



# 2023 ESG

SUSTAINABILITY REPORT



## Contents

### Foreword

- About the Report
- A Message from the Chairman
- 2023 Achievements

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

## Contents

### Foreword

About the Report	3
A Message from the Chairman	4
2023 Achievements	5

### CH 1 Operations and Governance

1.1 About OSE	8
1.2 Sustainable Practice	12
1.3 Stakeholder Engagement and Materiality Analysis	18

### CH 2 Honesty and Integrity

2.1 Corporate Governance	27
2.2 Ethical Operations	38
2.3 Economic Performance and Tax Governance	41
2.4 Risk Management and Legal Compliance	43

### CH 3 Environmental Sustainability

3.1 Environmental Responsibility and Commitment	52
3.2 Climate Change and GHGs Management	55
3.3 Water Resources Management	64
3.4 Waste Management	67

### CH 4 Supply Chain and Product Management

4.1 Sustainable Supply Chain	71
4.2 Customer Relationship Management	76
4.3 Product Quality and Safety	79
4.4 Innovation Research and Development	81

### CH 5 Sustainable Talent Management

5.1 Sustainable Talent Management	86
5.2 Friendly Workplace	94
5.3 Talent Development and Education	99
5.4 Occupational Health and Safety	106

### CH 6 Inclusive Community

6.1 Local Communities	116
6.2 Youth Empowerment	119

### Appendix

Appendix I GRI Standard Index	121
Appendix II SASB Index	124
Appendix III TWSE Industrial Sustainability Disclosure Index-Semiconductor	125
Appendix IV Taiwan Climate Information Disclosure Index for Listed Companies	126
Appendix V Summary of Selected Subject Matter Information for Chinese Report	127
Appendix VI Independent Limited Assurance Report for Chinese Report	128





## Contents

### Foreword

#### • About the Report

#### • A Message from the Chairman

#### • 2023 Achievements

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

## About the Report

GRI 2-2~2-5

In response to the United Nations' Sustainable Development Goals (SDGs) and the key sustainability issues, Orient Semiconductor Electronics, Ltd. (OSE) adheres to the goals of protecting the environment, caring the society, and achieving good corporate governance. OSE complies with international reporting standards and aims to present OSE's sustainability issues truthfully, hoping to demonstrate OSE's dedication of fulfilling our corporate social responsibilities, to demonstrate our spirits and actions of sustainability, and to effectively answer to our stakeholders' major concerns.

### The Scope of the Report

The disclosed scope of this report includes OSE's guidelines and actions in the aspects of economy, governance, society, and the environment for the year 2023 (from Jan.01 to Dec. 31). Except for the financial figures in the economic performance section, which are based on the consolidated financial statements certified by PricewaterhouseCoopers (PwC) Taiwan, the disclosed scope included all the OSE's locations of operations in the Nanzih Technology Industrial Park. More entity of OSE enterprise group will be included if necessary.

The factories of OSE in Nanzih Technology Industrial Park include Central 3rd Factory (HQ), Jin 3rd Factory (AT), East 3rd Factory (FP), Neihuan S. 1st Factory (IC), and Neihuan S. 2nd Factory (SSD).

### Reporting Guidelines

To make OSE sustainability report, we follow material sustainability reporting guidelines, which include:

1. The Standards of Global Reporting Initiative (GRI) 2021
2. The Corporation Rules Governing the Preparation and Filing of Sustainability Reports by Taiwan Stock Exchange (TWSE) Listed Companies
3. The Framework of the Task Force on Climate Related Financial Disclosures (TCFD)
4. The Semiconductor Industry Standard of the Sustainability Accounting Standards Board (SASB) 2018.

The index of the reporting guidelines and the corresponding pages are attached in the chapter Appendix. The information disclosed in the report also aligns with the United Nations' SDGs.

### Reporting Management

#### Internal Control

In accordance with OSE internal procedure, which has been put into internal control, the data and

information disclosed in this report provided by the responsible departments must be reviewed by the managers. All financial figures in the report are expressed in New Taiwan Dollars (NTD). The collection, measurement, and calculation methods of the disclosed data and information are mainly based on international or local regulations. If such regulations were not applicable, industry standards or practices will be adopted.

In accordance with the regulations, the 2023 OSE sustainability report is made by OSE ESG Integration Team, reviewed by department managers, and released after reported to OSE ESG Committee and the Borad of Directors.

#### External Assurance

##### • Report Assurance

This report has gone through limited assured by PwC Taiwan, in accordance with the Taiwan Standard on Assurance Engagements 3000 (TWSAE 3000) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" which is issued by the Accounting Research and Development Foundation of Republic of China (ROC). The limited assurance report is attached as an appendix to this report.

##### • International Management System Standards

To enhance the credibility of our disclosed data and information, we obtain certifications for the international management system standards like ISO 14001, ISO 45001, ISO 46001, ISO 50001, and ISO 14064-1, etc. Our data which has undergone third-party verification as well as those are estimated value has been noted in the appendix or in the chapter.

### Report Publication

OSE sustainability report publishes annually, and publication information is as follows:

Initial publication date: December 2018  
Publication of Previous Version: June 2023  
Publication of Current Version: June 2024  
Publication of Next Version: June 2025

### Contact Information and Feedback Chennel

At OSE, we adhere to the principles of integrity and honesty in every circumstance. If you have any opinion regarding the company or any feedback related to the company, please let us know:

ESG Committee

Address: No. 9, Central 3rd St., Nanzih Dist., Kaohsiung City, 811

TEL: 886-7-3613131

FAX: 886-7-3652441

Email: [csr@ose.com.tw](mailto:csr@ose.com.tw)

Company Website: [www.ose.com.tw](http://www.ose.com.tw)

ESG Website: <https://esg.ose.com.tw/>

## Contents

### Foreword

- About the Report

- **A Message from the Chairman**

- 2023 Achievements

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

# A Message From the Chairman GRI 2-22

## Chairman of OSE and ESG Committee

Though global COVID-19 pandemic slowed down in 2023, the continuation of global conflicts, the impact of inflation, geopolitical issues, revisions in semiconductor demand, memory production cuts and price increases, etc., have greatly affected the market and slowed down the recovery of the overall electronics industry. In addition, this year, the global sustainable standards, and disclosure content have become clear. How to respond to the sustainability trends and challenges will affect the company's operations and become a ticket for enterprises to enter the future. Thanks to the efforts of all OSE colleagues and the cooperation of all partners, OSE still maintained growth despite the challenges of the overall market slowdown and stricter regulations.

### Sustainability and Dual-Axis Transformation

In 2022, OSE established and operates the ESG Committee, actively responded to the United Nations Sustainable Development Goals (SDGs) and was committed to the five major aspects of sustainability: environment, corporate governance, social inclusion, information security and supply chain cooperation. This year, in addition to continuing to review our sustainability goals and actions, we also planned to make sustainability practices into our daily lives by deepening our colleagues' understanding. In an era of widespread use of digital tools, we prioritized the importance of digitization and hoped all colleagues can establish the ability to use digital tools to enhance corporate competitiveness and reduce the waste of paper and delivery. Through the dual-axis transformation goals of digitalization and sustainability, we aimed to jointly build a resilient and forward-looking enterprise.

### Sustainable Implementation of Targets

OSE carried out sustainable actions and achieve certain results in 2023, laying the foundation for the company's sustainable development. Looking ahead to benchmarks and sustainable trends at home and abroad, we knew there's a room for us to improve. We hoped that all departments continue to strive for excellence on this basis, refine their goals and actions, and implement sustainability into department operations.

- Our 2022 Sustainability Report was recognized a gold-level report by the TCSA Taiwan Corporate Sustainability Award.
- We attached great importance to information security and privacy protection and has passed the ISO 27001: 2022 information security management system certification.
- Introduced the spirit of DEI, focused on employee experience and talent cultivation, and continued to create an equal and inclusive workplace, which made us win the gold medal in the

National Training Quality System (TTQS) of the Ministry of Labor for the second consecutive year.

- In response to climate change and water resources issues, we built renewable energy self-generated equipment, planned to purchase renewable energy, and continued to carry out related water resource recycling construction.
- Continued to support various local and artistic activities in Kaohsiung, organized or participate in tree planting and beach cleaning events, and jointly promoted local culture and economy to benefit the local environment, community, and social culture.
- Strengthen corporate governance, abided by laws and ethics, and effectively communicate with our stakeholders.
- Expanded green and local procurement, reduced carbon emissions, connected with suppliers, and invested in cooperation and research and development of low carbon products.

In addition, we promoted automation, with the goal of becoming a green factory and a light-off factory, improving operating procedures and increasing production efficiency, to maintain our sustainable development targets and create new innovative methods in the face of various risks such as environment, product requirement and service model changes.

### Continuously Strengthen and Open Up the Future

Looking forward to 2024, the international situation, economic and environmental situation may still change and bring challenges and opportunities to OSE. We hoped to improve our business and sustainable actions by understanding the needs of stakeholders and adjust our operating strategies in a timely manner. Once again, I would like to thank all employees and stakeholders for their trust to OSE. We looked forward to working with everyone in a new year and moving forward to sustainability.



OSE Chairman and ESG  
Committee Chairman



## Contents

### Foreword

- About the Report
- A Message from the Chairman
- **2023 Achievements**

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

## 2023 Achievements

### Green Operation



**3.95 million kWh of electricity**  
**32,260 thousand NTD**

Promote 7 energy-saving and carbon-reduction plans, with an investment of approximately NT\$32,260,000, estimated to reduce electricity consumption by approximately 3.95 million kWh.

**175 thousand kWh of electricity**

We built self-generated solar power system and expects to expand in the future

### Social Inclusion

#### Gold Medal

We received Gold Medal from the evaluation of Talent Quality-management System (TTQS), and this is our second time of winning.

#### Silver Prize & Special Collection Prize

We continuously participated in "Youth Art - Great Harbor Corporate Sustainable Art Creation Project" and give the young artists our waste materials to create artworks. 2023, 2 artworks that OSE collected won the silver prize and special collection prize respectively.

#### 1,000 sheets

OSE, together with Business Weekly, Agency of Rural Development and Soil and Water Conservation of the Executive Yuan, and the Cite Foundation, jointly promoted a coloring activity for the soil and water conservation education. 1,000 sheets of coloring pages were provided to 5 elementary schools in Kaohsiung's coastal areas, to go with the soil and water conservation course of schoolteachers.

#### 1,100 people

To promote the concepts of food loving, saving, sharing, and donating. OSE has set up "Baobao Convenient Store" in our restaurants, to share offering or festival food with employees.

#### NTD \$4,692 thousand

OSE spent a total of NTD \$4,692,536 in employee training and development courses in 2023, and our employees have received a total of 95,999.5 hours of education.

#### 100%

- Labor physical checkup rate: 100%
- Badge of accredited healthy workplace coverage rate: 100%

#### 1%

High performance staff turnover rate: 1%

#### 0 incidents

No discrimination case

## Contents

### Foreword

- About the Report
- A Message from the Chairman
- 2023 Achievements

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

## 2023 Achievements

### Excellence in Governance

#### All

All our employee received against corruption education.

#### NT\$ 28,180 thousand

With the promotion of various projects, the amount of government subsidies has risen from NTD \$25,360 thousand, 2022, to NTD \$28,180 thousand, 2023.

#### 0 incidents

No customer privacy violation

#### 0 incidents

No corruption case

#### 0 incidents

No major penalty

#### 0 incidents

No major information security incident

#### ISO 27001: 2022

We have acquired ISO 27001: 2022 information security management system certification, September 2023.

#### 61

We had named 61 excellent suppliers in 2023, and invited them to our 2023 supplier conference.

#### 60

A total of 60 new suppliers have signed supplier integrity commitment or attached the commitment to the agreements.

### Sustainable Innovation

#### NTD \$386,747 thousand

We spent approximately NTD \$386,747 thousand in researching and developing 2023.

#### 2 patents

The directions of our research include saving materials, energy, and manpower. We apply for 4 patents around the globe, and 2 of them were granted.



## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

# Operation and Governance

## 1.1 About OSE

## 1.2 Sustainable Practice

## 1.3 Stakeholder Engagement and Materiality Analysis

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

# 1.1 About OSE

## Company Profile

GRI 2-1

Established in 1971, Orient Semiconductor Electronics Ltd. (OSE) provides IC packaging and testing services (IC) , as well as electronics manufacturing services (EMS). Our main operations are divided into the IC and EMS groups, and we have been long dedicated to providing diverse service solutions with high added value. Our quality and performance are oriented towards our customers and services. We strive for world-class customer satisfaction and aim to be a reliable business partner to our customers, to grow and thrive together.

<b>Name</b>	Orient Semiconductor Electronics Ltd.
<b>Established</b>	June 12, 1971
<b>Headquarters</b>	No. 9, Central 3rd St., Nanzi Dist., Kaohsiung City 811616, Taiwan (ROC)
<b>Paid-In Capital</b>	NTD \$7,354,883 thousand
<b>Number of employees</b>	5,202
<b>Main operations</b>	IC packaging and testing services (IC), electronics manufacturing services (EMS)
<b>business location</b>	OSE production bases mostly located in Taiwan, selling to US, China, and other major regions.



## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## OSE Milestones

<b>1971</b>	Establishes OSE with NT\$ 11 million in paid-in capital.
<b>1990</b>	New plant for finished products is completed and officially begins production.
<b>1994</b>	Issues common shares and is officially listed on the Taiwan Stock Exchange (TWSE) on April 20 as Class I common stocks.
<b>2002</b>	The Finished Products Group is awarded the "Highest Overall Customer Rating" in the Global Service Excellence Awards (SEAs) for EMS, which is held by prominent international EMS journal.
<b>2007</b>	IC Semiconductor Group obtains TS 16949 Certification .
<b>2008</b>	The AT Building is completed and begins operations; IC Semiconductor Group personnel and equipment move in and begin production.
<b>2010</b>	<ul style="list-style-type: none"> <li>Obtains OHSAS 18001 and Taiwan Occupational Safety and Health Management System (TOSHMS) Certification.</li> <li>Receives "Healthy Workplace Self-certification" from the Health Promotion Administration of Ministry of Health and Welfare ( MOHW ) .</li> </ul>
<b>2011</b>	Obtains Talent Quality-management System (TTQS) certification and is awarded silver.
<b>2013</b>	<ul style="list-style-type: none"> <li>Obtains CNS 15506:2011 Occupational Health and Safety Management Systems Certification</li> <li>The Finished Products Group obtains ISO 13485 Quality Certification.</li> </ul>
<b>2014</b>	The Finished Products Group obtains ISO/TS 16949 Quality Certification.
<b>2015</b>	The Finished Products Group establishes dedicated SSD plant with automated lines for testing and packing.
<b>2017</b>	Obtains ISO 14001:2015 Environmental Management Systems Certification.

<b>2019</b>	<ul style="list-style-type: none"> <li>The Finished Products Group officially becomes the electronics manufacturing services (EMS) Group.</li> <li>The EMS Group builds a new gaming graphics card plant.</li> <li>Establishes the Audit Committee.</li> <li>The EMS Group's SSD plant is certified by the RBA (Responsible Business Alliance) Validated Assessment Program (VAP).</li> <li>Obtains Talent Quality-management System (TTQS) certification and is awarded silver.</li> <li>OSE's EMS Group is evaluated by the Aerospace Industrial Development Corporation (AIDC) and recognized as a qualified supplier in accordance with the S300 Quality Management Standard</li> </ul>
<b>2020</b>	<ul style="list-style-type: none"> <li>Forms a strategic partnership and signs a contract with Chipbond Technology Corporation as they become a major stakeholders' (OSE over 10%).</li> <li>Obtains ISO 45001:2018 and CNS 45001:2018 certification for Occupational Health and Safety Management Systems.</li> </ul>
<b>2021</b>	<ul style="list-style-type: none"> <li>Obtains AS 9100 (includes compliance with ISO 9001) Aerospace Quality Management System Certification.</li> <li>Obtains a Sports Enterprise Certification from the Sports Administration of the MOE.</li> <li>Receives recognition from the Water Resource Agency of the MOEA for outstanding efforts in implementing water conservation guidance and improvement.</li> <li>Obtains Talent Quality-management System (TTQS) certification and is awarded silver.</li> </ul>
<b>2022</b>	<ul style="list-style-type: none"> <li>Obtains ISO 14064-1:2018 Greenhouse Gas Certification.</li> <li>The EMS Group obtains IATF 16949 certification.</li> <li>Receives first place in the 2022 Digital Transformation DTIH Strategic Blueprint Verification and Evaluation Awards.</li> <li>Both the HQ and AT buildings obtain ISO 50001:2018 Energy Management System Certification.</li> <li>EMS-5 plant obtained VAP certification from the RBA.</li> <li>Both the HQ and AT buildings obtain ISO 46001:2019 Water Efficiency Management System Certification.</li> </ul>
<b>2023</b>	<ul style="list-style-type: none"> <li>Officially filled out Carbon Disclosure Project (CDP) Questionnaire.</li> <li>Obtained ISO 27001: 2022 information security management system certification.</li> <li>Won the gold medal of Taiwan Talent Quality system (TTQS).</li> </ul>

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Main Products and Services

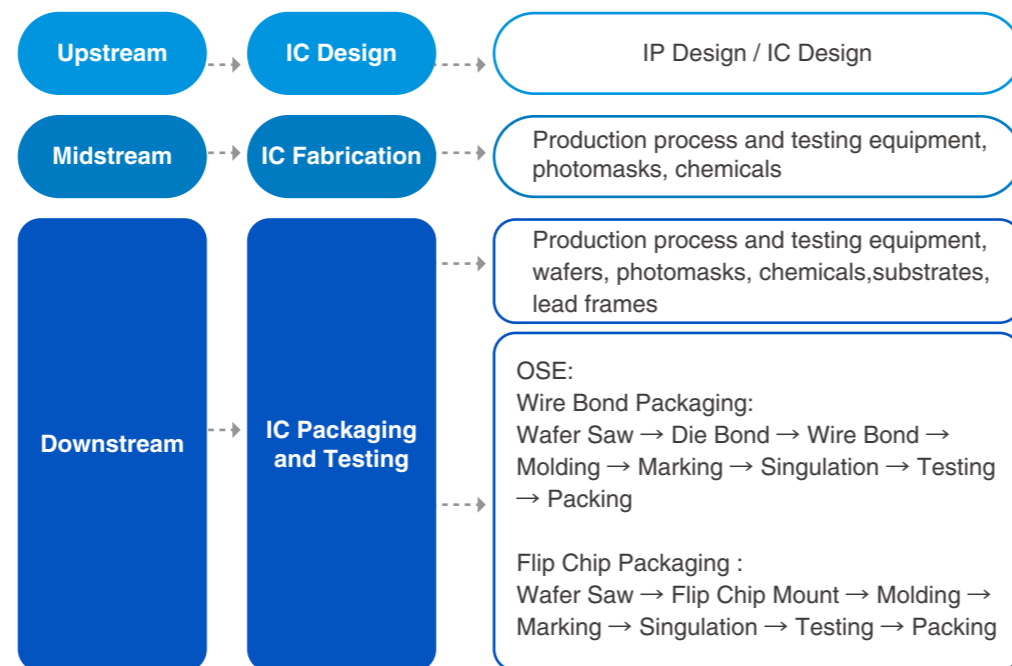
GRI 2-6

OSE are mainly consists of the IC Semiconductor Group and EMS Group. Our services include integrated circuits and various semiconductor components, electronics, printed , circuit boards, hardware, software, systems, and peripheral products for computers and communications products as well as research, development, design, manufacturing, assembly, processing, testing, and after-sales service of the products.

## IC Semiconductor Group

We offer the full turnkey solution in diverse IC packaging and testing with applications in consumer electronics, telecommunications networks, automotive electronics, computer, communications, networks, industrial controllers, digital cameras, commercial products,etc. Substrate based products, Lead frame products, CSP products and flash related packages also increase our competitiveness .

## Vertical Disintegration of Semiconductor Manufacturing



## Electronics Manufacturing Services Group

We provide professional services to our customers, including printed circuit board assembly (PCB assembly), box build assembly, and system integration. We also offer rapid prototyping and pilot run services to help customers bring their products to the market. Our current manufacturing projects are mainly focused on servers, System in Package (Sip) modules, instruments and large industrial equipment, storage systems, petroleum exploration, and satellite-related applications, etc. We also offer high quality products and services for special-purpose electronic products (used in medical, aerospace, etc.) which has more stringent requirements than IPC-A-610 Class 3.

Upstream	Part Suppliers	Central processing unit (CPU), display panel, solid-state / hard-disk drives (SSD/HDD), memory, chipset, battery, passive components, power supply, keyboard, casing, circuit boards
Midstream	Assembly Plant	Desktop computers, All-in-One computers, laptops, tablets, mobile smart devices, smart peripherals and optical components, servers, data centers, industrial computers  OSE: Parts Processing → SMT Assembly → Component Insertion → Automated Soldering → Automated Cleaning and Drying → Testing → Casing Assembly → Testing → Packing → Shipping
Downstream	Customers	Brand customers, retailers, consumer electronics retailers, end consumers

## Contents

### Foreword

### 1. Operations and Governance

#### 1.1 About OSE

#### 1.2 Implementing Sustainability

#### 1.3 Shareholder Engagement and Materiality Analysis

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

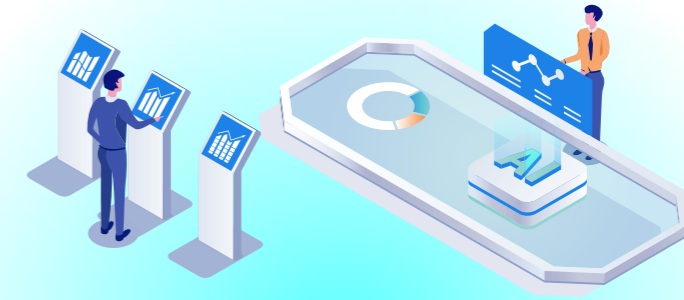
### Appendix

### Participation in External Associations

GRI 2-28

In addition to internal promotion, OSE participates in industry associations and organizations to advocate for sustainable practices. OSE aims to contribute industry-specific expertise and insights to facilitate the development of effective government policies and regulations. By engaging with industry associations and external organizations, OSE seeks to foster cooperation, sharing and progress of the overall industries' prosperity.

