閱內外部審計結果。

* 針對 AA1000 (2018)當責性原則及其它認證標準要求進行審查。

結論

報告書中針對包容性、重大性、回應性及衝擊等 AA1000 當責性原則查證結果如下：

包容性

日月光中壢廠透過邀請高階主管與永續發展委員會小組，蒐集利害關係人關注議題，鑑別出六類利害關係人及其關注之議題，經利害關係人的議會、永續發展委員會及專家進行多方論證，決定揭露10項包含經濟、環境及人的重大議題。

重大性

日月光中壢廠依據GRI準則的指引，綜合考量對公司的影響程度，完整揭露公司的重大風險及機會並界定出報告書重大主題優先順序。

回應性

日月光中壢廠的永續報告書清楚說明永續性與組織策略的關係及重大主題對應的績效指標及其達成狀況，充分回應利害關係人關注的重大議題。

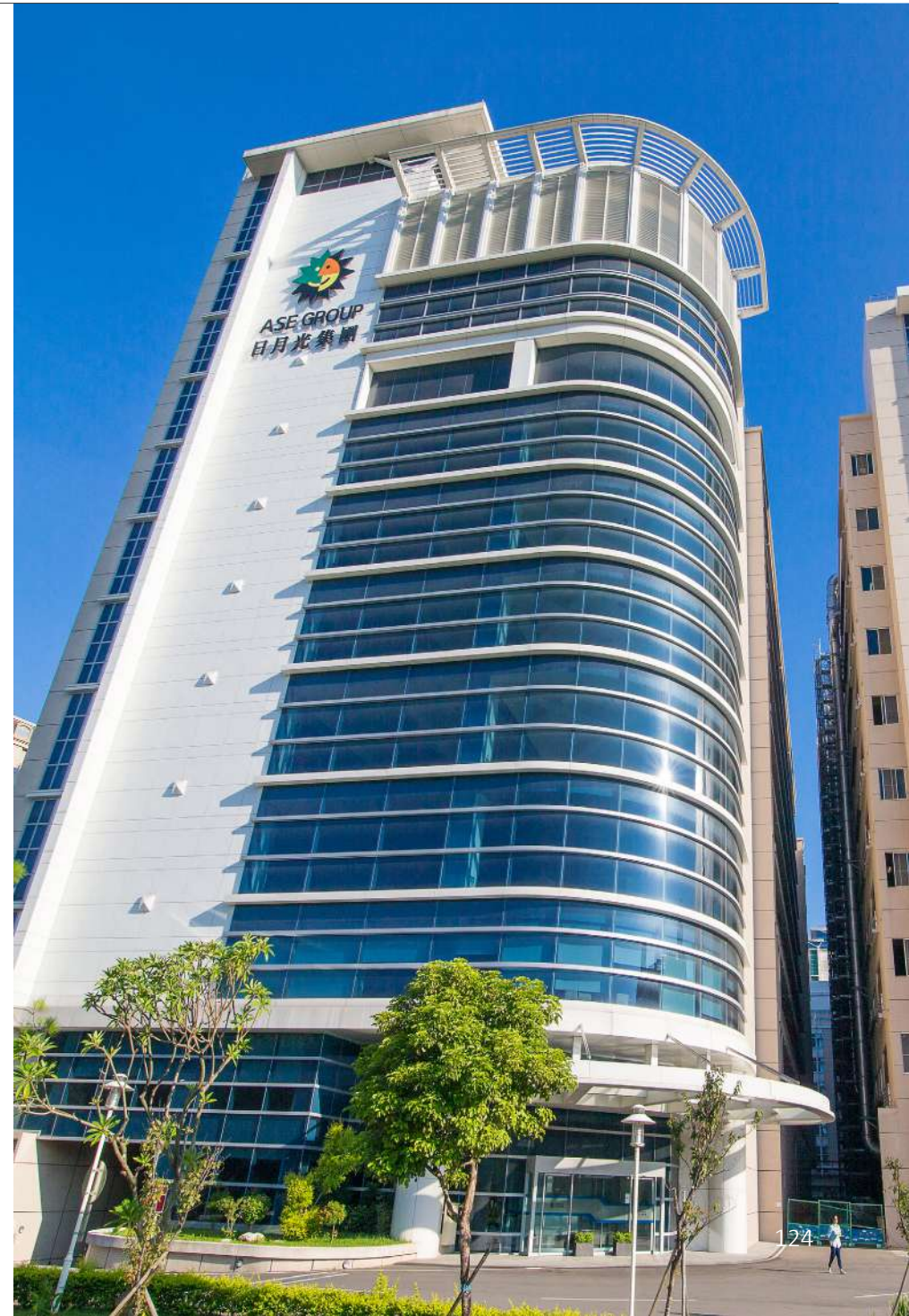
衝擊

日月光中壢廠永續報告書完整的鑑別出重大主題，足以反映組織在經濟、環境及人群的顯著衝擊，並已建立穩健的流程以監督、量測該衝擊的影響性，透過公司的治理建立短、中、長期的因應策略規劃。

GRI 永續報告準則

日月光中壢廠的永續報告書，依據 GRI 1-GRI 3 通用準則及 GRI 200 系列、GRI 300 系列及 GRI 400 系列的主題準則，符合應揭露事項的要求。

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