Organization	Event	Capacity
Association Of Industrial Relations EPZ's, ROC	Facilitate cooperation between labor and management.	supervisor, member
TSIA-Task Force for the Promotion of Sustainable Development Strategies for the Packaging and Testing Industry	A founding member ; Research and provide feedback on amendments to domestic and international environmental, safety, and health regulations; Dedicated to promoting source audits of waste in the semiconductor testing and packaging industry, conducting joint inspections of waste treatment facilities, and advocating for waste resource management systems; Address environmental concerns within the packaging industry.	member
Taiwan Alliance for Sustainable Supply (TASS)	A founding member; Primarily assists with promoting the collaboration platform for sustainable supply and circular economy	member
Taiwan Science and Technology Industrial Park Electrical and Electronics Industry Association	Joined and became a founding member.	member
Kaohsiung Industrial Development Association	Facilitate sharing of industry practices and experiences, enhance the skills and competencies of industry professionals, and ultimately elevate the level of industrial technology in the Kaohsiung region.	member
International Semiconductor Alliance	Recruit foreign and domestic talents, provide diverse talent training, meet with experts to determine scope of skills, build database of resumes, and conduct talent matchmaking, etc.	permanent member



Organization	Event	Capacity
Innovation and Value-added Industry-Academia Alliance	Connected partners in the industry and academia for cross-field digital and innovative collaborations; Provide diverse talents required for industry digitalization and upgrade; Assist domestic industries in establishing their footing in the wave of digitalization and fully realize industry digitalization.	permanent member
Taiwan CIO (Chief Information Officer) Association	Promoted the exchange of information application technology and experience among CIOs in various industries in Taiwan to assist in promoting the electrification of enterprises.	member
Taiwan Chief Information Security Officer Alliance	Promoted information security technology application and experience exchange among information security managers in various industries in Taiwan, cultivate information security professionals, and complied with laws and regulations, enhance the resilience of Taiwan's industrial information security, and promote sustainable development of enterprises.	member
Taiwan Space Industry Development Association	Joined in 2020 and is a founding member of the association	member
Association for the Promotion of Industrial Relations of the Processing and Export Industry of the Republic of China	Semiconductor packaging, testing, and manufacturing industry peers exchange experiences in human management, work experience, and share information on human resources issues.	member

Contents

Foreword

1. Operations and Governance

1.1 About OSE

1.2 Implementing Sustainability

1.3 Shareholder Engagement and Materiality Analysis

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix

Organization	Event	Capacity
Kaohsiung Enterprise Personnel Representatives Association (KPA)	Discussed human resources management practices, labor laws, company systems, regular meetings, and exchanges on human resources topics, etc.	member
Taiwan Semiconductor Industry Association (TSIA)	Participated in activities organized by the association for the development of the semiconductor industry.	member
Kaohsiung Science and Technology Association	Shared practical industry experience and information, and promote different thinking through inter-enterprise exchanges	member
Intelligent Terminal Storage Association (ITMA)	Assisted in formulating product testing specifications, testing laboratory requirements and evaluation management frameworks	vice chairman & member of testing standards working group
SD Association (SDA)	Obtained information of product international specifications	member
JEDEC Solid State Technology Association	Obtained information of product international specifications	member
IEK Industry Information Network	1.Participated in lectures & seminars 2.Obtained industry information	member
Kaohsiung Nanzi Science and Technology Industrial Park Occupational Safety and Health Promotion Association	1.Founding member of the association 2.Consulted and responded to the revision of domestic and foreign occupational safety and health-related laws and regulations. 3.Co-organized education and training for contractors 4.Served as a cadre of the association to promote relevant occupational safety and health in peer information sharing	member & vice president
Kaohsiung Nanzi Science and Technology Industrial Park Regional Joint Defense Organization	1.Founding member of the organization (established in 2023) 2.Assisted in promoting the regional joint defense organization charter and exercise planning	member & vice president

1.2 Sustainable Practice

ESG Committee GRI 2-13 、 2-14 、 2-16

To deepen sustainable management of OSE, we stick to our core values and implement our strategies. OSE set up the " ESG Committee" as our sustainability management organization in 2022. Chairman Tony Tung President CJ Tu serves as the chairman of the ESG Committee, President CJ Tu serves as the deputy chairman, and deputy general manager Crystal Lai of the management center serves as the representative. Together with the senior managers of each center, the ESG Committee reviews the company's sustainable development plan and blueprint. To ensure the company's sustainable strategies are fully implemented, the ESG Committee holds the regular meeting quarterly and report the goals and achievements to the board of directors yearly.

Sustainability Management

Our Strategies

The ESG Committee identifies sustainability issues related to the company's operations and the concerns of stakeholders, as well as important sustainability trends at home and abroad. Through the promotions from all the teams under the Committee, we set our annual goals, carry out our sustainability plans, and track the results. The ESG committee reports implementation status to the Board of Directors, letting directors to understand the progress of the sustainability plan and ensure that ESG strategies are fully implemented in the company's daily operations.

Core Values

- Integrity
- innovation
- Proactiveness
- Empathy



## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## 2023 OSE ESG Committee



In 2023, the ESG Committee has held regular meetings 4 times, and reported to the Board of Directors once. There's no difference between our plan and implementation status.



## 2023, the ESG Committee's Main Achievements

Subject Work projects	Content Execution content
Compliance and Development	<ul style="list-style-type: none"> <li>• Reviewed the plans, strategies, and goals.</li> <li>• Review the goal setting and implementation of each working group and provide suggestions.</li> <li>• Materiality principle, identify material sustainability issues Based on materiality principle, identify annual sustainability topic.</li> <li>• Reported to the Board of Directors and passed our "Sustainability Development Guideline" and "Preparing Sustainability Reports and Assurance Procedure."</li> <li>• According to the Procedure, the 2022 OSE sustainability report has been confirmed by the ESG Committee and received limited assurance report for the first time.</li> <li>• Uploaded our CDP Questionnaire</li> </ul>
Mind Building	<ul style="list-style-type: none"> <li>• Created Learning Map.</li> <li>• External course introduction</li> <li>• Forums, lectures, course participation</li> </ul>
Interaction	<ul style="list-style-type: none"> <li>• Renewed our official website and additionally established ESG website.</li> <li>• 924 effective stakeholder questionnaires were distributed.</li> <li>• Publicized our news on official website for 9 times.</li> <li>• Published our quarterly ESG Newsletter on ESG website for 3 times.</li> </ul>

## Our Vision

OSE formulates strategies for various aspects of ESG, set quantitative goals in the short, medium, and long term, pragmatically carries out actions and reviews the results, so that stakeholders inside and outside of the company can understand OSE determination to implement sustainability, and what we are committed to do in the future.

## Contents

### Foreword

### 1. Operations and Governance

#### 1.1 About OSE

#### 1.2 Implementing Sustainability

#### 1.3 Shareholder Engagement and Materiality Analysis

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

## Our Sustainability Goals

The OSE ESG Committee continues to manage the company's short-, medium-, and long-term sustainability goals. The implementation status of each team in 2023 was reported at regular meetings of the ESG Committee and department meetings; if goals could not be achieved, explanations and follow-up reinforcing measures were required to be provided and included follow-up actions in the work after reporting.

After operation in 2023, to comply with changes in domestic and international sustainable development trends and requirements, the ESG Committee has adjusted, deleted, and added some of the sustainability goals to ensure that the company's sustainability strategy was in line with standards of our industry and the direction of improvement to effectively implement in daily operations.

Theme	Key items	Strategy	Measures	2023 Target	2023 Implement	2024 Target	2030 Target
Green operation	Low Carbon Energy	Improve Energy Efficiency	Energy saving rate that more than the annual power demand	2.1%	-5.1%	3.1%	9.1%
			Increase in energy savings compared to the baseline year	2.1%	-2.9%	This indicator overlapped with the other one, so it was deleted.	-
			Number of plants upgraded to BERS Level 1	-	-	Plan for medium to long term	3 factories advanced 1 level
		Use Renewable Energy	% of self-generated solar energy compared to total energy consumption	0.16%	0.1%	0.31%	0.33%
			% of procured renewable energy compared to total energy consumption	0%	0%	0.88%	2.0%
	Greenhouse Gas Management	Greenhouse Gas Reduction	Coverage rate of plant GHG emission verification	100%	100%	100%	100%
			Decrease in GHG emissions intensity compared to the baseline year	0.12%	2.5%	0.2%	6.4%
			Absolute reduction in scope 1 and 2 GHG emissions	0.80%	0%	1.8%	23%
	Water Management	Water Resources Management	Decrease in water intake compared to the baseline year (amount of water/revenue in millions of NTD)	5.5%	12.2%	11.1%	32.1%
			Decrease in wastewater compared to the baseline year	25%	15.7%	27%	39%
			Wastewater recycling rate (water recycled from production / water consumption + water recycled from production)	30%	28.7%	32%	44%
			Decrease in water intake compared to the baseline year	-	-	Recycled water plan of Nanzi Park has not yet been clarified, so it has been deleted.	-
		Develop Prevention and Control Technologies	Primary indicators of water pollution exceed regulatory standards	46%	82.5%	60%	70%
	Waste and Recycling	Resource Circulation	Recycling of general waste	> 36.4%	39.2%	>36.7%	>38.5%
		Source Reduction	Intensity of waste generation (volume of waste generation/revenue in millions of NTD)	≤0.185	0.152	≤0.182	≤0.180

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Our Sustainability Goals

Theme	Key items	Strategy	Measures	2023 Target	2023 Implement	2024 Target	2030 Target
Talent sustainability	Recruitment and Retention	Improve Employee Retention	Retention of key high-performing talents	≥98%	99.4%	≥98%	≥98%
			Indirect - Employee Attrition Rate	<1.16%	1.12%	≤1.16%	≤1.16%
			Direct - Local Employee Attrition Rate	< 3%	2.96%	≤3%	≤3%
			Direct - Foreign Employee Attrition Rate	<1.5%	1.00%	≤1.2%	≤1.2%
			Goal implementation of working hour management at RBA-certified factory reaches	100%	100%	100%	100%
		Employee Compensation and Benefits	Rate of Salary Growth	≥3%	3.15%	≥ 2.5%	≥ 2.7%
	Human Capital Development	Employee Learning Momentum	Average learning hours per year (employees)	>9 hours	18.45	>24 hours	>48 hours
			Average learning hours per year (management)	>17 hours	33.53	>35 hours	>56 hours
			Percentage of employees with internal lecturer certifications	>7%	7.14%	>10%	>15%
		Reserve Future Talents	Percentage of job openings filled by internal employees or managers	>30%	30.4%	≥30%	≥35%
	Diversity And Inclusion	Diversity and Inclusion	Percentage of new female recruits from engineering majors	24.5%	23.48%	24.5%	25%
			Percentage of promotions for underprivileged employees	2.2%	2.38%	10%	10%
			Percentage of non-migrant-worker foreign employees	4.5%	5.92%	5%	9%
		Implement Human Rights Management	Major incidents of labor violations (fines over NTD\$ 500,000 per violation)	0	0	0	0
			Completion rate of human rights training	100%	100%	100%	100%
	Employee Health and Safety	Promote Safety Culture	Disabling frequency rate (FR)	< 0.55	0.86%	< 0.55	<0.37
			Disabling injury severity rate (SR)	< 35.12	27.6	< 27	<23.1
			Major occupational accidents (with losses exceeding NT\$ 1 million)	0 items	0 items	0 items	0 items
			Minor occupational accidents (losses do not exceed NT\$ 1 million)	2 items	0 items	0 items	0 items
			Frequency-Severity Indicator (FSI) compared to the industry average	< 10%	<25%	<22%	<30%
			Major occupational disasters	2 items	1 items	1 items	0 items
	Employee Health and Safety	Health Management	Completion of abnormality grading management for health checks	100%	100%	100%	100%
			Health promotion events	10	14	15	20
			Participation in health promotion events	20%	31.3%	30%	40%
			Incidents of occupational illnesses	0 items	0 items	0 items	0 items

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Our Sustainability Goals

Theme	Key items	Strategy	Measures	2023 Target	2023 Implement	2024 Target	2030 Target
Excellent governance	Business Ethics	Implementation Of Risk Management and Control Strategies	Incidents of corruption or legal violations of social or economic regulations	0 items	0 items	0 items	0 items
			Employee training coverage rate (new recruits and retraining)	Signature rate 100%	Signature rate 100%	Signature rate 100%	Signature rate 100%
			Percentage of Employees Who have Signed and Comply with the Employee Code of Ethics	100% for new employees	100% for new employees	100% for all staff	100% for all staff
			Confirmed incidents of violation of business ethics	0 items	0 items	0 items	0 items
			Number of Sustainability-related Training Hours Completed by the Board	3 hours	3 hours	3 hours	3 hours
	Risk Management	Implementation Of Risk Management and Control Strategies	(Indicator deleted) Completed revision of "Risk Management Policies and Procedures"	Submitted to the board of directors for approval in April	Submitted to the board of directors for approval in July	Closed	-
			Percentage of completion in developing management procedures for each risk as defined in the Risk Management Policy and Procedures	50%	55%	7 risks	
			(Indicator deleted) Implementation rate of company risk management protocols	-	-	The content of the indicators was included in our internal procedures, so it was deleted.	-
			(Indicator deleted) Regularly compile risk management reports for the Board	-	-		-
			Risk management training completion rate for employees at each level	The training completion rate for vice presidents and above 100%	100%	The training completion rate for managers 100%	
		Information Security Risk Management	Major economic, environmental, and social incidents	0 items	0 items	0 items	0 items
			(new indicator) Understand the carbon rights trading regulations and mechanisms and complete research reports			1 report	
			Major information security incidents	0 items	0 items	0 items	0 items
			ISO 27001 Certification	100%	100%	Pass audit	Pass audit
			Employee information security education and awareness training coverage rate	100%	100%	100%	100%
			Downtime caused by major information security incidents	<8.76 hours	<8.76 hours	< 8.76 hours	<8.76 hours
			Conduct 4 times of social engineering drills each year	4 times	4 times	4 times	4 times

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Our Sustainability Goals

Theme	Key items	Strategy	Measures	2023 Target	2023 Implement	2024 Target	2030 Target
Excellent governance	Sustainable Supply Chain	Supplier Management	Percentage of suppliers signing Declaration of Integrity	100%	100%	100% for new suppliers	100% for new suppliers
			(Indicator deleted) Percentage of strategic suppliers that completed assessment questionnaire for sustainability risks	100%	100%	Closed	-
			Percentage of strategic suppliers submitting to RBA audits <sup>Note 3</sup>	50%	50%	30 companies which were not yet audited in 2023	Complete audit of all newly added strategic suppliers
			Percentage of strategic suppliers that made improvements post-RBA audit	75%	100%	Improvement rate after audit 100%	Improvement rate after audit 100%
			Hold regular meetings with major suppliers to promote ESG policy	100%	100%	100%	100%
			(new indicator) ESG-related certifications obtained by key suppliers			27	60% of key suppliers have obtained ESG-related certifications
		(New Item) Recycling	Suppliers whose shipments using recirculating outer boxes			5	10
			Suppliers converting wooden pallets to plastic			11	21
			Suppliers using recycling Tray P/N			7 P/N	10%
Sustainable innovation	Green Product	Green Product	Revenue share from sustainable products	≥ 20%	22%	≥ 40%	≥50 %
	Innovation Management	(Indicator Deleted) Technology Leadership	Number of new patent applications filed each year	5	4	In response to changes in market demand, the indicators have been deleted and adjusted:	-
			Number of patents phased out each year	0	0		-
			Number of global patent applications filed each year	5	4		-
			Cumulative number of patent approvals	3	2		-
			Percentage of invention patents	> 70%	100%		-
		(New Item) Utilization Of Carbon Reduction Materials	Complete SMT low temperature solder pastes research and use in microSD			100%	Completed the verification of SMT low-temperature solder paste for all commercial products
			Evaluate and verify the IC packaging process of using recycled gold in wire rods and applying it to all products			100%	Recycled gold materials gradually apply to all products

Note 1: The indicator information in this table was reported at the OSE ESG Committee quarterly meeting in the first quarter of 2024 on February 29, 2024.

Note 2: New targets were marked in figured for better understanding.

Note 3: OSE has identified 60 strategic suppliers in 2023

Contents

Foreword

1. Operations and Governance

1.1 About OSE

1.2 Implementing Sustainability

1.3 Shareholder Engagement and Materiality Analysis

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix

# 1.3 Stakeholder Engagement and Materiality Analysis

## Identifying Stakeholders

OSE identifies stakeholders in accordance with the AA 1000 SES (Stakeholder Engagement Standards). Based on the five assessment dimensions - dependency, responsibility, influence, diverse perspectives, and tension, OSE has identified seven groups of stakeholders: employees, customers, suppliers/contractors, investors, government authorities, communities/non-profit organizations, and media. OSE also responds to stakeholders based on the level of concern regarding material topics. We aim to maintain good communication and interaction with various stakeholders, continuously gathering feedback and making necessary adjustments to business decisions and operations. This helps OSE progress steadily towards sustainability.

## Stakeholder Engagement GRI 2-29

### Employees

Significance to OSE	Talents are the foundation of our business. Only by maintaining and outstanding management team and talents can we ensure sustainable development and growth for our company. We value employees as important assets and hope to provide them with a safe, healthy, equal, and inclusive workplace.	
Topics of Concern	<ul style="list-style-type: none"> <li>• Labor Rights</li> <li>• Occupational Health and Safety</li> <li>• Diversity and Inclusion</li> <li>• Talent Recruitment and Retention</li> <li>• Ethical operations</li> </ul>	
Responding Department	Human Resource Division and all relevant departments	
Method / Frequency of Engagement	<ul style="list-style-type: none"> <li>• Labor Meetings/Quarterly</li> <li>• Internal and External Company Website/Periodically</li> <li>• Communication and work meetings/activities within each department: Coffee Sessions/Periodically</li> <li>• Employee communication and complaint channels: Dedicated section on our official website</li> <li>• Company Social Media: OSE Rookie Newsletter Line@, FB, IG</li> </ul>	<ul style="list-style-type: none"> <li>• Employee communication channels: Employee Suggestion Box at each plan/Weekly checks</li> <li>• Employee hotline</li> <li>• Employee Email/Daily</li> <li>• Foreign migrant workers monthly meeting / Monthly</li> </ul>
Major Engagements in 2023	<ul style="list-style-type: none"> <li>• Quarterly labor-management meetings with union: 4 times</li> <li>• Model Employee Awards events: 141 people</li> <li>• Talent Show events: 118 people; awarded OSE Star: 20 people</li> </ul>	<ul style="list-style-type: none"> <li>• Participated in Coffee Session: Online 166 people, On-site 62 people</li> <li>• Social media interactions: 78 Facebook posts, 53 LinkedIn posts, 53 Instagram posts, 3 Line posts, and 460 Instagram stories updates</li> </ul>

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix



### Customer

<b>Significance to OSE</b>	Customers are our main source of revenue; therefore, we hope to provide our clients with service that exceeds their expectations to create value together.
<b>Topics of Concern</b>	<ul style="list-style-type: none"> <li>• Occupational Health and Safety</li> <li>• Labor Rights</li> <li>• Customer Relations</li> <li>• Environmental Policy and Management</li> <li>• Risk Management</li> <li>• Ethical operations</li> <li>• Green Products</li> </ul>
<b>Responding Department</b>	Business Center, Quality Assurance Division
<b>Method / Frequency of Engagement</b>	<ul style="list-style-type: none"> <li>• Regular/Periodic Meetings</li> <li>• Raising client awareness, client audits / Periodically</li> <li>• Expos/Periodically</li> <li>• Customer Satisfaction Survey/Regularly</li> </ul>
<b>Major Engagements in 2023</b>	<ul style="list-style-type: none"> <li>• Completed 32 customer satisfaction surveys.</li> </ul>



### Supplier/Contractor

<b>Significance to OSE</b>	We rely on the support from our suppliers to provide quality products and services. We provide products and services of quality and in compliance with regulations. As such, we work with suppliers to build a partnership based on mutual trust.
<b>Topics of Concern</b>	<ul style="list-style-type: none"> <li>• Ethical operations</li> <li>• Talent Development and Training</li> <li>• Legal Compliance</li> <li>• Energy Management</li> <li>• Talent Recruitment and Retention</li> </ul>
<b>Responding Department</b>	Procurement Division, Quality Assurance Division
<b>Method / Frequency of Engagement</b>	<ul style="list-style-type: none"> <li>• External communication Email/Periodically</li> <li>• Continued sales communication / Periodically</li> <li>• Supplier evaluation and audit/Regularly</li> <li>• Supplier conference/Periodically</li> </ul>
<b>Major Engagements in 2023</b>	<ul style="list-style-type: none"> <li>• 60 new suppliers signed OSE declarations of integrity.</li> <li>• Completed annual supplier assessment for 20 companies.</li> <li>• An annual supplier conference was held, inviting 61 outstanding suppliers selected by OSE in 2023 in attendance.</li> </ul>

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix



## Shareholders / Investors

<b>Significance to OSE</b>	We value shareholder and investor interests and hope to continue improving our business performance, corporate governance, and sustainable development.
<b>Topics of Concern</b>	<ul style="list-style-type: none"> <li>• Economic Performance</li> <li>• Ethical operations</li> <li>• Corporate Governance</li> <li>• Risk Management</li> <li>• Legal Compliance</li> </ul>
<b>Responding Department</b>	Accounting Division, Auditorial Office
<b>Method / Frequency of Engagement</b>	<ul style="list-style-type: none"> <li>• Shareholder's Meeting/Regularly</li> <li>• Annual report/Regularly</li> <li>• Corporate briefing/Regularly</li> <li>• Information updates on company website/Regularly</li> <li>• Comments section on company website/Periodically</li> </ul>
<b>Major Engagements in 2023</b>	<ul style="list-style-type: none"> <li>• Held shareholders' meeting: 1</li> <li>• Conducted corporate briefing with invitation: 2</li> <li>• Updated material information: 30</li> </ul>



## Government / Authorities

<b>Significance to OSE</b>	We actively comply with the regulations and policies of the competent authority in hopes of implementing ethical operations.
<b>Topics of Concern</b>	<ul style="list-style-type: none"> <li>• Energy Management</li> <li>• Water resource management</li> <li>• Waste Management</li> <li>• Occupational Health and Safety</li> <li>• Legal Compliance</li> </ul>
<b>Responding Department</b>	Human Resource Division, ESG Committee and relevant departments
<b>Method / Frequency of Engagement</b>	<ul style="list-style-type: none"> <li>• Official government circulars/Regularly/Periodically</li> <li>• Phone calls/Periodically.</li> <li>• Emails/Periodically</li> <li>• Meetings and seminars/Periodically</li> </ul>
<b>Major Engagements in 2023</b>	<ul style="list-style-type: none"> <li>• Actively participate in exchanges and meetings organized by government authorities.</li> <li>• Provide regular reports and respond to questions in accordance with government regulations</li> </ul>

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix



## Community/NGO

<b>Significance to OSE</b>	We value the impact of our business activities on local development.
<b>Topics of Concern</b>	<ul style="list-style-type: none"> <li>• Water resource management</li> <li>• Waste Management</li> <li>• Economic Performance</li> </ul>
<b>Responding Department</b>	Human Resource Division, ESG Committee and relevant departments
<b>Method / Frequency of Engagement</b>	<ul style="list-style-type: none"> <li>• External communication mailbox/irregular</li> <li>• Event management/regular</li> </ul>
<b>Major Engagements in 2023</b>	<ul style="list-style-type: none"> <li>• Participating public associations: 20</li> <li>• Sponsorship of art project and donation of electronic waste: 1 Green Arts Silver Award artwork and 1 Collection Award artwork</li> <li>• Cinema Courses of non-City elementary school in Kaohsiung: 29 students</li> <li>• Hosted campus lectures: 23</li> <li>• Sponsored color papers for soil and water conservation programs with the Business weekly : 1,000 sheets</li> <li>• Environmental and social act:               <ol style="list-style-type: none"> <li>1.Participated in beach cleanup activities: 2 events, 75 people in total</li> <li>2.Greening activities: 350 Taiwan indigenous tree seeds, one lecture with local community</li> <li>3.Held charity booth for collecting goods: 1 time</li> </ol> </li> </ul>



## Media

<b>Significance to OSE</b>	Important medium of communication with the public.
<b>Topics of Concern</b>	<ul style="list-style-type: none"> <li>• Waste Management</li> <li>• Customer Relations</li> <li>• Legal Compliance</li> <li>• Economic Performance</li> </ul>
<b>Responding Department</b>	Company spokesperson and all relevant departments
<b>Method / Frequency of Engagement</b>	<ul style="list-style-type: none"> <li>• Information updates on company website/Periodically</li> <li>• Major updates/Periodically</li> </ul>
<b>Major Engagements in 2023</b>	<ul style="list-style-type: none"> <li>• The number of visits to OSE official website reached 81.6 thousand, and the total number of exposures reached 1.83 million, which was a significant increase compared with 2022.</li> <li>• Released 9 latest news on OSE website.</li> <li>• Published 2 ESG quarterly e-newsletters on OSE website</li> </ul>

## Contents

## Foreword

### 1. Operations and Governance

#### 1.1 About OSE

#### 1.2 Implementing Sustainability

#### 1.3 Shareholder Engagement and Materiality Analysis

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

## Appendix

## Identification of major themes

GRI 3-1 、 3-2

OSE values the rights and opinions of stakeholders. To understand the level of stakeholder concern regarding sustainability issues, we follow the internationally recognized reporting standards set by the Global Reporting Initiative (GRI) in GRI Standards 2021. We identified material topics using the following steps:

### A. Investigate Sustainability Issues

In accordance with the GRI Standards, we collected and screened relevant sustainability topics based on international standards and industry concerns both domestically and internationally in 2023. We focused on sustainability issues that are directly related to our operations.

### B. Assessment of Stakeholder Concern

Questionnaires were distributed to all seven categories of external stakeholders to understand their concerns and level of interest in various material topics and OSE operations. A total of 924 valid questionnaires were collected, analyzed, and ranked based on stakeholder level of interest.

### C. Assessing Level of Impact

An internal impact questionnaire was created based on the results of the external stakeholder survey. The questionnaire consisted of 19 sustainability topics. The OSE management team, comprising 10 senior executives, filled out the questionnaire to assess the positive and negative impacts as well as the scale of influence each topic has on our operations.

### D. Finalize List of Material Topics

Based on the internal impact assessment, a total of 9 material topics identified in 2022 for reporting also were applicable in the 2023, which included 3 environmental topics, 3 social topics, 2 governance topics, and 1 product and service topics. In addition, in response to important domestic and foreign trends, we have selected " sustainable supply chain " and " labor human rights " as OSE's voluntary disclosure topics.

## 1. Positive impact assessment

		Scope and scale of influence		
		Low	Middle	High
Frequency of Possibility	High		<ul style="list-style-type: none"> <li>talent attraction and retention</li> <li>environmental policy and management</li> </ul>	<ul style="list-style-type: none"> <li>customer relations</li> <li>greenhouse gas management</li> <li>risk management</li> </ul>
	Middle	<ul style="list-style-type: none"> <li>Corporate governance</li> <li>innovative research and development</li> <li>waste management</li> </ul>	<ul style="list-style-type: none"> <li>talent development and training</li> <li>water resources management</li> <li>energy management</li> <li>economic performance</li> </ul>	<ul style="list-style-type: none"> <li>occupational safety and health</li> </ul>
	Low	<ul style="list-style-type: none"> <li>Green product</li> <li>labor human rights</li> <li>diversity and inclusion</li> <li>climate change</li> </ul>	<ul style="list-style-type: none"> <li>compliance</li> <li>integrity management</li> </ul>	

## 2. Negative impact assessment

		Scope and scale of influence		
		Low	Middle	High
Frequency of Possibility	High		<ul style="list-style-type: none"> <li>compliance</li> </ul>	<ul style="list-style-type: none"> <li>customer relations</li> <li>talent attraction and retention</li> </ul>
	Middle	<ul style="list-style-type: none"> <li>Environmental policy and management</li> </ul>	<ul style="list-style-type: none"> <li>integrity management</li> <li>talent development and training</li> <li>greenhouse gas management</li> <li>water resources management</li> <li>green product</li> <li>innovative research and development</li> <li>corporate governance</li> </ul>	<ul style="list-style-type: none"> <li>risk management</li> <li>occupational safety and health</li> </ul>
	Low	<ul style="list-style-type: none"> <li>Waste management</li> <li>diversity and inclusion</li> <li>energy management</li> <li>climate change</li> </ul>	<ul style="list-style-type: none"> <li>economic performance</li> <li>labor human rights</li> </ul>	

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

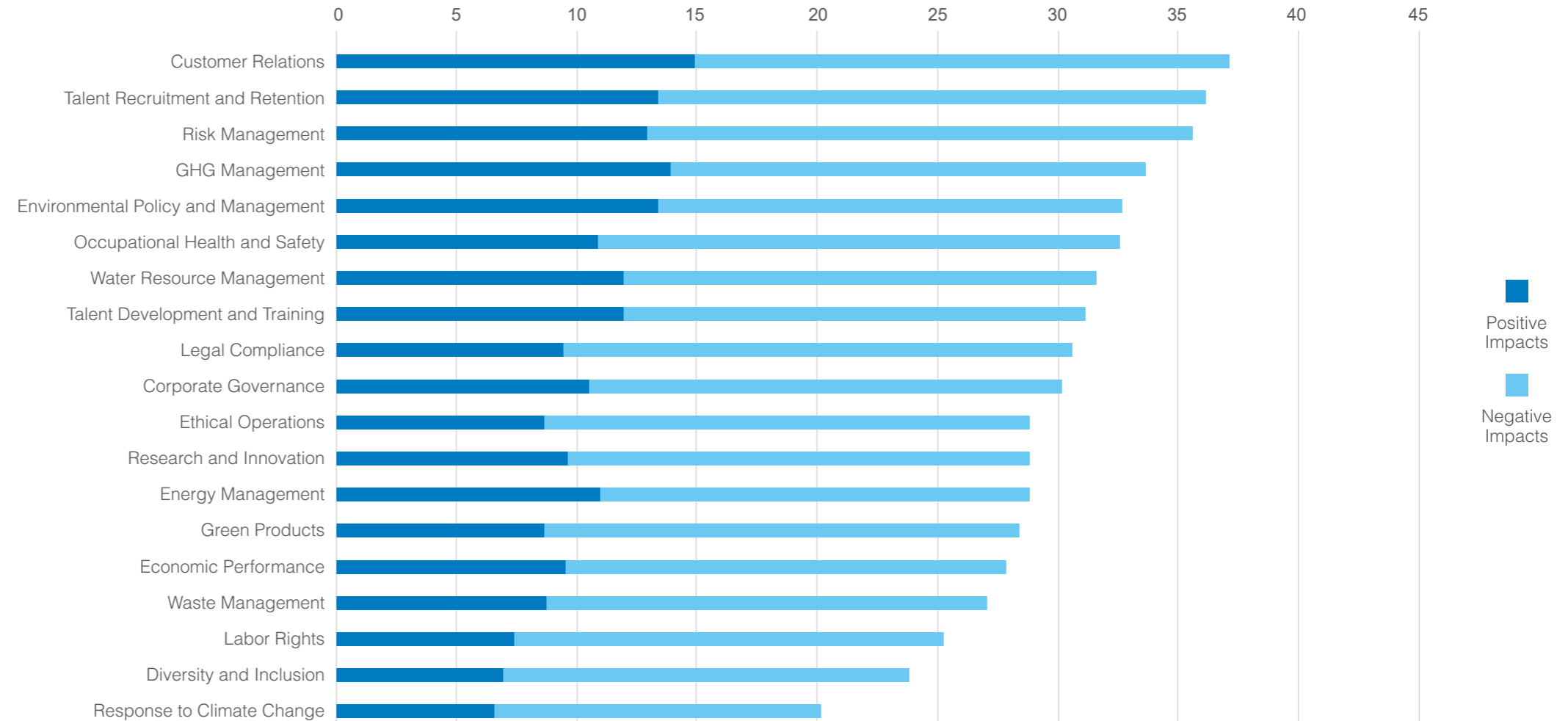
## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### 3. Major impact assessment results



## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### a. OSE's Material Topics of 2023

environment	Society / Human Rights	Governance / Economy	product
Climate change and greenhouse gas management	customer relations	Risk Management and Compliance	Innovative research and development
Environmental Policy and Management	Talent sustainability	Corporate Governance	
water resources management	Occupational Safety and Health		

### b. Differences with Last Year's Material Topics

2022	2023	Difference description
Corporate Governance	Corporate Governance	none
Risk Management and Compliance	Risk Management and Compliance	none
Customer relations	Customer relations	none
Talent sustainability	Talent sustainability	none
Labor safety and health	Labor safety and health	none
Climate change and greenhouse gas management	Climate change and greenhouse gas management	none
Environmental Policy and Management	Environmental Policy and Management	none
Water resources management	Water resources management	none
Innovative research and development	Innovative research and development	none

## Contents

## Foreword

## 1. Operations and Governance

### 1.1 About OSE

### 1.2 Implementing Sustainability

### 1.3 Shareholder Engagement and Materiality Analysis

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### c. Value Chain Boundary of Material Topics, Corresponding GRI Topics, and Responding Sections

◎ Direct relationship ○ Indirect relationship ※ Business partner

Dimension	Sustainability Topic	Value Chain Boundaries				Corresponding GRI Material Topic	Responding Chapter
		Organization Itself		Upstream	Downstream		
		IC (Packaging Test)	EMS (Electronics Manufacturing)	Supplier	Client		
Governance	Corporate Governance					2 General Disclosure 201 Economic Performance 205 Anti-Corruptions 206 Anti-Competitive Conduct	2.1 Corporate Governance 2.2 Integrity Management 2.3 Economic Performance
	Risk Management and Compliance					2-27 Compliance with Regulations	2.4 Risk Management and Regulatory Compliance
Environmental	Climate Change and Greenhouse Gas Management	◎	◎	○	※	201 Economic Performance 305 Energy	3.2 Climate Change and Ghgs Management
	Environmental Policy and Management	◎	◎	○	※	-	3.1 Environmental Policy and Management 3.3 Waste Management
	Water Resources Management	◎	◎			303 Water and Flowing Water	3.4 Water Resources Management
Product	Innovative Research and Development	◎	◎	○	※	-	4.4 Innovation R&D
Social	Customer Relations	◎	◎		※	201 Economic Performance 418 Customer Privacy	4.2 Customer Relationship Management 4.3 Product Quality and Safety
	Talent Sustainability	◎	◎			401 Labor-Employer Relations 405 Employee Diversity and Equal Opportunities	5.1 Talent Sustainability 5.2 Talent Development and Education 5.3 Friendly Workplace
	Occupational Safety and Health	◎	◎	○		403 Occupational Safety and Health	5.4 Occupational Health and Safety

## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

# Honesty and Integrity

## 2.1 Corporate Governance

## 2.2 Ethical Operations

## 2.3 Economic Performance and Tax Governance

## 2.4 Risk Management and Legal Compliance



Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

2.1 Corporate Governance

2.2 Ethical Operations

2.3 Economic Performance and Tax Governance

2.4 Risk Management and Legal Compliance

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix

2.1 Corporate Governance GRI 2-23 、 2-24 、 2-25

Major Theme Management Policy

Impact	Positive: Through effective governance structure and the board of directors' functions, we ensure good corporate governance, build, and enhance shareholders' positive relationship, as well as continuously add value to our business. Negative: The information on corporate governance is not transparently disclosed or involves in frauds, damaging to the investors' rights, the company's reputation, or disrupting market orders.				
Management Mechanism	Policy	Through effective governance structure and the board of directors' functions, we ensure good corporate governance, build, and add value to our business. To improve our corporate governance, the Audit Committee has been established, consisting of three independent directors. To protect employee welfare and maintain the company's competitiveness, the Remuneration Committee has been established. Also, we implement effective internal control in operation to ensure the procedures' correctness.			
	Commitment	To establish a good corporate governance mechanism, OSE complies with the Securities and Exchange Law and other relevant laws and regulations, strengthens the board of directors, and improves information transparency, protects the rights of shareholders, and implement corporate social responsibilities.			
	Responsibility	Accounting Division, Financial Support Division			
	Resource	In addition to regular performance evaluations every year, an external professional independent agency or a group of experts and scholars will be appointed to conduct an external performance evaluation every three years.			
	Compliant Mechanism	The company has established reporting and reward procedures. The response methods of the procedures include verbal notification, suggestion box, complaint hotline and email communication, and are handled by professional personnel in an unbiased and confidential manner.			
			2023 Goals	2023 Peformances	2024 Goals
Implement	Goals and Targets	Incidents of corruption or legal violations of social or economic regulations	0	0	0
		Employee ethics training coverage rate of new recruits and annual training of all employees	100% for new employees	100% for new employees	100% for all employees
		Percentage of employees who have signed and comply with the employee code of ethics	100% for new employees	100% for new employees	100% for all employees
		Confirmed incidents of violation of business ethics	0	0	0
		Sustainability-related training hours completed by the Board	3hr per person	3hr per person	3hr per person

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

Implement	Specific Measure	Positive Impact Management	To implement good corporate governance and improve the Board of Directors and functional committees, performance is evaluated every year in accordance with the "Board of Directors Performance Evaluation Methods" and the results are reported to the Board of Directors.
		Negative Impact Management	Established the "SOP for Handling Board Requests" and the "Code of Business Ethics" to serve as guidelines for implementing corporate governance and ethical operations.
	Effectiveness Evaluation	<ul style="list-style-type: none"> <li>The results of the board performance evaluation indicate a positive assessment of the efficiency and effectiveness of the directors and functional committees in their operation of various indicators.</li> <li>100% of newly hired employees signed the Declaration of Integrity in 2023.</li> <li>No incidents of corruption or violations of laws in the social and economic sectors occurred in 2023.</li> <li>No incidents of violating business integrity or ethics occurred in 2023.</li> </ul>	

OSE has set up a spokesperson in accordance with the provisions of the "Corporate Governance Best Practice Principles for TWSE/TPEx Listed Companies" to provide transparent information to all stakeholders in a timely manner and improve the effectiveness of corporate governance. In addition, to implement good corporate governance, a Corporate Governance Officer was appointed in May 2021, headed by the manager of the Accounting Department. Corporate Governance Officer's main responsibilities include handling the board of directors and shareholders' meetings in accordance with the law, preparing minutes of the board of directors and shareholders' meetings, providing directors with the information to perform business, assisting directors in assuming their duties, complying with laws and regulations, and keeping on learning.

To practice corporate social responsibility and promote the progress of economics, environment and society, OSE not only creates profits and is responsible for the interests of shareholders, but also assumes responsibility for all stakeholders to achieve the goals of prosperity, social welfare, and environmental sustainability. To facilitate investors to obtain the information of OSE, in addition to disclosing corporate governance operations in our annual report, we have set a corporate governance area on our official website, where investors can inquire our policies and implementation status.

<https://www.ose.com.tw/about/csr/company-management/>

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

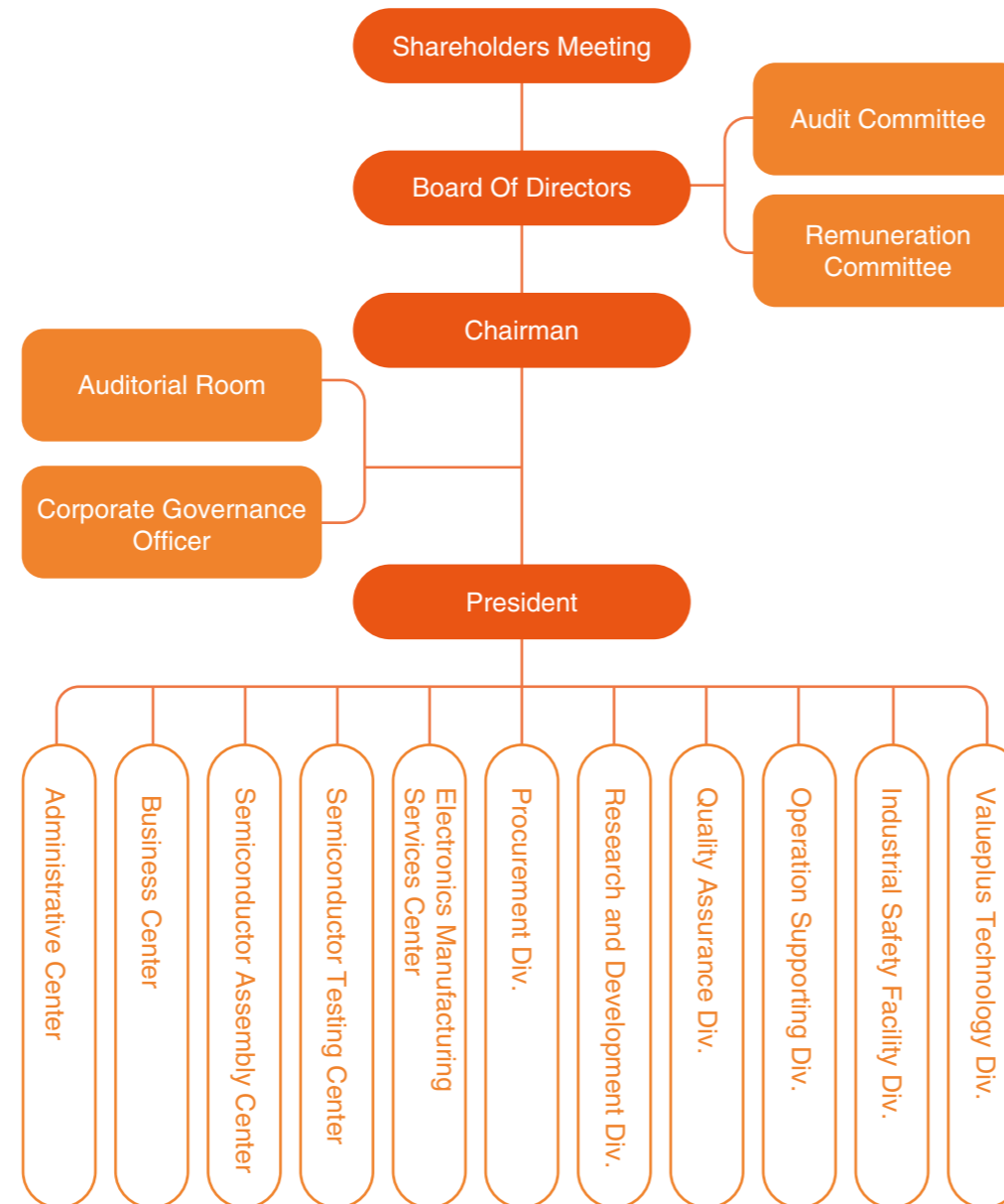
## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### 2.1.1 Company Structure GRI 2-9



### 2.1.2 The Board of Directors GRI 2-12

OSE's business philosophy is "Integrity & Sustainability". To implement our business philosophy, ensure the rights of shareholders, increase the company's transparency, and abide by the laws and regulations of corporate governance, we execute business faithfully, fulfill the roles and responsibilities of a manager, and establish effective governance structure and ethical standards to improve corporate governance.

The Board of Directors is the highest governance unit for establishing strategies and policies, and the board meeting held at least once a quarter in accordance with laws. If encountering emergency affairs or received the request from more than half of the directors, the board of directors may be convened by the Chairman at any time. OSE holds regular management meetings to discuss and review the current operating status and reports the operating performances to the board of directors for follow-up, and the board of directors decides the future operations and major policies. 2023, a total of 4 board meetings were held, and the attendance rate of directors reached 100%.

There are two functional committees under the board of directors, namely the Remuneration Committee and the Audit Committee. The functional committees submit the resolutions to the board of directors for further discussion, helping the board of directors perform its duties and enhance the interests of shareholders.

### The Nomination and Election of the Directors GRI 2-10

OSE's board of directors consists of 6 directors, including 3 independent directors. The independent directors accounts for 50% of all OSE directors and their independence is ensured in accordance with the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies". The candidate nomination of the directors and independent directors follows Article 192-1 of the "Company Act", elected by the shareholders' meeting from the list of candidates and may be re-elected.



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## The Member of the Board of Directors GRI 2-9

Title	Name	Gender	Age	Education
Chairman	Yueh-Ming Tung	Male	51-60	Education: National Sun Yat-sen University Master's Degree of EMBA Experience: President, Orient Semiconductor Electronics, Ltd.
Director	Chipbond Technology Corporation Representative: Huo-wen Gao	Male	61-70	Education: Master of Applied Chemistry, National Tsing Hua University Experience: President of Chipbond Technology Corporation
Director	Chipbond Technology Corporation Representative: Shi-wei Luo	Male	51-60	Education: EMBA of National Chiao Tung University/ Accounting, Chung Yuan Christian University Experience: Vice General Manager of Audit Department of the PricewaterhouseCoopers
Independent Director	Ching-Tien Tsai	Male	71-80	Education: Bachelor of Accounting, National Cheng Kung University Experience: Certified Public Accountant of Ernst & Young
Independent Director	Jeng-Ren Chiou	Male	61-70	Education: Ph. D., Finance, The City University of New York Experience: Professor, Department of Accounting, NCKU
Independent Director	Chia-Hua Hsu	Male	61-70	Education: Bachelor of Business Management, Tunghai University Experience: Chairman, Chilin Optoelectronics Co., LTD.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## The Diversity of the Board of Directors

GRI 2-10

In 2023, OSE board of directors was composed of 6 directors with different project backgrounds and skills, and the independence of 3 independent directors has evaluated in compliance with laws and regulations. Board members represents all shareholders and is responsible for company operations and supervision. Their diverse backgrounds and work experiences include industrial knowledge, financial accounting, crisis management and operations management, etc. and have met the requirements for functional diversification. We continue to understand the standard of being diverse and inclusive based on our future development. To strengthen supervision and guidance of the company and respond to sustainable development needs, we will strengthen environmental sustainability, occupational safety and health, labor human rights or other major issues, and pragmatically plan to enhance the diversity of board members.

The list of the Board and diversification policy



## Implementation of Diversity Policy for Individual Board Directors

Diversification	Professional Background and Competencies						
Director	Decusion Making Industry Knowledge	Accounting and Financial Analysis	Operational Management	Crisis Management	Industry Knowledge	Global Market Perspective	Leadership
Yueh-Ming Tung	V		V	V	V	V	V
Huo-wen Gao	V		V	V	V	V	V
Shi-wei, Luo	V	V	V	V	V	V	V
Ching-Tien Tsai	V	V	V	V	V	V	V
Jeng-Ren Chiou	V	V	V	V	V	V	V
Chia-Hua Hsu	V	V	V	V	V	V	V

## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

#### 2.1 Corporate Governance

#### 2.2 Ethical Operations

#### 2.3 Economic Performance and Tax Governance

#### 2.4 Risk Management and Legal Compliance

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

## Avoidance and Management of Conflicts of Interest

GRI 2-11 、 2-15

OSE's chairman and president are served by different natural persons to reduce the possibility of conflicts of interest. In addition, we have provisions on avoidance of interests in the governing procedure of the board of directors and the audit committee. In accordance with OSE's governing procedure for board of directors' meetings, OSE implements the duties of directors. Interest avoidance system: Directors who have an interest in meeting matters with themselves or the legal persons they represent shall explain the important content of their interests to the board of directors at that time. If there is a risk of harming the interests of the company, they shall recuse themselves from discussions and voting, and shall not act on behalf of other directors to exercise their voting rights.

## Conflicts of Interest for the Board in 2023

2023.04.26	Chairman Yueh-Ming Tung was a party to the company's 2013 managerial remuneration distribution case, and he recused himself in accordance with the rules of procedure of the board of directors. The case was presided over by independent director Ching-Tien Tsai, and the other four directors who did not abstain from attending the meeting were consulted for approval.
2023.04.26	In the company's 2023 director remuneration distribution case, Chairman Yueh-Ming Tung and representatives of Chipbond Technology Co., Ltd.: Huo-en Gao and Shi-Wei, Luo were the parties of the case, and they recused themselves in accordance with the rules of procedure of the board of directors. The case was presided over by independent director Ching-Tien Tsai, and the two other directors who did not abstain from attending the meeting were consulted for approval.
2023.10.25	In the case of issuing new shares restrictions on employee right of 2023, Chairman Yueh-Ming Tung was a party of the case and he recused himself in accordance with the rules of procedure of the board of directors. The case was presided over by Director Huo-wen Gao, and the other four directors who did not abstain from attending the meeting were consulted for approval.
2023.10.25	In the personnel case, Chairman Yueh-Ming Tung was a party in the case, and he recused himself in accordance with the rules of procedure of the board of directors. The case was presided over by Director Huo-wen Gao, and the other four directors who did not abstain from attending the meeting were consulted for approval.

Detailed responses to stakeholders were disclosed on the stakeholder area on OSE's website as an important communication channel with stakeholders:

<https://esg.ose.com.tw/%E5%88%A9%E5%AE%B3%E9%97%9C%E4%BF%82%E4%BA%BA%E6%BA%9D%E9%80%9A/>

## Participation of Annual Refresher Courses of Board Members

GRI 2-17

To strengthen the directors' functions and professional capabilities, all directors of OSE are required to obtain at least 6 hours of education per year in accordance with regulations. In 2023, the average training hours for directors reached 8 hours, which is 100% in line with the regulations for directors of listed companies, and continue to study on courses include corporate governance, financial report review, corporate sustainable development, and other contents.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Participation of Annual Refresher Courses of Board Members in 2023

Title	Board Member	Date	Organizer	Course	Training hours	Economy	Environment	Society
Chairman	Yueh-Ming Tung	2023.05.12	Taiwan Corporate Governance Association	From ESG trends and epidemic environment to global and Taiwan tax reform and corporate tax governance	3	V	V	V
		2023.06.26	The Greater Chinese Financial Development Association	Outlook for the global economic situation in the second half of 2023	3	V		
		2023.06.30	Taiwan Corporate Governance Association	Global future risks and opportunities for sustainable transformation	3	V	V	V
		2023.12.05	Taiwan Corporate Governance Association	2024 Global Economic Outlook and Industrial Trends	3	V		
Board Representative	Huo-wen Gao	2023.03.14	Taiwan Corporate Governance Association	Risks and opportunities of climate change trends to business operations	3	V	V	
		2023.06.07	Taipei Exchange	2023 Taipei Exchange ESG Elite Seminar	3	V	V	V
		2023.12.22	Taiwan Corporate Governance Association	Carbon matters: discussion of carbon fees, carbon taxes, carbon rights and carbon trading	3	V	V	
Board Representative	Shi-Wei Luo	2023.03.03	Taiwan Corporate Governance Association	Analysis of key messages and responsibilities in annual reports: in directors' and supervisors' perspectives	3	V	V	V
		2023.04.25	Taiwan Corporate Governance Association	Offensive and defensive strategies in management rights disputes and legal liability risks of company leaders for independent directors	3	V		
		2023.07.25	Taiwan Corporate Governance Association	Common legal issues in corporate merger and acquisition contracts	3	V		
		2023.09.01	Taiwan Corporate Governance Association	Using the professionals of independent directors to help a company grow	3	V	V	V
Independent Director	Ching-Tien Tsai	2023.03.31	National Federation of Certified Public Accountant Associations	Directors' Fiduciary Duties and Liability for Financial Dishonesty	3	V		
		2023.07.26	National Federation of Certified Public Accountant Associations	Case analysis of money laundering and insider trading	3	V		
		2023.10.27	The Securities & Futures Institute	Sustainable Development Practice Seminar	3	V	V	V
Independent Director	Jeng-Ren Chiou	2023.07.07	Taiwan Corporate Governance Association	Explosion of artificial intelligence: technological development and application opportunities of chatbot like ChatGPT	3	V		
		2023.11.10	Taiwan Corporate Governance Association	American Corporate Governance: Historical Evolution and Recent Developments	3	V	V	V
Independent Director	Chia-Hua Hsu	2023.07.06	The Securities & Futures Institute	Technical development and application opportunities of chatbot like ChatGPT	3	V		
		2023.07.18	Accounting Research and Development Foundation	2023 Sustainability Transformation Finance and Disclosure Seminar	3		V	V
Total Training Hours					54	54	30	24

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## The Board's Performance Evaluation

GRI 2-18

To implement corporate governance and improve the functions of the board of directors and functional committees, OSE has established the "Procedures for the Board of Director's Performance Evaluation". In addition to regularly conducting an internal director performance evaluation every year, a professional independent agency or a team of external experts and scholars will conduct external evaluation every three years. The evaluation process needs to be completed before the end of the first quarter of the next year, and the results should be reported to the board of directors, as a reference for the company's improvement in the future. The disclosure of ESG information includes the selection and training of directors among the five aspects of self-assessment.

Procedures for the Board of  
Director's Performance Evaluation



In 2023, the overall performance of OSE's board of directors, functional committees, and individual board members all received positive reviews according to the internal evaluation.

- Board Self-Evaluation: including 5 aspects and 44 indicators.
- Board Member Individual Self-Evaluation: including 6 aspects and 23 indicators. All 6 directors had submitted self-assessment questionnaire.
- Functional committees Self-Evaluation: including 5 aspects and 24 indicators.

Overall Board Performance	Board Member Performance	Board Member Performance
<ul style="list-style-type: none"> <li>• Participation in company operations</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of the company's goals and mission</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of the company's goals and mission</li> </ul>
<ul style="list-style-type: none"> <li>• Enhance the quality of the board's decision-making process</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of the responsibilities of a board member</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of the responsibilities of a board member</li> </ul>
<ul style="list-style-type: none"> <li>• Composition and Structure of the Board</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in company operations</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in company operations</li> </ul>
<ul style="list-style-type: none"> <li>• Election and Continued Training of Board Members</li> </ul>	<ul style="list-style-type: none"> <li>• Maintaining Internal Relationships and Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Maintaining Internal Relationships and Communication</li> </ul>
<ul style="list-style-type: none"> <li>• Internal Controls</li> </ul>	<ul style="list-style-type: none"> <li>• Board Members' Expertise and Continued Training</li> </ul>	<ul style="list-style-type: none"> <li>• Board Members' Expertise and Continued Training</li> </ul>
	<ul style="list-style-type: none"> <li>• Internal Controls</li> </ul>	

According to OSE "Procedures for the Board of Director's Performance Evaluation", OSE's board should receive external performance evaluation every 3 years by independent external consultant or professional scholar team. In 2022, OSE's board has engaged in receiving an external board performance evaluation by "Taiwan Institute of Ethical Business", with self-assessment questionnaire, document review, and on-site visit, therefore we haven't conducted external evaluation by third parties in 2023.

In 2023, the overall performance of OSE's board has been evaluated as good, with average score of 4.84, indicating our board's excellency. On February 22, 2023, OSE reported the evaluation results to the board of directors. In the future, based on the recommendations of the external consultant, OSE would be committed to diversifying board composition, enhancing discussions on sustainable development issues, and strengthening the independence of the department in charge of handling complaints. to enhance the board's capabilities.

For more information of 2023 performance evaluation results of our board of directors, functional committee, and individual board members, please refer to our official website:

<https://www.ose.com.tw/about/about-ose/our-team/#directors>



## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

#### 2.1 Corporate Governance

#### 2.2 Ethical Operations

#### 2.3 Economic Performance and Tax Governance

#### 2.4 Risk Management and Legal Compliance

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

## The remuneration policies Remuneration Policy of Director and Senior Manager

GRI 2-19 、 2-20 、 2-21

The remuneration policies, systems, standards and structures for directors and managers are determined by the remuneration committee. The members of the committee are appointed by the board of directors to meet the qualifications stipulated in Articles 5 and 6 of OSE "Organizational Rules of the Salary and Remuneration Committee". The committee provide remuneration suggestions in a professional, independent, and objective position, and hold regular meetings to review and ensure the competitiveness and rationality of remuneration.

In addition to personal performance, salary payment is also based on the performance of the OSE's operations and the references of other companies. OSE considers the schedule of promoting sustainability affairs, discloses appropriate salary indicators in accordance with the law, and aims to comply with our business philosophy of sustainable management. The remuneration of OSE directors and senior managers includes salary, bonuses, severance pay, etc., which are regularly disclosed in the company's annual report and reported at the shareholders' meeting.

## The Conduct of Corporate Governance Officer

In 2021, OSE's board of directors passed a resolution to set up a corporate governance officer in accordance with the provisions of " Operation Directions for Compliance with the Establishment of Board of Directors by TWSE Listed Companies and the Board's Exercise of Powers ". The manager of the accounting department Ellen Chu will serve as the corporate governance officer. She has years of experience in finance and deliberation in publicly listed companies. Corporate governance officer's main responsibility is to assist in handling matters related board of directors and shareholders' meetings, provide directors with the information needed and comply with laws and regulations, etc.

1. Handle matters related to board of directors and shareholders' meetings in accordance with the law.
2. Prepare minutes of board of directors and shareholders meetings.
3. Assist directors in their appointment and education.
4. Provide directors with the information they need to carry out their business.
5. Assist directors to comply with laws and regulations.
6. Other matters stipulated in the company's articles of association or contract, etc.

## Training Courses of Corporate Governance Officer in 2023

Date	Organizer	Course	Training Hour
2023.06.09	Securities and Futures Institute	2023 Annual Insider Trading Prevention Promotion Conference	3
2023.09.20	Securities and Futures Institute	Analysis of common illegal cases under the Securities and Exchange Act	3
2023.11.30	Accounting Research and Development Foundation	Practical analysis of the latest "Taiwan Sustainable Development Roadmap" and the impact of net-zero carbon emissions on financial reporting	6

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### 2.1.3 The Audit Committee

#### Purpose

The Audit Committee assists the Board of Directors in performing supervisory duties and is responsible for executing the supervisory powers stipulated in the Company Law, the Securities and Exchange Law, the Company's Articles of Association, and relevant laws.

#### Main Responsibility

The main purpose of the operation of the audit committee is to supervise following matters:

- Proper presentation of the financial statements.
- Selection and removal of chartered public accountant and their independence and performance.
- Effective implementation of the internal controls.
- The company complies with relevant laws and regulations.
- Management and control of existing or potential risks of the company.
- OSE hold at least one Audit Committee meeting every quarter and fully communicated internal audit unit and chartered accountants. A total of 4 Audit Committee meetings were held in 2023, and the attendance rate of directors reached 100%.

#### Audit Committee Organization

According to the OSE Audit Committee Organizational Charter, the Audit Committee is composed of all three independent directors. The expertise, professional experience, independence, and the number of concurrent independent directorships of these members abide by the Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies.

<b>Chairman</b>	Independent Director Chia-Hua Hsu
<b>Committee member</b>	Independent Director Ching-Tien Tsai
<b>Committee member</b>	Independent Director Jeng-Ren Chiou

### 2.1.4 Remuneration Committee

#### Purpose

To improve the salary and remuneration system of the OSE's directors, supervisors and managers, OSE salary and remuneration committee is established in accordance with the " Regulations Governing the Appointment and Exercise of Powers by the Remuneration Committee of a Company Whose Stock is Listed on the Taiwan Stock Exchange or the Taipei Exchange ".

#### Main Responsibility

- Regularly review the organizational procedures of the remuneration committee and propose amendments.
- Establish and regularly review the company's performance evaluation standards for directors and managers, annual and long-term performance targets, and salary and remuneration policies, systems, standards, and structures, and disclose the content of the performance evaluation standards in the annual report.
- Regularly evaluate the performance of the company's directors and managers and determine the content and amount of their individual salary remuneration based on the evaluation results obtained from the performance evaluation standards. It also discloses the individual performance evaluation results of directors and managers in the annual report in accordance with regulations, as well as the correlation and rationality of the content and amount of individual salary and remuneration with the performance evaluation results and reports it to the shareholders' meeting.

In 2023, a total of 3 remuneration committee meetings were held, and the attendance rate of directors reached 100%.

#### Remuneration Committee Organization

Per the Remuneration Committee Organizational Charter, the Committee is composed of all three independent directors whose expertise, professional experience, independence. The term of Remuneration Committee member is 3 years, as same as the term of the Board of Directors.

<b>Chairman</b>	Independent Director Ching-Tien Tsai
<b>Committee member</b>	Independent Director Chia-Hua Hsu
<b>Committee member</b>	Independent Director Jeng-Ren Chiou

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## 2.1.5 Internal Control and Internal Audit Management

### Organization and Operation

OSE's Internal Audit function is an independent unit that reports directly to the Board of Directors. Besides informing the Board during its ordinary meetings, it briefs the Chairman, and the Board Audit Committee on a quarterly and on as needed basis.

The Internal Auditing Rules and the management of the internal control system should be assisting the board of directors and managers in inspecting and reviewing defects in the internal control systems as well as measuring operational effectiveness and efficiency and shall make timely recommendations for improvements to ensure the sustained operating effectiveness of the systems and to provide a basis for review and correction. Its scope covers all operational activities and control operations of the company and its subsidiaries.

Most of the audit work is executed according to an annual plan, which needs to be approved by the Board of Directors. Such plan will consider risks that have been identified. Special audits or reviews are conducted as needed. The internal audit is based on the company's established policies, systems, rules, and regulations, etc., and the audit and improvement recommendations of the audit plan are implemented, and the audit report and tracking report are prepared.

The company supplements the review activities by Internal Audit with documented self-assessments by the divisions, and improvement of internal deficiency or abnormal matters from every unit; it consolidates the results of the self-assessments for the Board Audit Committee and the Board of Directors.

There are 3 full time employees dedicated to Internal Audit, including 1 audit supervisor and 2 staff members.

In 2023, the internal audit found no major internal control deficiencies.



### Internal Audit Personnel Appointment and Removal

The appointment or dismissal of Head of Internal Audit shall be approved by Audit Committee and further submitted to the BOD's Meeting for a resolution. The appointment, dismissal, evaluation and review, salary and compensation of internal auditors were handled according to OSE 's regulations and procedures of recruiting, "Employee Promotion Procedure", "Payroll, Allowance, and Bonus Procedure" and" Separation and Leave of Absence Procedure". The evaluation and review of internal auditors are conducted twice a year. Head of Internal Audit report the appointment, dismissal, evaluation and review, salary, and compensation of internal auditors for Chairman's consent.



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## 2.2 Ethical Operations

GRI 2-26 、 2-27 、 205-2 、 205-3 、 206-1

### 2.2.1 Integrity Management Policy and Regulation

GRI 206-1

OSE has always upheld our core values of "Integrity, Innovation, Proactiveness, and Empathy." We believe that corporate integrity and business ethics are fundamental to sustainable governance, and we conduct all business activities with equity and transparency. As such, we've put forth regulations such as the "Code of Business Ethics," "OSE Supplier Code of Conduct," and the "Employee Code of Conduct and Ethics" strictly prohibiting involvement in any unethical business activities. We aim to furnish a culture of ethical operation and good business practices. OSE also has concrete reporting mechanisms with dedicated personnel managing a whistleblower mailbox. The auditing unit supervises and oversees implementation of ethical principles across each department. OSE conducts all business activities in accordance with the law and discloses significant information in compliance with legal requirements for transparency. In cases where there is a conflict of interest, all individuals involved must recuse themselves from voting during board meetings.

To implement the code of conduct and operate with integrity, OSE has formulated "Complaint and Report Handling Procedures" to ensure reporting channels and protections of the privacy and security of the reporter. When signing business contracts with agents, suppliers, customers or other counterparties, OSE would fully understand their integrity management status, and counterparties should add compliance terms of OSE's integrity policies into the contract. If the business transaction partner was a supplier, integrity pledge or declaration would be required to sign and send us.



OSE's Code of Business Ethics



OSE's Code of Ethical Conduct



OSE's Code of Ethical Conduct

### 2.2.2 Implementation of Integrity Regulation Compliance and Training

GRI 205-2

We used multiple communication channels to convey OSE's ethics and morality standards to our employees, including:

- All new hires are required to sign a Job Commitment Letter that includes a declaration of integrity. Orientation training also includes business ethics courses that cover preventing sexual harassment, RBA code of conduct, the Personal Data Protection Act, and standards of ethical conduct, etc. Course content will be updated with the latest external or internal regulations to ensure being in time and accurate, hoping that employees can fully understand the importance and requirement for business ethics conduct, to follow the ethical regulations and implement it in their daily operations.

In 2023, the percentage of OSE employees who had signed declaration of integrity was 100%.

- OSE requires business partners to sign the Declaration of Integrity or attach commitment to integrity in contracts, to ensure both parties engage in fair and transparent business transactions. OSE will also advocate to our supplier and contractors with OSE Supplier Code of Conduct and our policies of labor rights, ethics, environment, occupational safety, and health, etc.

In 2023, a total of 60 OSE new suppliers signed the Declaration of Integrity.

#### Employee Ethical Training Course in 2023

Category	Course Title	Count of People	Total Taring Hour
Corporate Operation and Regulation	Insider Trading and False Financial Reports Discussion	1	6
	Information Security and Trading Secrets Annual Training	4,006	16,024
	Insider Trading Prevention Propaganda	12	8
	Risk Management	5	3
	Social Engineering and Information Security	381	186
	Global Economic Forecast 2H, 2023	1	3
	Global Economic Forecast 2024	1	3
	Transition to ISO 27001 : 2022 Lead Auditor Training	22	352
	ISO 27001 : 2022 Lead Auditor Training	10	400
	Global Risks and Opportunities for Sustainable Transformation	1	3

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### Employee Ethical Training Course in 2023

Category	Course Title	Count of People	Total Taring Hour
Corporate Operation and Regulation	How Can Corporate Internal Control Respond to ESG Regulations	2	12
	How to Improve Risk Management to Increase Company's Value	1	6
	Information Security Introduction	87	43
	Digital Transformation and Digital Evolution	2	12
	Illegal Cases of Auditor and Accountant and How to Respond	2	24
Human Right	Responsible Business Alliance (RBA) Standards	5,517	5,517
	Sexual Harassment Prevention Act & Gender Equality in Employment Act	21	63
ESG	The ESG Trends of The Semiconductor Industry	78	198
	ESG Goal Consensus	46	138
	How ESG Trends and Epidemic Environment Lead to Tax Reform and Corporate Governance Adjustment	1	3
	How ESG Influences Financial Report	1	8
	Green Banking and Corporate Governance	1	8
	BSI Corporate Carbon Reduction and Net Zero Strategy Planning Certification	1	8
	ESG Standards- GRI \ SASB \ TCFD & Corporate Governance Evaluation	171	371
	Create Low-carbon Products with Zero Resource Waste	1	6

### Employee Ethical Training Course in 2023

Category	Course Title	Count of People	Total Taring Hour
ESG	The Challenge of Carbon Asset Management	1	15
	How To Acquire Carbon Rights	1	6
	To Net Zero- Greenhouse Gas Inventory	1	6
	ISO Environment and Energy Management System	1	12
Orientation Training	RBA, Trade Secrets Act, Sexual Harassment Prevention Act, Work Ethics, Personal Data Protection Act	1,390	1,390
Total		11,766	24,834



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### Anti-corruption Communications in 2023

Category of Employee	Anti-corruption Communication (People)	Total (People)	Percentage
Board of Directors	6	6	100%
Managers and above	99	99	100%
Direct Employees	3,072	3,072	100%
Indirect Employees	2,031	2,031	100%
Total	5,208	5,208	100%

### 2.2.3 Reporting and Complaint Channels and Mechanisms

GRI 2-26 、 2-27 、 205-3 、 206-1 、 TC-SC-520a.1

OSE established a Handling Procedures for Complaints and Reports to ensure the implementation of ethical business practices and provide a proper framework for employees, suppliers, and contractors to report and address instances when facing unfair treatment or misconduct. We've also set up internal and external hotline and mailbox. The reporting system and channels were also disclosed on our official website to encourage OSE employees and external stakeholders to report any dishonest or inappropriate behavior.

OSE had no confirmed cases of corruption and did not receive any penalties from the authorities due to corruptions. Additionally, there were no allegations of illegal, unethical, or dishonest business practices lodged against the company.



### Reporting Channels

Suppliers	Reporting Hotline	07-3613131 ext.35174
	Complaints Mailbox	Teson_Chen@ose.com.tw
Employees	Reporting Hotline	07-3613131 ext.68558
	Complaints Mailbox	Suggestion box, 580@ose.com.tw
Clients	Reporting Hotline	07-3613131 ext.68900
	Complaints Mailbox	info@ose.com.tw
Others	Reporting Hotline	07-3613131 ext.68558
	Complaints Mailbox	csr@ose.com.tw

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## 2.3 Economic Performance and Tax Governance

### 2.3.1 Operation Performance GRI 201-1

OSE implemented the business strategy of corporate governance, held briefings and shareholder meetings regularly, and updated financial and business information on the website of TWSE MOPS and our official website in accordance with regulations. Through transparent disclosure, shareholders and investors could know our current operating status. In 2023, there were many crucial international political and economic situations in the world, including inflation, the Ukraine-Russia war, the Israeli-Palestinian conflict, U.S.-China technology and trade competition, and the U.S. carried on high-interest policies, etc. The global economic recovery was slower than expected. However, despite the negative factors, the rise of AI, internet, automotive and other applications led related technologies and products to maintain to grow and drove the development of the industrial chain. In 2023, OSE's revenue was NT\$16,690,436,000, an increase of approximately 7.5% compared to 2022; EPS was NT\$ 2.66, an increase of approximately 31.6% compared to 2022.

Unit: NT\$ 1,000

		2021	2022	2023
Direct Economic Value Generation				
Operating Revenue	Net Sales	15,948,138	15,531,669	16,690,436
	Interest/Dividend/Rental/Royalty Income	101,234	177,150	221,521
	Revenues from sale of assets (Tangible/Intangible)	4,457	20,498	-1,123
Total		16,053,829	15,729,317	16,910,834
Distribution of Direct Economic Value				
Operating Costs	Operating costs	-13,011,394	-13,008,745	-13,375,156
Employee wages and benefits	Salaries, bonuses, incentives, employee benefits (pension, insurance)	-4,171,915	-4,164,179	-4,283,191
Payments to providers of capital	Interest expenses, dividend expenses, preferred stock dividend expenses	-12,332	-759,825	-661,491
Payments to government	Taxes (excluding deferred taxes), fines	-408,595	-319,635	-337,085
Community Investments	Donations, sponsorships, investments	-48	-5,604	-1,441
Total		-17,604,284	-18,257,988	-18,658,364
Retained Economic Value (Generation of Direct Economic Value - Distribution of Direct Economic Value)		-1,550,455	-2,528,671	-1,747,530

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### Consolidated Financial Information

Unit: NT\$ 1,000

	2021	2022	2023
Pre-tax Net Profit	1,939,176	1,768,288	2,218,295
Income Tax Expense	-408,595	-319,635	-337,085
Net profit for the period	1,530,581	1,448,653	1,881,210
Cash payment for income taxes	0	4,982	-87,738

### Financial Subsidies Received from The Government

GRI 201-4

In the past 3 years, OSE has obtained various subsidies from the Taiwan government, including industry upgrading incentives, innovation research and development grants, human GRI 201-4 resource enhancement programs for businesses, and energy-saving performance guarantee plans.

Unit: NT\$

Type of Subsidy	2021	2022	2023
Energy-saving	-	4,500,000	
Startups	240,000	11,650,000	1,850,000
Human Resource Enhancement	403,354	557,334	1,104,163
Research and Development Grants	-	2,703,595	3,551,452
Industry Upgrades	13,738,160	5,949,371	21,655,370
Disaster Relief	700,000	-	
Gender Equality and Friendliness	15,960	-	18,637
Total	15,097,474	25,360,300	28,179,622

### 2.3.2 Tax Governance GRI 201-4

Taxation is a necessary cost of doing business and compliance with laws and regulations. OSE upholds the spirit of high tax compliance and CSR and used adequate tax governance policies and transfer pricing policies, aiming to create corporate value and effectively manage tax risks. We manage tax costs by the principles of prudent operations and reject any intentional use of related-party transactions or illegal practices such as establishing subsidiaries in tax havens to reduce tax obligations by shifting profits to low tax jurisdictions.



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## 2.4 Risk Management and Legal Compliance

GRI 2-23 、 2-24 、 2-25 、 2-27 、 3-3

### 2.4.1 Risk Management

#### Major Theme Management Policy

Impact	Positive: OSE has a global customer and supplier base, and we have implemented risk and compliance management mechanisms to minimize the impact in the event of emergencies. We also ensure that our operations do not negatively impact society and the environment, thus enhancing our image.		
	Negative: The lack of proactive planning for robust risk management and compliance mechanisms exposes us to potential or known risks, which can have a negative impact on our reputation and influence investment decisions by stakeholders.		
Management Mechanism	Policy	To address potential risks arising from macro-environmental changes and evolving consumer demands, OSE has taken effective measures at both the institutional and procedural levels. We ensure timely awareness of domestic and international policies and regulations that may impact our financial and business operations and formulates various management strategies and implementation methods to mitigate risks and educate employees to enhance compliance.	
	Commitment	With industrial development, globalization of economic activities, and technological advancements, companies are increasingly faced with the impact of extreme climate change, political competition, geopolitical conflicts, resource depletion, and cyber-attacks. Considering these threats, our company is actively focused on risk management to minimize the potential risks to our operations.	
	Responsibility	<ul style="list-style-type: none"> <li>Risk Management: All related units</li> <li>Legal Compliance: Financial Support Division</li> </ul>	
	Resource	OSE prioritizes employee education and training to ensure understanding of relevant regulations and potential operational risks. We provide real time updates on regulatory information and help when needed.	
	Complaint Mechanism	Employee section	<ul style="list-style-type: none"> <li>Contact: Human Resource Division Tel : 886-7-3613131 ext.68885 E-mail : 580@ose.com.tw</li> <li>Contact: OSE Union Central 3rd Factory (HQ): 886-7-3613131 ext.68950 IC : 886-7-3613131 ext.62243 E-mail : union_h_ose@ose.com.tw</li> </ul>
		Supplier Section	Contact: Director Chen, Procurement Division Tel : 886-7-3613131 ext.35174 E-mail: Teson_Chen@ose.com.tw
		Client Section	Tel: 886-7-3613131 ext.68900 E-mail: info@ose.com.tw

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

		Items	2023 Goals	2023 Peformances	2024 Goals	
Implement	Goals and Targets	(Indicator deleted) Completed revision of "Risk Management Policies and Procedures"	Submitted to the board of directors for approval in April	Submitted to the board of directors for approval in July	Closed	
		Percentage of completion in developing management procedures for each risk as defined in the Risk Management Policy and Procedures	50%	55%	7 risks	
		(Indicator deleted) Implementation rate of company risk management protocols	-	-	The content of the indicators was included in our internal procedures, so it was deleted.	
		(Indicator deleted) Regularly compile risk management reports for the Board	-	-		
		Risk management training completion rate for employees at each level	The training completion rate for vice presidents and above 100%	100%	The training completion rate for managers 100%	
		Major economic, environmental, and social incidents	0 items	0 items	0 items	
		(new indicator) Understand the carbon rights trading regulations and mechanisms and complete research reports			1 report	
	Specific Measure	Positive Impact Management	• Significant policies, investment projects, endorsements and guarantees, fund loans, bank financing, and other major proposals are evaluated and analyzed by the appropriate departments and implemented based on board resolutions. The internal audit department also develops its annual audit plan based on risk assessment results and oversees effective implementation. This is done to establish a supervisory mechanism and effectively manage various risks.			
		Negative Impact Management	• OSE uses specific processes to identify significant risks and, based on the results, formulate policies and implementation strategies. • Legal compliance is required of all employees, and OSE has a legal affairs department to provide necessary legal advice and assistance. Through updates and revisions to company policies and procedures, we ensure our commitment to legal compliance.			
	Effectiveness Evaluation	• No major data breeches occurred in 2023. • No major economic, environmental, or social incidents occurred in 2023. • No violations of corporate governance, anti-corruption, or the Fair-Trade Act that resulted in fines or penalties occurred in 2023. There were also no insider trading violations of the Securities and Exchange Act.				

### Risk Management

The goal of OSE's risk management is to consider and manage various risks that may affect the operation of OSE through a complete risk management structure, and to integrate risk management into operating activities and procedures. To strengthen the effectiveness of corporate governance and improve OSE's risk management system, we have formulated "Risk Management Policies and Procedures" to ensure OSE's stable operations and sustainable development.

### Risk Management Organization

According to OSE's "Risk Management Policies and Procedures", the board of directors is the highest decision-making unit of OSE's risk management. The board approves risk management policies, procedures, and structures, supervising the operation of the overall mechanism, and ensuring effective risk control. Each risk management unit of OSE should consider the possibility and impact of major risks, identify the risk, conduct analysis, make assessments, make proper responses, review mechanisms, and report regularly to the ESG Committee.

OSE ESG Integration team of ESG Committee should collect the information and report the status to the ESG Committee on a regular basis, and the ESG Committee should report to the Board of Directors at least once a year. In 2023, OSE report on the status of risk management in the fourth-quarter board of directors meeting on October 25.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

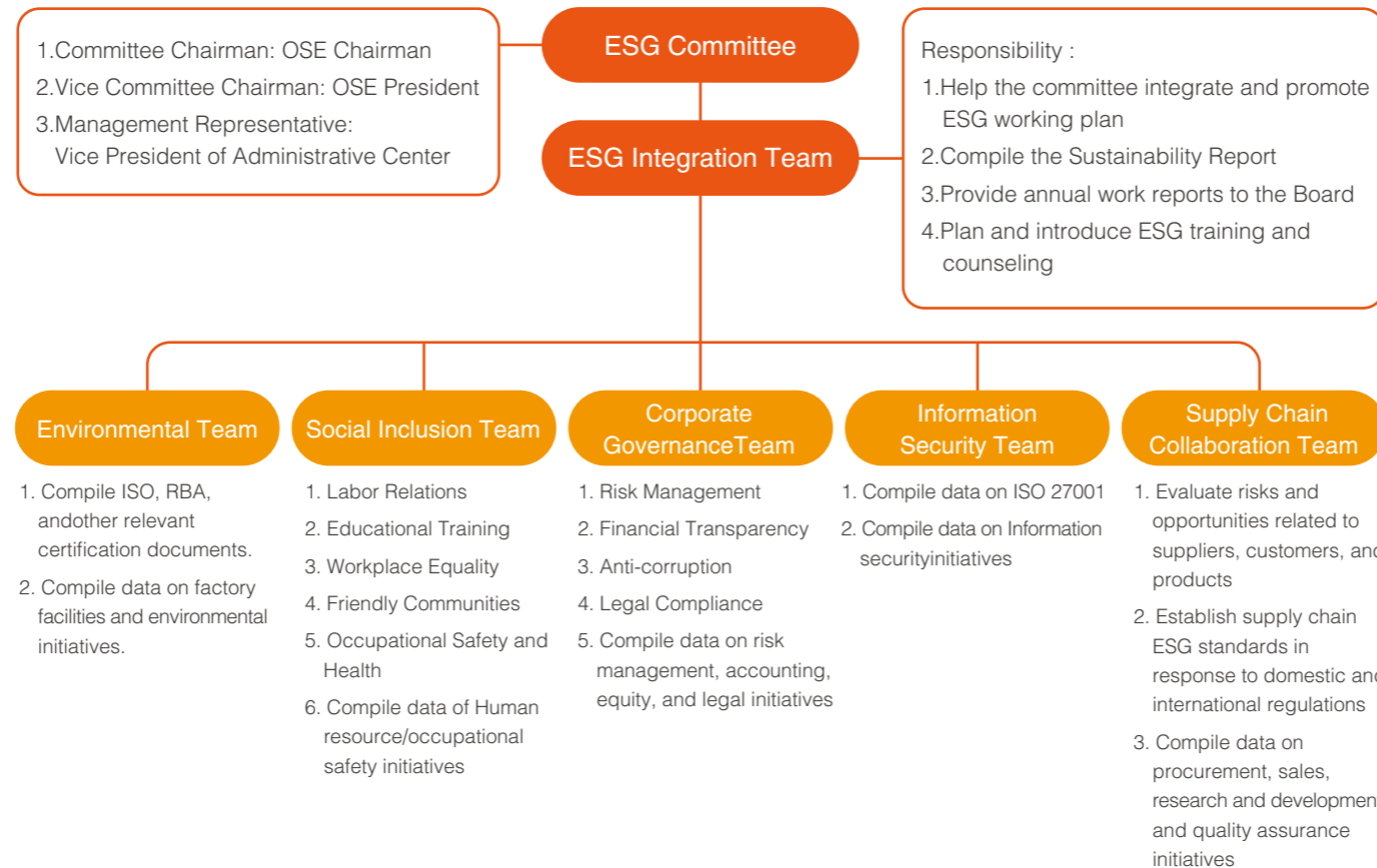
## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### ESG Committee Structure



### Risk Management Strategy

OSE adheres to the concept of sustainable management and establishes a risk management structure. Through the participation of the board of directors, functional committees and senior managers, the company's major risk strategies are determined, and risks which have impacts on OSE's strategies and goals will be identified and controlled. We hoped to formulate comprehensive, forward-looking, complete, corresponding risk control mechanisms and practice to ensure the outcome of OSE's strategic goals.

OSE promotes a top-down risk management culture and provides employees with professional training on risk management, to integrating risk management awareness into daily decision-making and operational activities, shaping a total risk management culture.

### Risk Identification

The ESG Committee identifies major risks in accordance with the principle of materiality and the assessments with reference to the Responsible Business Alliance (RBA) requirements. Each risk control units need to report risk management strategies at the monthly management meeting and review from the institutional perspective, and the current progress. By doing so, we hope to formulate various strategies and control methods for risk management.

The risks and management strategies identified by OSE in 2023 were listed and explained as follows:



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

### 2.1 Corporate Governance

### 2.2 Ethical Operations

### 2.3 Economic Performance and Tax Governance

### 2.4 Risk Management and Legal Compliance

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

major themes	risk assessment project	Risk Management Policy / Strategy
Environmental	Climate change and environmental risks	<ul style="list-style-type: none"> <li>OSE has passed the verification of management systems such as ISO14001, ISO46001 and ISO50001, and conducted the operations by responsible units and management organizations. We continued to pay attention to the issues such as energy, water resources, waste, air pollution, and strengthen the knowing of employees through education and training to enhance OSE's emergency response capabilities and reduce risks caused by natural disasters, environmental accidents, and climate change, etc.</li> </ul>
Social	Occupational Hazard Risk	<ul style="list-style-type: none"> <li>OSE has passed ISO 45001 and CNS45001 verification. We conducted hazard identification and risk assessment regulaly on the aspects of operating environment, equipment, tools, works, etc., and determines the risk level based on hazard severity, frequency of occurrence, and accident probability. We established procedures and carried out immediate risk control measures for high-risk working environments to reduce incidents.</li> <li>We Identified higher-risk working environments, such as workplaces with ionizing radiation, noise, hazardous chemicals and dust, and provided education, training, personal protective equipment and regular special health inspections to the personnels who work in these environments, to track and ensure the occupational health and safty of people.</li> </ul>
	Raw material prices and supply chain risks	<ul style="list-style-type: none"> <li>OSE formulated supplier management policies and asked suppliers to sign codes of conduct through procedures to ensure the suppliers meet the needs and expectations of OSE and our customers. In the selection of suppliers, we conduct comprehensive assessments to ensure the supply of raw materials, and the quality and delivery time could meet our requirements.</li> <li>We implemented a second source policy for important non-exclusive raw materials to avoid supply interruption and risks caused by natural disasters, environmental issues, or other inevitable factors.</li> <li>We required suppliers to conduct conflict mineral investigations to ensure that their products do not contain any conflict mineral.</li> </ul>
Corporate Governance	Information risk	<ul style="list-style-type: none"> <li>OSE formally established the Information Security Management Committee in August 2023, with the senior deputy general manager of the Information Center serving as the Chief Information Security Officer to manage and review the information security system. An information security officer was also established to implement the planning and inspection, to improve OSE's information security system.</li> <li>The Information Security Department was also established in November 2023 as OSE's responsible department for information security. Its responsibilities include information security alarm, vulnerability, system, and equipment management. Also, they monitored incident, process, progress, and information security risk identification, etc.</li> <li>We officially obtained ISO 27001:2022 certification in 2023. We would continue to improve our information management capabilities based on the standard and reduce the impact of information security risks.</li> </ul>
	Financial risk and investment risk	<ul style="list-style-type: none"> <li>OSE monitored interest rate at any time and evaluated whether to borrow money with fixed or floating interest rates to reduce the costs. We also paid attention to the fluctuations of market prices at all times, maintained good relationships with suppliers and customers, and collect information on inflation and government policiese to conduct appropriate desicson.</li> </ul>

## Reporting Mechanism

Through the Client Section, Supplier Section, and employee communication and complaint channels available on our website, OSE actively uncovers potential risks to help us better monitor risk levels within the company.

There was no major economic, environmental, or social incidents occurred at OSE in 2023.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

2.1 Corporate Governance

2.2 Ethical Operations

2.3 Economic Performance and Tax Governance

2.4 Risk Management and Legal Compliance

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

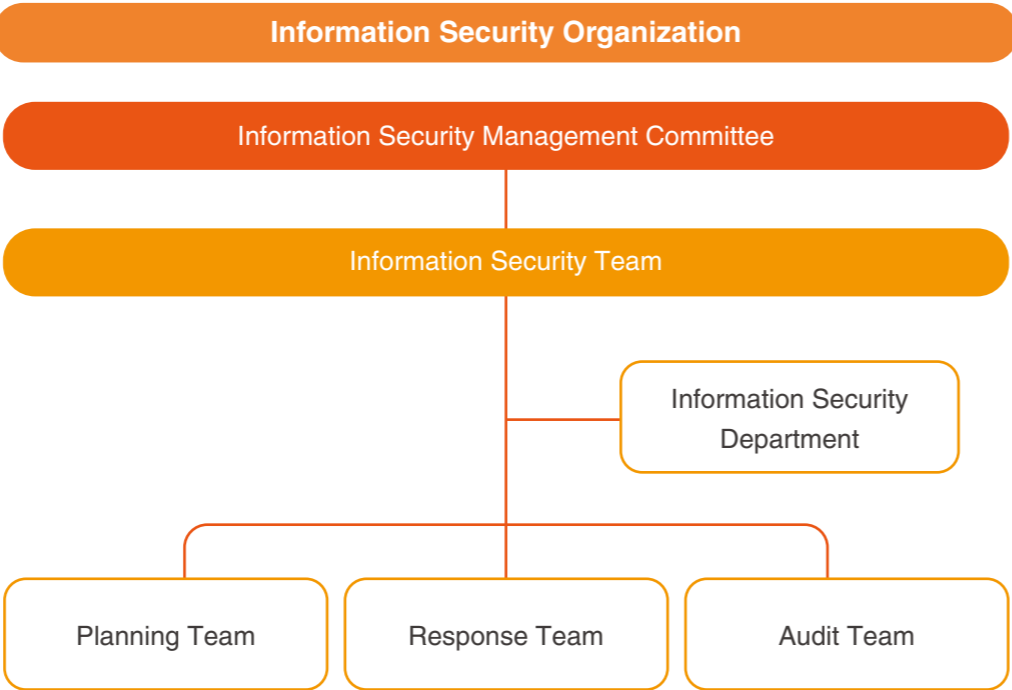
Appendix

### 2.4.2 Information Security

#### Information Security Management Structure

OSE officially established the Information Security Governance Committee in August 2023 to guide, evaluate and monitor the company's information security. The chief security officer (CSO) of OSE, approved by OSE board of directors, is the senior deputy general manager of the information center, who manages and reviews the information security system. An information security manager is also set to implement the security plan, inspection, and improvement of OSE's system.

Facing the severe Internet environment, the importance of information security has been highly increased. Therefore, OSE considered the future of information security regulations and situations, established the Information Security Management Department in November 2023, and set more than 2 coordinators according to Taiwan's regulation, responsible of OSE's information security affairs. The department's duties include alarm management, vulnerability management, information security system and equipment management, incident monitoring, and identification of information security incidents, etc.



Information Security Organization Responsibility		
Information Security Management Committee	Guide, evaluate and monitor the OSE's information security affairs	
Chief Information Security Officer and Executive Secretary	Review on information security management system and measures	
Information Security Team	Information Security Officer and Information Security Management Representative	Carry out the planning, implementation, inspection, and improvement of information security management system
	Planning Team	<ul style="list-style-type: none"> <li>Develop and maintain the management system.</li> <li>Perform risk assessment and management actions.</li> <li>Plan the goals, monitor the performance and measurement, and conduct analysis and evaluation.</li> <li>Plan information security education, training, and advocacy programs.</li> </ul>
	Response Team	<ul style="list-style-type: none"> <li>Implement and monitor information security control measures.</li> <li>Report and handle information security incidents.</li> <li>Plan and drill for operational continuity and disaster recovery.</li> </ul>
	Audit Team	<ul style="list-style-type: none"> <li>Develop and perform information security internal audits.</li> <li>Write internal audit reports.</li> <li>Track the aftermath improvements and weakness.</li> </ul>

## Contents

## Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

#### 2.1 Corporate Governance

#### 2.2 Ethical Operations

#### 2.3 Economic Performance and Tax Governance

#### 2.4 Risk Management and Legal Compliance

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

## Appendix

### Information Security Plan

OSE obtained ISO 27001:2022 certification in September 2023, demonstrating the improvement of information security management, and would continue to strengthen our capabilities and reduce the impact. In addition, we conducted Business Impact Analysis (BIA) in August 2023. Based on the results of diagnosis and analysis, we had carried out recovery plan and improvement strategies. We will keep implementing the strategies in 2024, thereby shortening the disaster recovery time, to meet the all the needs of continuing operation, also search for the suitable insurance plan.

The internal information security reports are made regularly by OSE information security related units and report to the chairman, general manager, and the deputy general manager of the information center. An information security report includes network usage status, anti-virus software detection status, firewall detection and blocking records, social engineering drill results, etc. In 2023, no major information security incidents occurred.

In 2023, there was no occurrence of incident of major information security risks.



ISO27001: 2022 Charter Ceremony, October 2023

2023	
Objectives	Description
External Connection	Introduced a zero-trust architecture, complied with the principle of least privilege, and combined with the existing two-factor authentication to make external connections more secure.
L1 System Recovery Time and Backup System	Completed the Business Impact Analysis (BIA), brought in recovery strategy improvements, and implemented the strategies to shorten the disaster recovery time and meet the needs of continuing operation.
Social Engineering Drills	Conducted quarterly social engineering drills (phishing emails). All employees are required to pass the drills with 100% success rate. For those who did not pass, they were submitted to training and testing until they passed, to enhance the ability to recognize and respond to phishing This drill has been performed 4 times in 2023, including 8,842 times of employee participations.
Information Security Education and Training	Implemented operational procedures and legal requirements trainings to the board members, executives, and employees through educational programs. New employees and existing staffs had to receive information security training, and periodic awareness campaigns as well. In 2023, there were 4,642 counts of people <sup>Note</sup> received information security training, and the overall training hours of information security reached 17,078 hours.
Endpoint Protection	Introduced next-generation anti-virus software that could protect against known and unknown threats and attacks. It also featured machine learning and behavioral analysis to prevent fileless and malicious attacks by hackers. In addition, through proactive system and network monitoring, possible threats and vulnerabilities are proactively identified.

Note : Due to OSE's information security education and training plan, the company's direct personnel are scheduled for training in each quarter. This ESG report used December 31, 2023, as the data cutoff, so it could only show some of the trained direct personnel, and that made the number of trained personnel less than the total number of employees.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

2.1 Corporate Governance

2.2 Ethical Operations

2.3 Economic Performance and Tax Governance

2.4 Risk Management and Legal Compliance

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix

2.4.3 Compliance GRI 2-27

Practice of Compliance

OSE attaches great importance to legal compliance. To ensure that our operating behaviors comply with local laws and regulations and avoid violating the law, which will make us suffer from fines and reputation crisis and cause financial losses to the company, we set up internal procedures and regulatory review the changes in policies and laws that may have a significant impact on our business or finances. OSE also continues to adopt laws and regulations into our policies, educate employees through courses, and monitor implementation to ensure that our operating activities fully comply with the regulations like environmental protection, labor, occupational safety, etc. to pursue sustainability.

OSE uses 50% of the upper limit of regulatory penalties as our disclosure standard for major fines. In 2023, there were 0 cases of fines for violating laws of corporate governance, insider trading, competition, trademark and intellectual property, business secrets, environmental protection, and other regulations.

In addition to the above, there was 1 Labor Standards Act incident in 2023. The case happened in 2022 but with penalties determined in 2023. To fulfill our value of corporate social responsibilities, OSE has reiterated the legal requirements for extended working hours with supervisors, arranged manpower to avoid overtime, and paid wages for extended working hours in accordance with the law. We will continue to control working hours and use the data of the attendance system to effectively manage. If abnormal conditions are discovered, we will promptly remind the supervisor on the importance of working time control from time to time.

Description			
Law	Provision	Penalty	Remedy
Article 24-1 of the Labor Standards Act	Worker extended his/her working hour for 0.5 hour, while haven't been recorded by system.	50,000	The case happened in 2022 but with penalties determined in 2023. OSE has reiterated the legal requirements for extended working hours with supervisors, arranged manpower to avoid overtime, and paid wages for extended working hours in accordance with the law.



Contents

Foreword

1. Operations and  
Governance

2. Honesty and Integrity

3. Environmental  
Sustainability

4. Supply Chain and Product  
Management

5. Sustainable Talent  
Management

6. Inclusive Community

Appendix

# Environmental Sustainability

## 3.1 Environmental Responsibility and Commitment

## 3.2 Climate Change and GHGs Management

## 3.3 Water Resources Management

## 3.4 Waste Management



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Sustainable Performance and Corresponding SDGs

Practice the United Nations Sustainable Development Goals	SDGs Specific Goals		2023 Years Sustainable Performance
SDG 6 Clean drinking water and cleaning equipment	6.4	Increase water use efficiency across industries	The factory improved water efficiency and introduces solutions such as pure water system concentrated drainage (ROR) recycling, continuous wall drainage recycling, and wastewater recycling to increase the recovery rate.
SDG 7 Affordable clean energy	7.3	Improve energy efficiency	Reduced the number of hours that oversupplied public equipment is turned on, replace old equipment, and replace LED lighting to improve energy efficiency to increase power savings.
SDG 9 Responsible consumption and production	9.4	Improve energy efficiency and adopt clean and environmentally friendly technology and industrial processes	Each factory has completed the ISO 14001 environmental management system, and the Third Factory (HQ) and the Third Factory (AT) have introduced the ISO 50001 energy management system and the ISO 46001 water resource efficiency management system.
S DG 13climate action	13.1	Strengthen post-disaster recovery and adaptation capabilities to natural disasters and climate-related risks	Introduce TCFD, grasp climate risks and opportunities, incorporate climate change measures into organizational strategies and planning, and reduce carbon emissions
	13.2	Integrate climate change measures into strategy and planning	
	13.3	Raise awareness and enhance organizational capabilities in risk reduction, adaptation, impact reduction and early warning of climate change	

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

# 3.1 Environmental Responsibility and Commitment

GRI 2-23、2-24、2-25、3-3、TC-SC-110a.2

## Major Theme Management Policy

Impact	<p>Positive: We focus on environmental and natural protection. The depletion of earth's natural resources is an issue of global concern. We will continue to promote various energy conservation and reduction projects based on the existing ISO 14001 environmental management system, ISO 50001 energy management system and ISO 46001 water resource efficiency management system as well as effective environmental management.</p> <p>Negative: Insufficient power/water supply leads to power/water shortage, which affects production and delays shipments, damaging OSE's reputation and affecting customer confidence in placing orders.</p>	
Management Mechanism	Policy	<p>OSE continues to work hard to implement and promote energy-saving measures, aiming to gradually replace and prioritize the purchase of high-efficiency, low-energy-consuming equipment, and increase the recycling and utilization of water resources. We actively comply with policies and laws and fulfill corporate social responsibilities. The control and reduction of greenhouse gas emissions has become an international trend. In response to the global warming issue, OSE is dedicated to greenhouse gas emission inventory and control, hoping to reduce greenhouse gas emissions.</p>
	Promise	<p>1. Comply with government environmental protection, energy, water resources management laws and other requirements, and strive to comply with international advanced environmental protection regulations.</p> <p>2. In line with OSE's business strategy, we carry out our commitment to the environmental protection, the conservation of energy and water resources and use them effectively. Also, we improve waste reduction and recycling technology, reduce pollution emissions, and protect the earth's ecological environment.</p> <p>3. Implement energy-saving plans and develop renewable energy.</p> <p>4. Public commitment: <a href="https://esg.ose.com.tw/%e7%92%b0%e5%a2%83%e8%b2%ac%e4%bb%bb%e8%88%87%e6%89%bf%e8%ab%be/">https://esg.ose.com.tw/%e7%92%b0%e5%a2%83%e8%b2%ac%e4%bb%bb%e8%88%87%e6%89%bf%e8%ab%be/</a></p>
	Responsibility	<p>Environmental Management: Safety Management Department</p> <p>Energy Management/Water Resources Management: Facility Department</p>
	Resource	<p>We invest financial and human resources to achieve our responsibility and commitment of environment. In terms of environmental protection expenditure, approximately NT\$9 million in maintaining and updating pollution prevention / control equipment in total.</p>
	Complaint Mechanism	<p>Through regular and occasional meetings of the Occupational Safety, Health, Energy and Water Resources Management Committee and the ESG Committee, we listen to the opinions of the public and stakeholders on environmental issues and take their suggestion into our future projects for formulating OSE's environmental management.</p> <p><a href="https://www.ose.com.tw/about/about-ose/contact/">https://www.ose.com.tw/about/about-ose/contact/</a></p>

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Major Theme Management Policy

Implement	Goals And Objectives	<ul style="list-style-type: none"> <li>Promote and publicize energy-saving measures, gradually replace and prioritize the purchase of high-efficiency, low-energy-consuming equipment, actively comply with energy policies and laws, and fulfill corporate social responsibilities.</li> <li>The control and reduction of greenhouse gas emissions has become an international trend. In response to the global warming issue, OSE devotes itself to greenhouse gas emission inventory and control, hoping to reduce greenhouse gas emissions.</li> </ul> <p><b>Water Resource Management</b></p> <ul style="list-style-type: none"> <li>OSE cherishes water resources and continues to work hard to promote water use reduction, recycling and reuse, to increase the recycling and utilization rate of water resources.</li> <li>Each factory is equipped with appropriate wastewater treatment facilities and has obtained an environmental license, and operates with the license. Also, we conduct regular wastewater monitoring and management.</li> <li>Take appropriate precautions to prevent contaminated stormwater runoff and establish emergency response measures to maintain the stability and reduce pollution.</li> </ul> <p><b>Waste Management</b></p> <ul style="list-style-type: none"> <li>Comply with the Waste Disposal Act and related regulations, and fulfill our due diligence obligations to investigate the contractors which deal with the disposal.</li> <li>To achieve sustainable utilization of resources and develop circular economy, we reduce the waste from the source to improving resource recovery rate and reducing the amount of industrial waste.</li> </ul>
	Specific Action	Conduct inspections and audits in accordance with ISO 14001 Environmental Management System, ISO 50001 Energy Management System, ISO 46001 Water Resources Efficiency Management System, ISO 14064-1:2018 Greenhouse Gas and other standards. In 2023, a total of 4 internal audits and 8 customer audits were conducted.
	Effectiveness Evaluation	<p>OSE regularly conducts ISO 14001:2015 environmental management system, ISO 50001:2018 energy management system and ISO 46001:2019 water resource efficiency management system verification and conducts greenhouse gas inventory and verification in accordance with ISO 14064-1:2018 every year.</p> <p>To effectively implement sustainable environmental management, the Occupational Safety, Health, Energy and Water Resources Management Committee meetings are held regularly every quarter to review the implementation status of various environmental, safety, health, energy, and water planning matters. Environmental, safety, health, energy, and water resources management are held regularly every year. Review meeting to review the operational performance of the environmental, safety, health, energy, and Water Resources Management system.</p> <p>The number of violations of environmental laws and regulations in 2023 is 0.</p>

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Environmental policies and commitments

OSE were founded in the 1970s. Our company's main services are semiconductor packaging, testing and electronic product manufacturing services. In terms of environmental protection, safety and health, energy, and water resources management, we adhere to our business philosophy of "integrity & sustainability" and are committed to preventing pollution, improving safety, promoting health, and fulfilling our corporate social responsibilities. To achieve the above purposes, we promise to do the following matters:

- Comply with government environmental protection, safety and health, energy, water resources management laws and other requirements, and strive to comply with international environmental protection, safety, and health related regulations.
- In line with OSE's business strategy, we carry out our commitment to environmental protection, conserving energy and water resources and using them effectively, reducing waste and improve our capabilities of recycling, preventing pollution emissions, and protecting the earth's ecological environment.
- Strengthen what we have planned for safety of production activities to reduce risks, prevent injuries and diseases, create a safe, hygienic, and comfortable working environment, and promote employee health.
- Develop green production, strengthen supply chain management, and create green product competitiveness.
- Communication, coordinate, and consult with employees and encourage their participation to continuously improve the performance of environmental, safety, health, energy, and Water Resources Management.

The depletion of earth's energy resources is a global concern issue. In our existing ISO 14001 environmental management system, we promote various energy conservation, waste reduction and other environmental management plans, such as using low energy lighting, building wastewater recycling and treatment equipment to reduce the excessive use of energy and resources.

We pay close attention to climate change issues and perform risk identification and assessment. Global climate change is mainly caused by human activities and greenhouse gas emissions and result in high temperatures, water shortages and other environmental issues, which may have an impact on corporate production activities. OSE conducts greenhouse gas emissions inventory, third-party verification and implement control plans every year. We establishes our short-, medium-, and long-term carbon reduction goals, promote effective measures to reduce greenhouse gas emissions, and jointly safeguard the earth's ecology and environment.



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## 3.2 Climate Change and Greenhouse Gas Management

GRI 2-23 、 2-24 、 2-25 、 3-3

### Major Theme Management Policy

Impact	The extreme weather caused by climate change and global warming is gradually affecting all parts of the world. OSE takes mitigation and adaptation to climate change as one of our business strategies for environmental sustainability. The ESG Committee has launched short-, medium-, and long-term goals and plans to implement greenhouse gas management to protect the earth.	
Management Mechanism	Policy	OSE adheres to our business philosophy of "integrity & sustainability", implements greenhouse gas management, and is committed to preventing pollution, improving safety, and health, fulfilling corporate social responsibilities, and jointly safeguarding the earth's ecology and environment. Public Commitment: <a href="#">Environmental Responsibility and Commitment – OSE Electronics-Corporate ESG (ose.com.tw)</a>
	Promise	In line with OSE's business strategy, we carry out our commitment to environmental protection, conserving energy and water resources and using them effectively, reducing waste and recycling technology, improve prevention and reduction of pollution emissions, and protect the earth's ecological environment. <ul style="list-style-type: none"> <li>Comply with laws and regulations: Greenhouse gas inventory, verification, and registration.</li> <li>Energy conservation: Replace old facilities with new ones and create green energy generating.</li> <li>Implement sustainability: Energy conservation and promotion.</li> </ul>
	Responsibility	Environmental Team of the ESG Committee
	Resource	OSE invests human capitals, financial and technical resources to assess, update, maintain and manage energy use in our factories. NT\$32,260,000 was invested in the energy-saving project in 2023.
	Complaint mechanism	Contact us through emails, phone calls, meetings, suggestion boxes, etc. Internal compliant e-mail: 580@ose.com.tw Internal compliant hotline: 07-3613131 ext. 68885 External compliant e-mail: csr@ose.com.tw External compliant hotline: 07-3613131 ext. 68558

### Major Theme Management Policy

					2023 Goals	2023 Performances	2024 Goals
Implement	Goals and objectives	low carbon energy	Improve energy efficiency	The electricity saving rate which is greater than the annual power demand	2.1%	-5.1%	3.1%
				(Indicator deleted) Electricity savings increased compared to the base year	2.1%	-2.9%	The execution and calculation overlap with the "power saving rate is greater than the annual power demand" indicator, so it is deleted.
				Factories updated to building energy efficiency level 1	-	-	Plan for medium to long term
		Use renewable energy	Consumption of self-generating solar energy accounting for the total electricity consumption.	0.16%	0.1%	0.31%	
			Consumption of purchased renewable energy accounts for total electricity consumption	0%	0%	0.88%	
		greenhouse gas management	greenhouse gas reduction	Greenhouse gas emission verification coverage rate	100%	100%	100%
				Greenhouse gas emission intensity decreased compared with the base year	0.12%	2.50%	0.2%
				Greenhouse gas emission category 1 and 2 decrease compared with the base year	0.80%	0.00%	1.8%
		Specific action	Category 1: Improve product transportation efficiency Category 2: Improve energy efficiency and use green energy				
	Effectiveness Evaluation	In 2023, A total of 12 monthly legal inspections were achieved. A total of 4 Occupational Safety, Health, Energy and Water Resources Management Committee meetings were held quarterly. A total of 3 occupational safety, health, energy, and Water Resources Management review meetings were held, with a compliance rate of 100%. The achievement rate of 2023 plans were 75%. (There were 4 plans in total, 3 cases have been closed, and the remaining 1 case would cross the year.)					

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

3.1 Environmental Responsibility and Commitment

3.2 Climate Change and GHGs Management

3.3 Water Resources Management

3.4 Waste Management

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix

3.2.1 Climate Change Related Financial Framework Disclosure (TCFD) GRI 201-2

From the international "Paris Agreement" to the domestic adoption of the "Climate Change Response Act", it is obvious that domestic and foreign countries are paying more attention to the impact of extreme weather caused by global climate change. Therefore, we refer to the Task Force on Climate-Related Financial Disclosures standards (TCFD) of the International Financial Stability Board (IFSB), based on the disclosure framework of "governance", "strategy", "risk management", "indicators and targets", etc., to strengthen OSE's climate-related disclosure framework, Identify and respond to risks and opportunities, formulate governance strategies for climate risks and opportunities, and strengthen climate change management.

Governance	Strategy	Risk Management	Metrics and Goals
<ul style="list-style-type: none"> <li>The ESG Committee is the highest-level organization of OSE in response to climate change.</li> <li>The committee shall report the implementation status and target plans to the Board of Directors at least once a year.</li> <li>The ESG Integration Team under the committee is responsible for summarizing and promoting ESG work plans and coordinating various teams.</li> <li>Each team should track its progress in the monthly supervisor's work report and report the status of implementation of its goals in the quarterly ESG meetings.</li> </ul>	<ul style="list-style-type: none"> <li>According to OSE's target management, climate-related risk and opportunity projects are defined into three categories: short (0-3 years), medium (3-10 years), and long-term (more than 10 years).</li> <li>Assess the potential impact of climate risk factors on OSE's strategy, operations, and financial planning.</li> </ul>	<ul style="list-style-type: none"> <li>The ESG Integration team and other teams under the ESG Committee should identify climate change risks and opportunities based on the TCFD framework.</li> <li>Based on the result of identification of climate risks and opportunities, each team should formulate response strategies and key measures and report them in the target management of the ESG Committee.</li> <li>If a team failed to achieve its annual goals, the team needs to report the reasons, impacts and subsequent reinforcing measures at the quarterly meetings of the ESG Committee.</li> </ul>	<ul style="list-style-type: none"> <li>OSE should conduct greenhouse gas inventory in accordance with ISO 14064-1 and obtain third-party verification.</li> <li>Greenhouse gas emission intensity in 2024 should decrease by 0.2% compared with the base year.</li> <li>In 2024, greenhouse gas emission scope 1 and 2 should decrease by 1.80% compared with the base year.</li> <li>The base year is 2021.</li> </ul>

•Climate Governance Architecture

To implement the sustainable development and operation management of OSE, we established the ESG Committee in 2022. The responsibilities of the committee include formulating corporate sustainable development strategies, reviewing sustainability promotion plans, tracking the implementation of goals or plans, and providing suggestions to each implementing unit. The ESG Integration Team under the committee is responsible for summarizing and promoting ESG work plans and coordinating the sustainability planning of each team to enhance the performance of three major aspects of action: environmental sustainability (E, environmental), social responsibility (S, social) and corporate governance (G, governance).

Each team is required to regularly provide target progress and implementation status to the ESG Integration Team, and their data will be summarized and reported at the quarterly meetings of the ESG Committee, and then the summary report will be reported to the board of directors at least once a year. OSE evaluates sustainable performance, reviews the results of actions, and plans future goals so that our development direction is consistent with our commitment and policies.

•Climate Change Risk And Opportunity Assessment

To identify the risks and opportunities of climate change, which OSE should give priority to and respond to, OSE's internal departments evaluate climate-related risks and opportunities, as well as the likelihood of occurrence and degree of impact, and identify climate risks and climate opportunity issues that are important to us, also incorporate response measures into management.

Amid the numerous climate change risks and opportunities, OSE first collects domestic and foreign research to identify risks and opportunities that are common to domestic and foreign semiconductor industry, and then selects the risks and opportunity issues related to OSE based on the issues that are also currently focused by our peers.

Based on the selected risks and opportunities, we analyze the significance of the impact of those issues on OSE's operations. The analysis includes the degree of impact on OSE (including financial, operational, reputational image and other indicators) and the period of impact (short-term, medium-term, or long-term).

After having results of our internal analysis, we rank the significance of various issues, summarize OSE 's overall major climate risks and opportunities, reported them to senior officers for confirmation, and integrated them into OSE's overall risk management.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

3.1 Environmental Responsibility and Commitment

3.2 Climate Change and GHGs Management

3.3 Water Resources Management

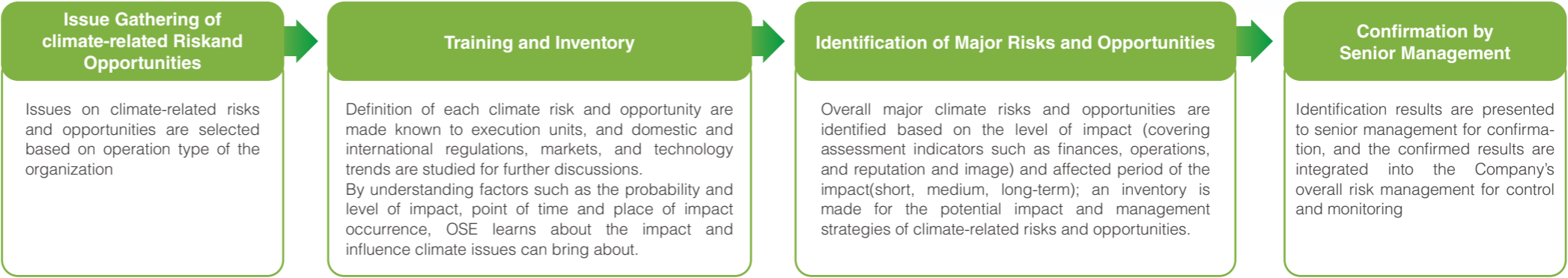
3.4 Waste Management

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix



Key Climate Risk Identification and Adaptation Strategies

Climate-Related Risk Issues		Potential Impact on Ose	Impact on The Process	Adapt Management Strategies
Physical risk	Increased severity and frequency of extreme climate events (typhoons, floods, heavy rainfall, etc.)	Due to strong winds or heavy rainfall, factory equipment may be damaged, causing factory service interruption and production line shutdown. If production line was affected, the business goals cannot be achieved, resulting in revenue decline.	short medium long	<ul style="list-style-type: none"><li>• The underground driveway is equipped with a waterproof gate to prevent stormwater from entering the basement and damaging the equipment.</li><li>• The countermeasure for factory equipment on 1F is to use sandbags to block water.</li><li>• The RF equipment is equipped with a backup machine and can be switched when necessary.</li><li>• More than 2 suppliers shall be secured for backup supply.</li><li>• Conduct monthly material safety inventory inspections to reduce the risk of material shortages.</li><li>• Investigate supplier operations and material supply status from time to time and in a quarterly basis, and initiate countermeasures.</li></ul>
	Changes in rainfall patterns, weather, and extreme water shortage	Due to the occurrence of extreme water conditions, reservoirs must depressurize, restrict water supply, or even announce water outages, which may lead to water supply interruptions, production impacts, and business targets failures, resulting in revenue declines.	short medium long	<ul style="list-style-type: none"><li>• Cooperate with local water providers and regularly contract with water truck companies.</li><li>• Equipped with wastewater and RO water recycling systems to improve water utilization.</li><li>• Purchase water-saving equipment.</li><li>• Learn more about information and strategies from peers.</li></ul>
Transition risk	Renewable energy regulatory restrictions and increasing demand	The current self-generating renewable energy capacity of OSE was 1,627kW. Due to site constraints, it is impossible to add enough renewable energy power generation equipment. Additional green power needs to be purchased, which will increase capital expenditures or operating costs.	medium term (3-10 years)	<ul style="list-style-type: none"><li>• The renewable energy installed capacity E. 3rd Factory is 435kW (self-generating).</li><li>• In 2024, it is expected to purchase 1.4 million kilowatt-hours of green power certificates.</li></ul>

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

Climate-related risk issues		Potential impact on OSE	Impact on the process	Adapt management strategies
Policy and regulatory risks	Carbon pricing	<p>The "Climate Change Response Act" and related laws and regulations have been implemented one after another. It has been established that the government will levy carbon fees by the end of 2024, after the announcement of relevant regulations, resulting in an increase in operating costs.</p> <p>In response to domestic and international trends, supply chain demands, and the potential for Taiwan to implement cap control, OSE may need to purchase carbon rights through the Taiwan Carbon Rights Exchange, if we have been regulated or received supply chain requirements, resulting in an increase in OSE's operating costs.</p>	short term (0-3 years)	<ul style="list-style-type: none"> <li>The ESG Committee was established to set climate change management goals.</li> <li>Acquire ISO 50001 energy management system certificate.</li> <li>The energy-saving and carbon-reduction target for 2024 is to decrease 1% compared to the previous year.</li> <li>Implementation of management plans for energy conservation and carbon reduction: Replacement for water chiller of Jing 3rd Factory (AT), and replacement for lighting equipment of Central 3rd Factory (HQ), Jing 3rd Factory (AT) &amp; I Neihuan S. Factory I (IC).</li> </ul>
	Emissions reporting obligations	<p>The Ministry of Environment requires companies with Scope 1 plus Scope 2 GHG emissions exceeding 25,000 tons of CO<sub>2</sub>e to report every year, and their annual emissions must be verified by a third party. OSE's Central 3rd Factory (HQ), Jing 3rd Factory (AT) has been reported data since 2023. If failed to report, the company will be fined, resulting in increased operating costs.</p> <p>Taiwan has launched the sustainable development roadmap for listed companies since 2023. All listed companies must complete carbon inventories by 2027 and the third-party verifications by 2029. The increasing need of verification may result in increased management costs.</p>	short term (0-3 years)	<ul style="list-style-type: none"> <li>Carry out carbon inventory every year and complete third-party verification by the end of June every year.</li> <li>Annual reports and sustainability reports are issued every year to update and disclose information.</li> <li>Provide monthly data, assessment, improvements, and annual compliance confirmation to meet stakeholder like authorities or customers' expectations.</li> <li>Work reminder will be sent on the 25th of each month, and the review meeting of the results of environmental, safety, health, energy, and Water Resources Management for the previous month will be conducted before the 15th of each month.</li> </ul>
Market	Customer preferences change	<p>The design of customers' green products requires that the materials and sources selected by OSE must comply with international environmental standards, such as RoHS, REACH, and non-use of conflict minerals, resulting in increased operating costs. If failed to meet customer expectations, customers may reduce their orders from OSE, resulting in reduced revenue.</p>	medium term (3-10 years)	<ul style="list-style-type: none"> <li>Every year, material suppliers of OSE are required to submit a declaration that their materials comply with REACH and do not use any conflict minerals.</li> <li>Carry out RoHS investigation or conflict mineral investigation according to customer needs and provide feedback to customers.</li> <li>If there are parts that do not meet the international standards, discuss with the customer to replace the material to meet the requirements.</li> </ul>
Technology	Demand for low-carbon products and services	<p>Currently, customers and the market have less inquiries about OSE's sustainable development status. However, major manufacturers around the world have shown their attitudes to invest in climate change issues, that OSE must understand the expectations of customers and the market. If failed to meet customer needs, customers may reduce their orders from OSE, resulting in reduced revenue.</p>	medium term (3-10 years)	<ul style="list-style-type: none"> <li>To prepare for the needs of customers and the market, production equipment must select low-energy-consuming equipment, and current production equipment with high carbon emissions must be gradually replaced.</li> <li>Maintain good communications with all relevant units in the factory. When receiving customer or market demand, we can clarify the specific demand items, provide the customer demand to relevant units in the factory, discuss the implementation plan, and jointly track the progress.</li> </ul>

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Key Climate Conference Issues and Adaptation Strategies

Climate-related conference topics		potential impact on we	Impact on the process	Adapt management strategies
Resource utilization efficiency	Energy efficiency improvements	OSE's manufacturing process mainly relies on electric energy, accounting for about 40% of total OSE annual energy consumption, and public electricity accounts for 60%. Energy-saving measures in OSE are concentrated on air-conditioning systems, air compression systems, etc., to mitigate the negative impact of operations on climate change while reducing electricity expenses, which may reduce operating costs.	medium term (3-10 years)	<ul style="list-style-type: none"> <li>Save more than 1% of electricity to improve energy usage.</li> <li>Gradually replace fluorescent lamps with LEDs.</li> <li>Replace cooling water tower heat dissipation materials to improve cooling efficiency.</li> <li>Replace the old water chillers.</li> <li>Replace with high-efficiency vacuum machines.</li> </ul>
	More sustainable buildings	Renovating old buildings can improve energy resource use efficiency and utilize water resource, also reduce greenhouse gas emissions, wastes, sewage discharge costs and operating costs.	medium term (3-10 years)	<ul style="list-style-type: none"> <li>The new factory building adopts green building design (Diamond Project).</li> </ul>
Energy source	Use low carbon energy	<p>If the dependence on non-renewable energy is reduced, we can avoid the increase in the price of non-renewable energy in the future, which may reduce operating costs.</p> <p>But meanwhile, building a renewable energy power generation system will increase OSE's operating costs.</p>	medium term (3-10 years)	<ul style="list-style-type: none"> <li>Continue to plan and build renewable energy power generation equipment.</li> </ul>
Products and services	Develop or expand low-carbon products and services	Climate change has made the purchase of energy saving, carbon reduction and sustainable products the trends. Although development costs will increase, the outcome of low-carbon technology research and development can respond to market demand, provide new solutions, launch low-carbon products to meet customer needs, and increase orders and revenue.	long (more than 10 years)	<ul style="list-style-type: none"> <li>Work with relevant units in material assessment to develop low-carbon products and reduce the carbon footprint of products.</li> <li>Through cooperation with suppliers, it has been successfully verified that low-temperature solder balls may be used in major products in the future to reduce carbon emissions by 500 tons per month.</li> <li>Invest in the development of low-carbon and energy-saving products and introduce green design thinking in the development stage to increase the energy-saving benefits.</li> </ul>

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

3.1 Environmental Responsibility and Commitment

3.2 Climate Change and GHGs Management

3.3 Water Resources Management

3.4 Waste Management

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix

3.2.2 Greenhouse Gas Management GRI 301-1 ~ 5、TC-SC-110a.1

OSE's scope 1 emissions in 2023 will be approximately 588.512 metric tons of CO<sub>2</sub>e, an increase of 158.7% compared with 2022, due to the increase in emissions from refrigerant replenishment, and the old OSE official vehicles. To improve transportation efficiency and reduce gasoline and diesel consumption, the old vehicles started to be gradually replaced in 2023. Scope 2 emissions in 2023 were 83,815.09 metric tons of CO<sub>2</sub>e. The production capacity of 2023 has been increased due to increased orders, but by the implements of energy saving plans and equipment replacement in 2023, our Scope 2 emissions has only increased slightly 1.5 % compared with 2022. The total emissions of OSE Category 1 and Category 2 are 84,403.02 metric tons of CO<sub>2</sub>e, of which Scope 2 emissions account for 99.3%. Due to the revenue growth and various energy-saving measures were taken, the emission intensity in 2023 was 5.1 tons CO<sub>2</sub>e / million NT dollars, a decrease compared with 2022.

In 2021, with the transformation of greenhouse gas inventory standards and the development of global carbon management trends, OSE started to do the Scope 3 greenhouse gas inventory for the first time, which was based on the collectability of activity data, the reliability of the data calculation method, and the frequency of activity occurrence. Based on the principle of materiality, 6 out of 15 indirect emission sources were selected for investigation, namely upstream transportation and distribution of goods, downstream transportation and distribution of goods, employee commuting, business travel, purchased goods, and disposal of solid and liquid waste.

Scope 3 emissions in 2023 were 56,411.42 metric tons of CO<sub>2</sub>e, a significant decrease of 98.0% compared with 2022. The main differences of the calculation bases across the years were (1) included Category 3 emissions from purchased water transportation; (2) excluded material returns emissions from downstream transportation and distribution of goods; (3) included fuel emissions from purchased goods; (4) included substrate's coefficients emissions generated by purchased goods; (5) added wastewater treatment resources and chemicals emissions in the inventory, at the same time excluded them from the emission calculations of the disposal of solids and liquids.

OSE attaches great importance to the management of greenhouse gases, conducts carbon inventories and sends to third parties verification every year, to improve the quality of disclosed data and respond to domestic and foreign needs. In 2023, OSE invested in 7 energy-saving and carbon-reduction projects, promoting awareness of greenhouse gas emissions and daily energy conservation within the factory, and continuing to improve OSE's carbon management capabilities.

Greenhouse Gas Emissions and Emission Intensity			
project \ years	2021	2022	2023
Category 1 (ton CO <sub>2</sub> e) <sup>Note 1</sup>	1,364.58	227.49	588.51
Category 2 (tons of CO <sub>2</sub> e) <sup>Note 2</sup>	82,740.87	82,564.42	83,815.09
Category 1 + Category 2 (tons of CO <sub>2</sub> e)	84,105.46	82,791.91	84,403.60
Emission intensity <sup>note 3</sup> (tons CO <sub>2</sub> e / million NT dollars)	5.3	5.3	5.1
Category 3 (tons CO <sub>2</sub> e)	3,806,574.23	2,753,033.48	56,411.42

Note 1:GHG emissions of 2022 are calculated based on the operational control approach. Emissions are calculated as "activity data \* emission factor \* GWP value (emission factor is based on version 6.0.4 chart of GHG emission factor management released by the Taiwan Environmental Protection Administration in 2019; GWP value is based on the IPCC 6th Assessment Report (2021)); GHGs include CO2, CH4, N2O, HFCs, PFCs, SF6, NF3.

Note 2: The data base of electricity emission coefficient was from the Taiwan Ministry of Economic Affairs' annual announcement. GHGs Inventory data in 2022 has been slightly modified after third-party verification, therefore updated the correction information in 2023 report.

Note 3: Emission intensity = (Scope 1 + Scope 2 emissions) / OSE's turnover (NT\$ million).

Note 4: In 2023, OSE Greenhouse Gas has completed the third-party external inspection in June 2024.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

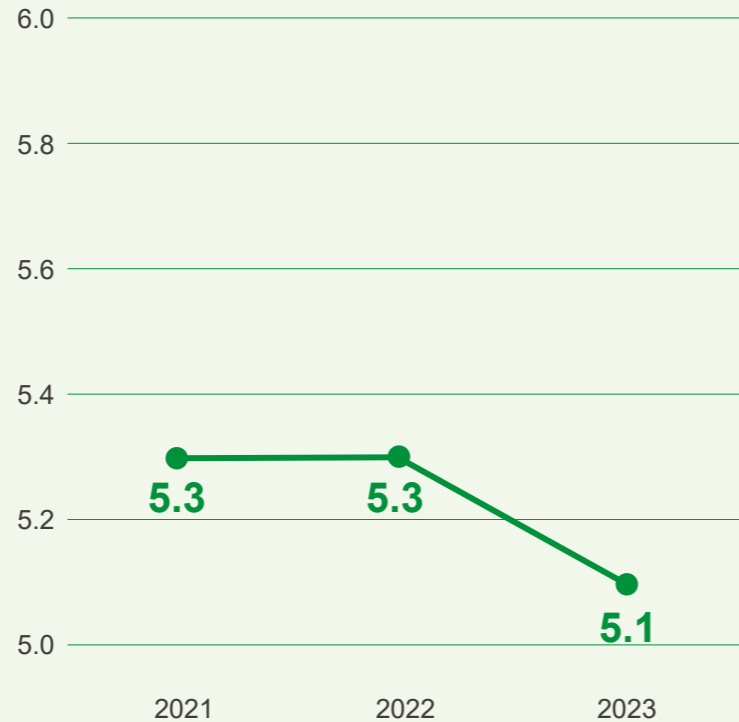
## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Scope 1 + Scope 2 Greenhouse Gas Emission Intensity

Unit: Ton CO<sub>2</sub>e / NT\$ million



## 2023 Scope 1 + Scope 2 Carbon Emissions Third-Party Verification Certificate

**DNV**

**Independent Verification Opinion**

Verification Opinion No.: C675867-2023-AG-TWN-DNV  
Issued Place: Taipei  
Issued Date: 08 July, 2024

This is to verify initiate reporting of Greenhouse Gas Inventory Report (2023) of

**ORIENT SEMICONDUCTOR ELECTRONICS, LTD.**

**Scope of Verification**  
DNV Business Assurance (DNV) has been commissioned by ORIENT SEMICONDUCTOR ELECTRONICS, LTD. ("the Organization") to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Report (2023) (hereafter the "Inventory Report") in Taiwan, R.O.C. with respect to the sites listed in Appendix A.

The Reporting Boundary for the verification including direct GHG emissions and removals, indirect GHG emissions from imported energy, indirect GHG emissions from transportation, indirect GHG emissions from products used by the Organization and indirect GHG emissions associated with the use of products from the Organization. The further descriptions for the Reporting Boundary listed in Appendix B.

**Verification Criteria and GHG Programme**  
The verification was performed on the basis of ISO 14064-1:2018 as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting. The verification was conducted in accordance with ISO 14066:2011, ISO 14065:2020, ISO14064-3:2019

**Verification Opinion**  
It is DNV's opinion that the Inventory Report (2023), which was published on June 18, 2024 (Ver. 3.0), is free from material discrepancies in accordance with the verification criteria identified as stated above. The opinion is decided based on the following approaches,  
- For the Direct (Category 1) and Indirect GHG emissions from imported energy (Category 2), the reliability of the information within the Inventory Report (2023) were verified with reasonable level of assurance.  
- For the other indirect GHG emissions, the involved information was tested and verified with a limited level of assurance.

Carina Wang  
GHG Verifier  
Place and date:  
Taipei, 08 July, 2024

For the issuing office:  
DNV Business Assurance Co., Ltd.  
28F, No. 293, Sec. 2, Wenhuo Rd.,  
220, Taiwan  
Management Representative

**DNV**

**Supplement to Verification Opinion**

Issued Place: Taipei  
Issued Date: 08 July, 2024

**Process and Methodology**  
The reviews of the Inventory Report and relevant documents, and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfillment of stated criteria.

**Quantification of Greenhouse Gas Emission**  
The Inventory Report covering the period 1 January, 2023 to 31 December, 2023, it is DNV's opinion that GHG emissions and removals identified within the Reporting Boundary has been included in the Inventory Report as claimed in accordance with the verification criteria identified as stated above, and results in quantification of GHG emissions that are real, transparent and measurable.

**Organizational Boundary of Verification**  
☒ Financial Control ☐ Operational Control ☐ Equity Share

**GHGs Verified**  
SCO<sub>2</sub>, BCO<sub>2</sub>, BNO<sub>2</sub>, BHF<sub>2</sub>, BPF<sub>2</sub>, BSF<sub>6</sub>, BNF<sub>3</sub>

**The Quantification of GHG emissions and removals in Direct and Indirect Emission Source:**

Site	Cat 1 SCO <sub>2</sub>	Cat 2 SCO <sub>2</sub>	Cat 3 SCO <sub>2</sub>	Cat 4 SCO <sub>2</sub>	Total SCO <sub>2</sub>
Orion Semiconductor Electronics, Ltd. Headquarter Building	203,5245	38,278,2816	38,571,8061		
Orion Semiconductor Electronics, Ltd. IC Factory	30,4897	3,206,9949	2,237,4846		
Orion Semiconductor Electronics, Ltd. Assembly & Testing Building	162,4186	32,364,2193	32,526,6369		
Orion Semiconductor Electronics, Ltd. East 3rd East 3rd Factory (EMS Factory)	71,3756	3,880,2622	3,951,7278		
Orion Semiconductor Electronics, Ltd. EMS Factory (East 2nd Factory)	9,8825	3,172,9556	3,182,6361		
Orion Semiconductor Electronics, Ltd. SSD Factory	21,0468	3,912,2824	3,933,3290		
Total greenhouse gas emissions and removals	588,5115	83,815,0650	84,401,3965		

\* Unless other indicated, the Indirect Emissions was calculated based on 2023 electricity emission factor of 0.494 kg CO<sub>2</sub> kWh, estimated by Energy Administration, Ministry of Economic Affairs, The Global Warming Potential (GWP) defined in IPCC AR6 (2021) has been chosen and correctly referred by the Organization.

\* The details subcategory of each category could be refer later in the Report.

**DNV**

**Verification Opinion**

Issued Place: Taipei  
Issued Date: 08 July, 2024

**Verification Opinion**  
is unmodified ☒ modified ☐ adverse

**DNV**

**Appendix A**

Appendix to Verification Opinion No. C675867-2023-AG-TWN-DNV

The greenhouse gas statements of ORIENT SEMICONDUCTOR ELECTRONICS, LTD. Greenhouse Gas Inventory Report (2023), with respect to the following table.

Site	Address
Orion Semiconductor Electronics, Ltd. Headquarter Building	No. 9, Central 3rd St., Nanxi Dist., Kaohsiung City, Taiwan
Orion Semiconductor Electronics, Ltd. IC Factory	No. 6-1, 6-1, 12, 12-1, 12-2, 12-3, 14, 14-1, 14-3, 16, 16-1, 18, 18-1, Nei Hsuan South Rd., Nanxi Dist., Kaohsiung City, Taiwan
Orion Semiconductor Electronics, Ltd. Assembly & Testing Building	Basement, No. 80 and No. 80, Jing 3rd Rd., Nanxi Dist., Kaohsiung City, Taiwan
Orion Semiconductor Electronics, Ltd. EMS Factory (EMS Factory)	No. 12, 12-1, 12-2, 12-3, 12-4, 14, 14-2, 14-3, 14-4, 16, 16-2, 18, 18-4, 18, 18-2, 18-3, 18-4, East 3rd St., Nanxi Dist., Kaohsiung City, Taiwan
Orion Semiconductor Electronics, Ltd. EMS Factory (East 2nd Factory)	No. 11, 11-2, 11-3, 11-4, 13, 13-2, 13-3, 13-4, 15, 15-2, 15-3, 15-4, 17, 17-3, 17-4, East 2nd St., Nanxi Dist., Kaohsiung City, Taiwan
Orion Semiconductor Electronics, Ltd. SSD Factory	No. 2-3, 4-3, 6-3, 8-3, 8-2, 8-3, Nei Hsuan South Rd., Nanxi Dist., Kaohsiung City, Taiwan

**Appendix B**  
The emissions and the scope of indirect emissions, other than imported energy of ORIENT SEMICONDUCTOR ELECTRONICS, LTD. Greenhouse Gas Inventory Report (2023).

Category	Sub-category	Boundary	Emissions (CO <sub>2</sub> e)
Indirect GHG emissions from transportation	Upstream transportation and distribution	- IC materials: Emissions from the transportation of the selected supplier's materials that account for the top 20 purchase amount. - EMS materials: Emissions from the transportation of the 20 selected supplier's materials that account from the top 20 purchase amount. - Others: Emissions from the transportation of total amount for water treatment auxiliary materials, client's supplies and water.	264,3600
Indirect GHG emissions from transportation	Downstream transportation and distribution	Emissions from all product shipments to customers.	15,520,4942
Indirect GHG emissions from transportation	Employee commuting	Transportation of employees travelling between company and residence district.	1,877,7374
Indirect GHG emissions from transportation	Business travel	Emissions from the public transportation (air, HSR and taxi) of employees for business-related	31,2509
Indirect GHG emissions from transportation	Purchased goods	Upstream (cradle-to-gate) emissions of selected emissions for IC, EMS and water treatment identical to the upstream transport boundary.	38,599,5425
Indirect GHG emissions from transportation	Waste generated in operations	Upstream emissions of purchased tap water, waste and electricity. Emissions from the disposal treatment and transportation of waste.	318,0632

The scope of indirect emissions, other than imported energy with quantification of emissions was defined by ORIENT SEMICONDUCTOR ELECTRONICS, LTD.'s own pre-determined criteria for significance of indirect emissions, considering the material use of the GHG boundary.



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### 3.2.3 Energy Management GRI 302-1 ~ 4、TC-SC-130a.1

#### Energy Use

In order to improve our energy management capabilities, OSE's Central 3rd Factory (HQ) and Jing 3rd Factory (AT) have passed the external verification of the ISO 50001:2018 energy management system in 2022, and plans to gradually expand the operation of the energy-saving system.

In 2023, OSE's total energy consumption was 612,175 Gigajoules (GJ), and energy sources included: purchased electricity, self-generated solar energy, diesel, and gasoline. Among them, The largest amount of OSE's electricity use was purchased electricity, accounting for 99.8% of the total energy use of OSE in 2023, and mainly consumed by the production processes and public system equipment; gasoline was mainly used by company cars, and diesel was used by company cars, stackers, generators, etc. Due to the increase of production capacity in 2023, the electricity usage has increased by 1.83% compared with 2022, but with the increase in revenue and the decrease in gasoline and diesel consumption, the total energy intensity has decreased compared with 2022.

In response to the trend of energy transformation, the importance of renewable energy use has attracted globally attention. To build the resilience for long-term climate change, OSE plans to install solar power generation equipment. From 2023, the consumption of self-generating solar power was account for 1% of the total electricity consumption, and the proportion of renewable energy use is expected to gradually expand in the future.

Project	Unit <sup>note 1</sup>	2021	2022	2023
Purchased electricity	Spend	164,822,459.00	166,796,800.00	169,666,164
	GJ	593,360.85	600,468.48	610,798.19
Gasoline	liter	6,610.26	3,725.55	2,781.85
	GJ	215.88	121.67	90.69
Diesel fuel	liter	50,906.53	26,907.95	18,577.77
	GJ	1,790.42	946.37	653.39
Self-generating solar energy	Spend	-	-	175,776.30
	GJ	-	-	632.79
Total energy consumption	GJ	595,502.31	601,997.37	612,175.06
Energy Intensity <sup>Note 2</sup>	GJ / NT\$ million	37.34	38.73	36.68

Note 1: Source of heating value unit: Chart of Heat Content of Energy Products, Bureau of Energy, Ministry of Economic Affairs.

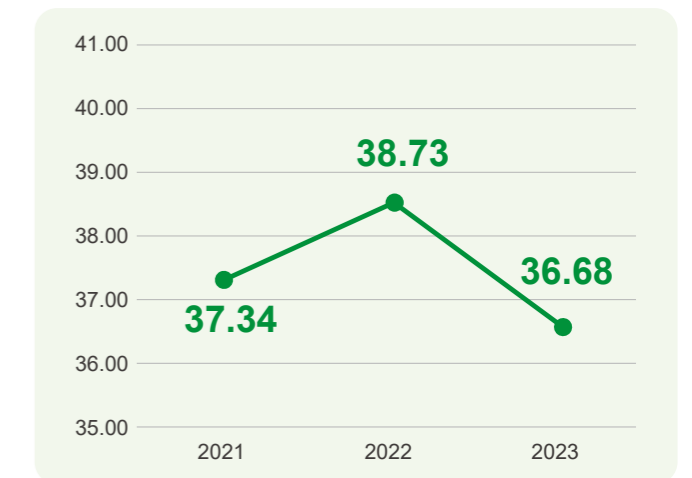
Note 2: Energy intensity = total energy consumption (GJ) / OSE's turnover (NT\$ million).



ISO 50001:2018 Energy Management System Certificate

#### Ose Energy Intensity

Unit: GJ/NTD\$ million



Note: Energy intensity calculation is based on usage data of all types of energy used internally by OSE, including electricity, gasoline, and diesel.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability
 

3.1 Environmental Responsibility and Commitment

3.2 Climate Change and GHGs Management

3.3 Water Resources Management

3.4 Waste Management

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix

### 3.2.4 Volume Reduction Actions and Results GRI 302-4、305-5

OSE pays attention to the impact of climate change on corporate operations and sets greenhouse gas reduction targets with 2021 as the base year. To reduce the impact of operating activities on the environment, OSE actively promotes environmental actions in the factory and has implemented energy-saving and carbon-reduction plans step by step since 2020, including reducing the number of operating hours of overcapacity public equipment, replacing old equipment, replacing with LED lighting, etc., and improve the environment and energy management system to improve efficiency.

In 2023, OSE promoted 7 energy-saving and carbon-reduction plans, invested approximately NT\$32,260,000, and was estimated to reduce electricity consumption by approximately 3.95 million kilowatt hours, which was equivalent to a reduction of approximately 1,956 tons of CO<sub>2</sub>e based on the electricity coefficient announced by the Ministry of Economic Affairs in 2023.



Plan Category	Year Of Program Implementation	Energy Saving Action Plan Description	Annual Energy Saving Performance <sup>note</sup> (kWh)	Carbon Reduction Amount (tons CO <sub>2</sub> e)
Lighting system	2023	Replaced fluorescent lamps with LED lightening(Phase 7)	13,464	7
	2023	Replaced fluorescent lamps with LED lightening (Phase 8)	67,320	33
	2023	Replaced 300 sets of LED T-BAR lamps	104,400	52
Ice water host system	2023	Replaced cooling tower's heat sink material	181,248	90
	2023	Replaced water chillers	3,006,720	1,488
Vacuum system	2023	Replaced with a high-efficiency vacuum machine	194,800	96
	2023	Replaced with a high-efficiency vacuum machine	382,800	189
total			3,950,752	1,956

Note: Energy saving performance was estimated based on equipment specifications and operating hours.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## 3.3 Water Resources Management

GRI 2-23 、 2-24 、 2-25 、 3-3 、 303-1~5 、 TC-SC-140a.1

### Major Theme Management Policy

Impact	Through the improvement of water resources management and efficiency, we may cope with water supply interruptions such as water supply limitations or water outages, which may affect the production activities, then enhance OSE's competitiveness.	
Management mechanism	Policy	OSE's water policy is to strive for the reduction, recycling, and reuse of water and promote high-efficiency Water Resources Management, aiming to effectively reduce our water consumption.
	Promise	Improve water utilization, reduce water extraction and drainage volume year by year, and increase water reuse volume. Strengthen the management of discharged water to ensure that the quality of discharged water is better than the standard.
	Responsibility	Facility Department, Risk Management Department
	Resource	Regularly understand new recycling technologies and solutions with relevant companies. Learn about water-saving measures and equipment from peers.
	Compliant mechanism	Contact us through email, phone calls, meetings, suggestion boxes, etc. Internal compliant email: 580@ose.com.tw Internal compliant hotline: 07-3613131 ext. 68885 External compliant email: csr@ose.com.tw External compliant hotline: 07-3613131 ext. 68558

### Major Theme Management Policy

				2023 goals	2023 performance	2024 goals
Implement	Goals and objectives	Water resources management	Water intake density (water intake/million revenue) decreased compared with the base year	5.5%	12.2%	11.1%
			Wastewater volume decreased compared with the base year	25%	15.7%	27%
			Wastewater recovery rate (process recycled water volume / (tap water consumption + process recycled water volume))	30%	28.7%	32%
		Prevention and technology development	The main indicators of water pollution are better than the management standards	46%	82.5%	60%
	Specific action	ISO 46001 Water Resources Efficiency Management System Set up the second stage wastewater recycling system in Central 3rd Factory (HQ) and underwent third stage evaluation. Evaluate process wastewater recovery and effluent water recovery plans by Jing 3rd Factory (AT) Strengthen independent management of discharged water.				
	Effectiveness Evaluation	Conduct monthly review and performance tracking, quarterly ESG Committee meetings and Occupational Safety, Health, Energy and Water Resources Management Committee meetings to review the implementation status of each environmental, safety, health, energy, and water plans.  Water resources management meeting was held once a year regularly to review the operational performance of the water resources management system to achieve sustainable development goals.				

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability
 

3.1 Environmental Responsibility and Commitment

3.2 Climate Change and GHGs Management

3.3 Water Resources Management

3.4 Waste Management

4. Supply Chain and Product Management

5. Sustainable Talent Management

6. Inclusive Community

Appendix

3.3.1 Efficient Management of Water Resources

As extreme conditions such as floods and water shortages occur more frequently due to climate change, the possibility of water resources risks increase. Therefore, OSE's stakeholders are paying more and more attention to water resources issues, demonstrating the importance of water resources management. In response to the increasingly severe water conditions, OSE introduced the ISO 46001:2019 water resource management system in 2022 and passed third-party verification, to systematically identify water consumption and formulate policies, goals, and measures to improve water resource use efficiency. Water resources of OSE also are expanded through multiple channels such as recovery, regeneration, and reuse, and we are dedicated to improving the recovery rate of process wastewater, recovery rate of continuous wall seepage water, and utilization rate of recycled water in the factory.



ISO 46001:2019 Water Resources Efficiency Management System Certificate

3.3.2 Water Resource's Structure and Stress Area

OSE's water sources are tap water from Fengshan Reservoir and Nanhua Reservoir, as well as seepage water from the continuous wall in the factory. In 2023, OSE's total water intake was 1,437.90 million liters, of which the total water seepage through continuous walls was 40.56 million liters. The water used in OSE's production is mainly used for wafer grinding, cutting, molding, cleaning, and domestic water in the process. The total water withdrawal in 2023 increased by 19.9% compared to 2022. Although the second stage of wastewater recycling system has been constructed in the Central 3rd Factory (HQ), the increase in production capacity led to an increase in tap water withdrawal. We will continue to plan water conservation and water recycling measures, address the importance of water conservation to the factory, and actively manage and improve.

Reveal project		Unit	2021	2022	2023
Water intake	Third-party water (tap water)	million liters	1,497.09	1,159.45	1,390.14
	Others (continuous wall seepage water)		44.04	40.18	40.56
	Others (water tank truck)		18.06	0	7.2
	Total water intake		1,559.19	1,199.63	1,437.90
Drainage			1,254.29	862.97	1,057.63
Water consumption			304.90	336.66	380.27

Note 1: Water intake is all from fresh water (≤ 1,000mg/L Total dissolved solids). Tap water data is calculated based on the annual water bill; diaphragm wall drainage data is based on meter readings.

Note 2: Drainage is incorporated into government management based on facility location then discharged after being processed by sewage treatment plant.

Note 3: The amount of "Drainage Discharge" is wastewater operating data; wastewater discharge category belongs to "Other" (> 1,000mg/L Total dissolved solids), and wastewater is not used by other organizations.

The uneven rainfall intensity and distribution in Taiwan can easily cause regional and seasonal water shortages. To avoid the impact of water shortage risks on production activities, OSE uses the Aqueduct Water Risk Atlas of World Resources Institute (WRI) to conduct water risk assessments for our factories, to understand whether our factories are in the water-stressed area to develop response strategies. OSE 's factories are mainly in Nanzi Science and Technology Industrial Park, Kaohsiung City, and the overall water risk classification in the WRI Aqueduct Water Risk Atlas was medium to low risk in 2023.



Note: Results of water resource risk assessment based on WRI Aqueduct Water Risk Atlas (query date: 2024.03)

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### 3.3.3 Water Pollution Prevention and Control

OSE waste (sewage) water is discharged to the Kaohsiung Nanzi Science and Technology Industrial Park Management Office Water Pumping Station. To maintain the function of the sewage sewer system in the area, the quality of the waste (sewage) water discharged by users must meet the government's requirements and standards. The applicated standards of discharge water of the surface water body were published in the "Water Pollution Prevention and Control Measures Plan and Water Pollution Prevention and Control Permit" by the sewage sewer system pumping station of Kaohsiung Nanzi Science and Technology Industrial Park. In 2023, the water quality of OSE's water discharge met all discharge standards of the industrial park.

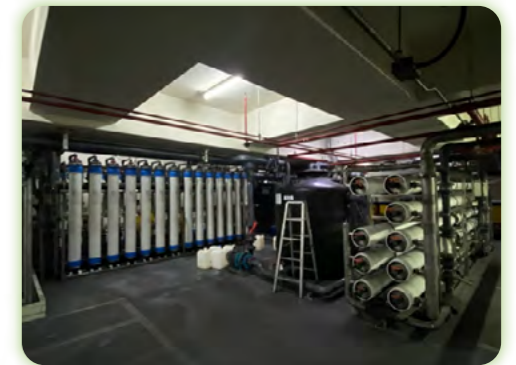
Water quality project	2021	2022	2023	Management standards
COD (mg/L)	23.7	27	14	<80
SS (mg/L)	5.7	7.3	7.2	<25
Hydrogen ion concentration	8.5	7.9	8.1	6~9
Copper(mg/L)	0.173	0.154	0.362	<1.5

### 3.3.4 Water Recycling and Reuse

OSE actively promotes the increase of water resources, the reduction of expenditure, and the improvement of the efficiency of water resource utilization. To reduce water consumption in each process, we gradually build wastewater recycling systems and continuous wall water drainage systems for reuse. OSE has invested in several water-saving solutions and was recognized as an outstanding company of the water-saving improvement award by the Taiwan Water Resources Department of the Ministry of Economic Affairs in 2022. In 2023, continued to review the implementation of the factory in accordance with ISO 46001:2019 standards, improved and expanded water-saving measures, and optimized the water efficiency and water resources management of the factory.

Years	Water saving measures	Plan description	Water conservation <sup>note</sup> (million liters/year)
(million liters/year)	Wastewater recycling	Integrated the 2F and 5F drainage pipes in Central 3rd Factory (HQ), expanded the second stage wastewater recycling equipment, and reused recycled water for the manufacturing process.	24.4

Note: The amount of water saved was estimated based on the average daily recovery volume.



The second stage of wastewater recycling and reuse equipment in OSE Central 3rd Factory (HQ)

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

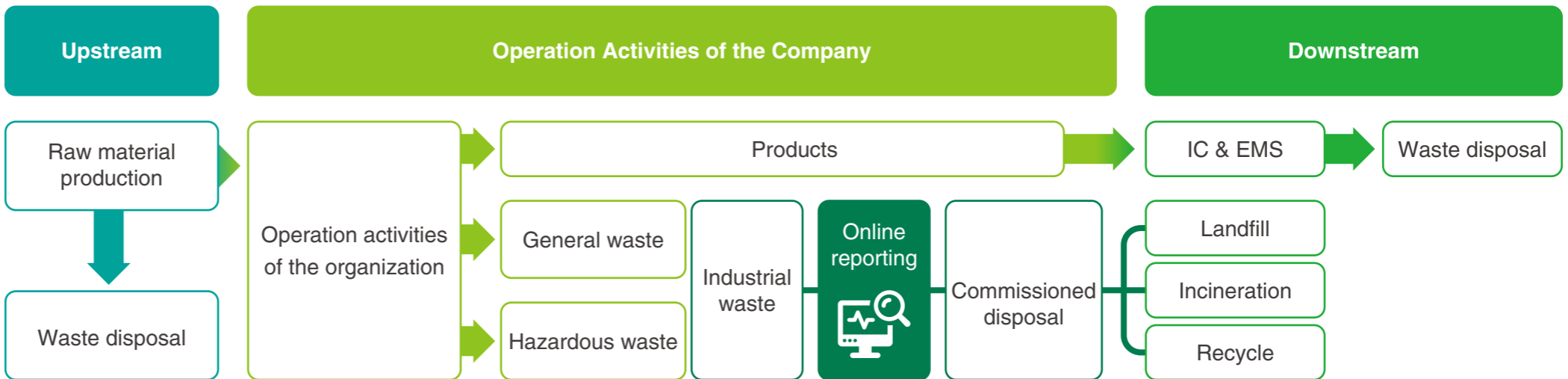
## Appendix

# 3.4 Waste Management GRI 306-1~5、TC-SC-150a.1

## 3.4.1 Waste Impact Management

OSE adheres to the spirit of responsible production and circular economy and is committed to reducing the impact of products on the environment at all stages of the life cycle from raw materials, manufacturing, storage, transportation, use to disposal. We have established internal waste management procedures. According to the procedures, after each department generates waste, it should submit cleanup requirements to the Risk Management Department, evaluate whether the business waste cleanup plan needs to be changed or not, place the waste in temporary storage areas according to their categories and entrust, and then the qualified contractors will come to handle or recycle them.

OSE promotes process technology improvement and source management in our processes. Also, we are committed to reducing the use of raw materials and waste output. We will continue to cooperate with partners and supply chains to conduct waste manufacturer audits and provide guidance, to strengthen waste recovery and recycling, and prevent the occurrence of pollution.



OSE's waste reduction goal is to make the general waste recycling rate greater than 36.5% in 2023 and reach 38.5% in 2030. In 2023, OSE's total waste disposal volume totaled 2,534 metric tons, an increase of 2% from 2022 due to the increase in production activities. Waste of OSE is divided into general (non-hazardous) waste and hazardous waste. General waste includes general garbage, general sludge, dump, excreta, and waste rubber strips, etc., accounting for about 95% of the total waste in 2023; Hazardous industrial waste mainly includes mixed hardware waste and waste hazardous sludge, accounting for about 5% of the total in 2023. In summary, OSE's general waste recycling rate in 2023 was 39.2%; the hazardous waste recycling rate was 4.8%.

OSE handles waste in accordance with Taiwan's "Waste Disposal Act" and internal procedures, and we entrust external qualified waste disposal companies to remove and transport it. OSE signs an annual contract with qualified cleaners to confirm management measures and process, and the cleaners will clean up regularly according to OSE's waste output status. OSE visits waste removal companies at least once a year to understand their management and operation of the entrusted waste storage, removal, processing, and reuse, and keeps records to the status and verifies.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

### 3.1 Environmental Responsibility and Commitment

### 3.2 Climate Change and GHGs Management

### 3.3 Water Resources Management

### 3.4 Waste Management

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

Waste Type	Details	Processing Method	Amount of Waste Processed (tons)		
			2021	2022	2023
General Waste	General garbage(D-0299)	Incineration (non-energy recovery)	754.4	689.4	581.3
	Waste tape (D-0299-0208)	Incineration (non-energy recovery)	213.9	153.9	127.9
	Waste chemicals (D-2399)	Incineration (non-energy recovery)	2.6	0	0.3
	Waste wipes (D-0899)	Incineration (non-energy recovery)	0.1	0	0
	Waste electroplating filter element (D-0299)	Incineration (non-energy recovery)	1.2	1.2	0.9
	General sludge (D-0902)	Heat treatment	526.6	353.9	434.2
	Waste lubricating oil (D-1703)	Heat treatment	0	0	0
	Waste glass(D-0499)	Physical handling	0	0	0
	Plastic can (D-1999)	Physical handling	0.7	0.6	0.8
	Dump and excreta (D-0104)	Off-site waste (sewage) water treatment	335.4	282.9	309.0
	Waste which is announced that should be recycled or reused (Category R)	Recycle	976.8	780.2	896.6
	Food waste (R-0106)	Announcement for reuse	60.6	55.0	43.4
	Empty plastic waste barrel (D-2399)	Washing treatment	1.5	0.3	1.9
	Hazardous Waste	Waste plastic empty barrel (c-0301.c-0201.c-0202)	Washing treatment	8.3	6.2
Waste alkali (C-0201)		Chemical treatment	0.5	0	0
Waste acid (C-0202)		Chemical treatment	1.1	0	0.3
Waste solvent/ink (C-0301)		Incineration (non-energy recovery)	8.0	0	6.7
Scrap mixed hardware (E-0217)		Physical handling	41.5	87.1	80.6
Circuit board scrap (E-0221)		Physical handling	58.0	54.7	38.4
Waste hazardous sludge (A-8801)		Recycle	35.3	26.0	6.6
General Waste Disposal Volume			2,873.8	2,317.4	2,396.3
Hazardous Waste Disposal Volume			152.7	174.0	137.3
Total Waste Disposal			3,026.5	2,491.4	2,533.6

Note 1: All waste was disposed of by qualified cleaning companies.

Note 2: The waste data was obtained through the contract signed with the outsourcer or the waste declaration information to government.

Note 2: Because of the change of categories, the data of 2021 and 2020 has been updated.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

3.1 Environmental Responsibility and Commitment

3.2 Climate Change and GHGs Management

3.3 Water Resources Management

3.4 Waste Management

4. Supply Chain and Product Management

5. Sustainable Talent Management

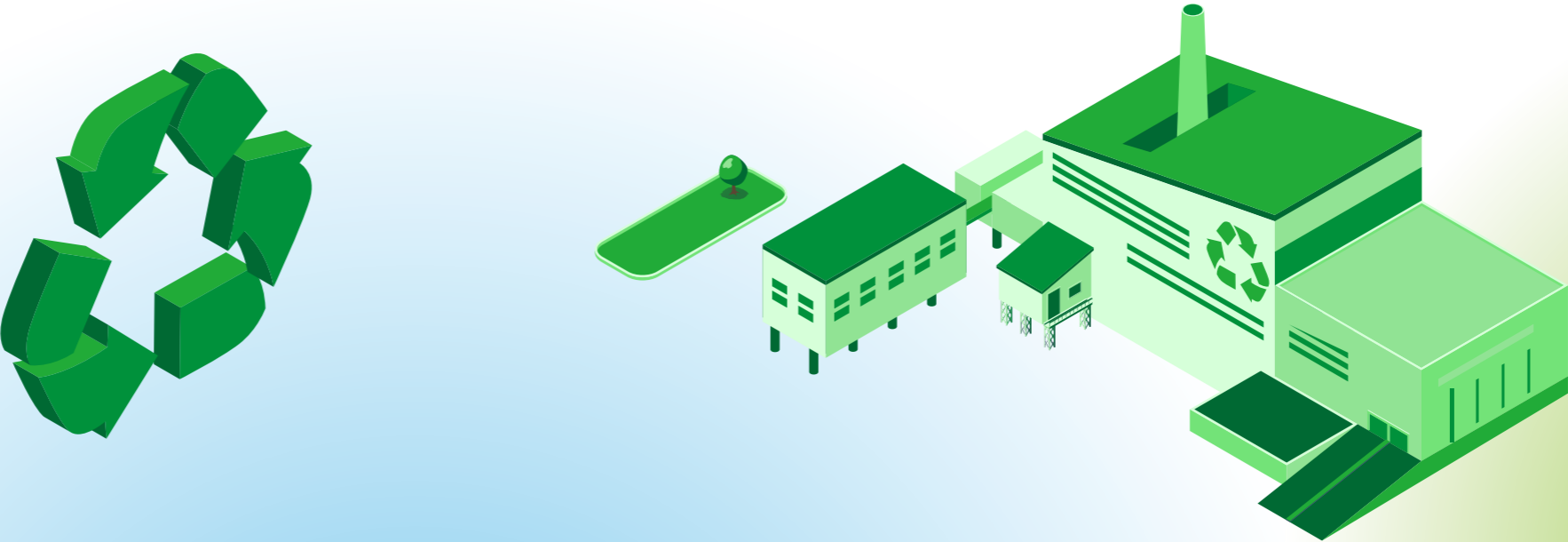
6. Inclusive Community

Appendix

3.4.2 Waste Reduction Measures

OSE will reduce pollution and emissions from the source through process design, technology improvement and material reuse. In the future, we plan to evaluate the reuse method of waste rubber strips (code: D-0299), with the purpose of using them as renewable energy (code change: R-0201) to reduce combustion emissions from power generation. We will continue to research and entrust waste reuse methods to increase the recycling rate.

Reduction Items	Implement Measures
Waste Management	Continue to promote source classification and waste reduction and use source management measures such as improved process technology, machine optimization, and raw material reduction to effectively improve the reduction of waste.
	Waste of OSE is carried out in accordance with regulations and a resource recovery mechanism is implemented
	Educate all employees to implement waste reduction
Waste Reuse	Continue to look for ways to reuse and entrust processing companies to increase recycling rates



## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

# Supply Chain and Product Management

## 4.1 Sustainable Supply Chain

## 4.2 Customer Relationship Management

## 4.3 Product Quality and Safety

## 4.4 Innovation Research and Development

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

4.1 Sustainable Supply Chain

4.2 Customer Relationship Management

4.3 Product Quality and Safety

4.4 Innovation Research and Development

5. Sustainable Talent Management

6. Inclusive Community

Appendix

Sustainable Performance and Corresponding SDG

Implement the United Nations Sustainable Development Goals	SDGs Specific Goals	2023 Years Sustainable Performance
SDG 12	Sustainable consumption and production model	<ul style="list-style-type: none"> <li>The OSE IC Center's local procurement ratio accounted for approximately 46% of that year's procurement, and the EMS center accounted for approximately 80%.</li> <li>Received the 2023 Kaohsiung City Government Environmental Protection Bureau's certificate of appreciation for green procurement outstanding vendors.</li> <li>Completed ISO 9001: 2015 quality management system, IATF 16949: 2016 automotive quality management system, ISO 13485: 2016 medical devices quality management system standard, AS 9100: 2016 aerospace quality management system.</li> </ul>

# 4.1 Sustainable Supply Chain

GRI 204-1、308-1、308-2、414-1、414-2

Procurement should not only consider the impact on production, services, and operations, but also should weigh the company's social responsibility and reputational risks. OSE followed laws and regulations, took relevant standards and obligations as the basis of our supply chain management. We joined important ESG goals like labor rights, environmental protection, occupational health, and safety into our control points of supplier risk management to identify high-risk suppliers. Based on the evaluation results, we would provide suppliers with improvement measures to help them better their managements, reduce risks for both sides and establish a sustainable partnership.



## 4.1.1 Sustainable Supply Chain Management

### Supplier Sustainability Management Standards

Supply chain management has become one of the keys to sustainable business operations. As a company that engaged in international business, in addition to strengthening our competitiveness in product quality and project management, we also were committed to building a more sustainable supply chain. Using the contents of RBA (Responsible Business Alliance) like "Self-Assessment Questionnaire", "Validated Assessment Program", programs of suppliers' capability enhancement as well as other methods, we built a complete supply chain management system and work with suppliers to move forward to a sustainable future.

OSE has paid great attention to fulfilling our social, environmental, ethical, business managerial and other responsibilities. In accordance with the requirements of RBA, the contents of important international initiatives including the United Nations Global Compact and the Universal Declaration of Human Rights, and SA 8000 management systems, we established a supplier Code of Conduct regarding human rights, work conditions, environment, and anti-corruption.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

4.1 Sustainable Supply Chain

4.2 Customer Relationship Management

4.3 Product Quality and Safety

4.4 Innovation Research and Development

5. Sustainable Talent Management

6. Inclusive Community

Appendix

All activities of OSE suppliers should fully comply with the requirements of supplier Code of Conduct and follow the laws and regulations of the countries where their business locations were. Also, the principle of management would apply to suppliers and their subsidiaries, affiliated companies, and contractors who provided OSE products or services. Before signing contracts with suppliers and contractors, OSE would fully explain the requirements of works, specifications, schedule, occupational health and safety, and other important items, so that they could fully understand how to cooperate and possible risks. When signing a contract, the amount, payment terms, responsibilities, rights and obligations, penalties, etc. of both sides would be clearly stated in the contract as the basis for both sides to perform. All suppliers (including new ones) should confirm their compliance with environmental and social regulations in our investigation and had the obligations to provide product quality test reports, data, letters of guarantee for non-use of hazardous substances, ICP reports and other required information.

OSE Supplier Code of Conduct:



### 4.1.2 Conflict Minerals Management TC-SC-440a.1

Conflict minerals meant mining in situations of armed conflict and human rights violations, and were precious metal minerals mined in the countries like Democratic Republic of the Congo and its adjoining countries, Uganda, Rwanda, and other conflict area, including gold (Au), tin (Sn), Tantalum (Ta), Tungsten (Wu), etc. Those materials were commonly used in manufacturing electronic components. As a global citizen, OSE promised not to use minerals from unqualified smelters in conflict mining areas and added conflict minerals education into our supplier management.

#### Conflict Minerals Management Policy

- We are committed to boycotting minerals sourced from unqualified smelters in the Democratic Republic of Congo and its surrounding countries and regions, and to comply with regional and international regulations on conflict minerals.
- We trace the responsible mineral sources in all our products, including gold (Au), tantalum (Ta), tin (Sn), tungsten (W), cobalt (Co), mica, or other responsible minerals as announced by the Responsible Minerals Initiative (RMI). All suppliers are required to sign a declaration stating that they do not use conflict minerals and confirm that the relevant raw material sources adhere to the RMI's list of qualified smelters/refiners, to avoid direct or indirect support for armed conflict or human rights abuses in mining areas.
- Suppliers are expected to impose the same conflict minerals management requirements on their upstream suppliers.

### 4.1.3 Local Procurement

OSE's manufacturing units could mainly divide into Semiconductor Centers (IC center) and Electronic Manufacturing Service Center (EMS center). The main products of the IC center were integrated circuit (IC) component packaging and testing services, which were used in computers, communication devices, networks, consumer electronics, telecommunications, and industrial controls. The EMS center mainly provided professional electronic manufacturing services and accepts customer commissions to manufacture products like servers, SIP modules, instruments, storage systems, electronics for oil exploration and satellite building. Therefore, we had a diverse range of suppliers, with raw materials including printed circuit boards, connectors, gold wires, plastic cakes, nail frames, substrates, etc.

OSE attached great importance to the implementation of corporate social responsibilities and continues to promote the strategy of localized procurement to reduce the transportation distance of raw materials and create common economic benefits. In 2023, we had 1,152 suppliers in total. The local purchase percentage of the IC center was 46.33%, like 2022; while the EMS center increased to the rate of 80.60%, higher than the previous year, due to the increase in orders from Taiwan customers.

From all 1,152 suppliers, we identified "key suppliers" for strategic management, and the principles of filtration included restrictions on availability and distribution, price change risks, regulatory risks, reputation risks and other factors. As of the end of 2023, OSE had identified a total of 61 key suppliers, including main raw materials such as PCB, IC, Substrate, Lead frame, Wire, DAF/Epoxy, Compound, Tray, Tape, Blade, Capillary, and Capacitor, etc. OSE regarded key suppliers as our important partners and maintained close contact to further develop products and partnership.

#### Proportion of Local Procurement by Suppliers

Center	Local Purchase Percentage <sup>note</sup>		
	2021	2022	2023
Semiconductor	47.46%	46.64%	46.33%
Electronics Manufacturing Services	83.01%	75.31%	80.60%

Note : OSE's important operating bases all in Taiwan, so local procurement is defined as the proportion of suppliers in Taiwan.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

### 4.1 Sustainable Supply Chain

### 4.2 Customer Relationship Management

### 4.3 Product Quality and Safety

### 4.4 Innovation Research and Development

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### Supplier Geographical Distribution

Main raw material details	Supply area
A printed circuit board	Mainland China, Taiwan, United States
Connector	Chinese mainland
Au wire	South Korea
Compound	Mainland China, Japan, Taiwan
Leadframe	Taiwan
Substrate	Mainland China, Taiwan

### Number of Suppliers and Purchase Amount

Unit: Number /NT\$1,000

Supplier type	Number in 2022	Purchase amount in 2022	Number in 2023	Purchase amount in 2023
key suppliers	61	3,530,356	61	5,046,014
Other suppliers	1,022	2,323,869	1,091	2,151,393
total	1,083	5,854,226	1,152	7,197,407

### 4.1.4 New Supplier Management

#### Documents for New Suppliers

Supplier basic information	RBA Pledge
Test report, safety data sheet and ICP report	Declaration of non-use of hazardous substances
Declaration of non-use of conflict minerals	Declaration of Conformity for Honest and Code of Conduct

### New Supplier Management Protocols



- Review the supplier's attached documents: Conduct a document review for qualification of new suppliers. Based on the "Supplier Basic Information Sheet", six aspects of a new supplier will be evaluated comprehensively: quality certification, quality level, price level, delivery time level, technical level, and service level. Acquisition of certifications such as ISO 9001, ISO 14001, IATF 16949, IECQ QC 080000 and ISO 45001 certifications, etc. will also be strongly used as supplier scoring references.
- Supplier on-site visits and audits: OSE procurement department along with quality department and other relevant units jointly form a "Supplier Evaluation Team" to conduct on-site inspections. The supplier must commit to and comply with OSE's policies of no harmful substances, corporate social responsibility, human rights, and integrity management.
- Qualified suppliers: Before becoming a qualified supplier of OSE, the applicator need to conduct a questionnaire survey to confirm the company's basic information, quality, compliance with environmental protection, safety regulations and other terms, and only after getting the countersignature and approval of the relevant units can it become OSE's supplier. In addition, important material suppliers also need to conduct evaluations based on special specifications to ensure that their management systems and products can meet OSE's needs.

## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

#### 4.1 Sustainable Supply Chain

#### 4.2 Customer Relationship Management

#### 4.3 Product Quality and Safety

#### 4.4 Innovation Research and Development

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix

- OSE follows supplier management standards, upholds the spirit of honesty, openness, and fairness, and develops long-term cooperative partnerships with suppliers. Supplier management methods include the evaluation, selection, and monitoring. In addition to price, quality and delivery time, suppliers' risk managements is also included to ensure the suppliers meets sustainability requirements.

In 2023, a total of 60 new OSE suppliers signed the "signed the "Declaration of Conformity for Honest and Code of Conduct," "Declaration for Non-use of Conflict Minerals," and "RBA Pledge," demonstrating our suppliers have attached great importance to promoting issues such as environmental protection, occupational safety, labor human rights and integrity management. In addition to maintain the commitment letters signing rate of suppliers, OSE has also carried out audit and supplier coaching projects to help suppliers build sustainability awareness and jointly build a more resilient supply chain.

#### 4.1.5 Qualified Supplier Audit Mechanism

OSE was committed to improving the sustainability of the supply chain and conducts on-site inspections of suppliers from time to time every year to confirm suppliers' compliances with OSE's standards. For suppliers with poor management system, OSE supplier evaluation team would be responsible for coaching and tracking their improvement. If they still couldn't meet the requirements, cooperations would be stopped until they improve. By the measures we adopted, we hoped to establish a solid mechanism for audit and sustainable management.

In accordance with RBA regulations and relevant international standards, we established own internal assessment procedures. In 2023, we conducted IC center supplier on-site audit for 10 suppliers; and EMS center for 10 suppliers as well. The deficiencies we found in the on-site inspection were mainly due to the failure of not providing documents of new operating procedures, incomplete records, and unclear definition of control systems. After audit, suppliers were asked to make improvements within the deadline. In 2023, 100% of all audit supplies responded, and no supplier has been terminated the partnership due to the failure of compliance with OSE's regulations.

As to supplier assessment, we evaluated not only by the means of auditing, but also by coaching suppliers to improve thier risk management capabilities, to build a more sustainable supply chain. In 2023, after the evaluation of suppliers, 33 excellent IC center suppliers were selected; meanwhile there were 28 excellent suppliers selected in EMS center.

OSE continued to promote sustainable procurement policies and best practices to our suppliers. If they were unable to cooperate with OSE's sustainability and business policy, OSE would consider whether to maintain the partnership in the future. Also, to mitigate the risk of price and supply chain, OSE established strategies and took measures such as increasing our suppliers' diversification, storing materials, procuring, and developing alternative materials. For the critical materials which had multi sources, we would search for an alternative supplier, to avoid nature disaster, environmental issues, social problems, or other irresistible factors making supply chain broken, to maintain OSE's production and market competitiveness.

#### OSE Supplier Assessment

1

Quality system

2

Document control

3

Supplier management

4

Inspection and testing

5

Quality record

6

Check

7

Control of defective products

8

Process control



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

### 4.1 Sustainable Supply Chain

#### 4.2 Customer Relationship Management

#### 4.3 Product Quality and Safety

#### 4.4 Innovation Research and Development

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### Supplier Assessment Score Level Description

Average rating (%)	Hazard-free management (%)	New supplier
>80%	>=85%	Listed as a qualified supplier and available for trading
80%~70%	>=85%	Only if the conditions are met and the improvements are made, they will be included in the qualified tradable list.
<70%	<85%	Unqualified

New supplier audit: all improvement measures must be completed before re-auditing (If failing our verification more than 3 times, the supplier will not be allowed to apply again.)

Average rating (%)	Hazard-free management (%)	Annual supplier audit
<80%	<85%	Unqualified

Annual supplier audit: If the supplier fails more than 3 times, the supplier must be removed from the qualified list



### 4.1.6 Sustainable Supply Chain Management Performance in 2023

#### Annual Supplier Conference

To strengthen suppliers' awareness of sustainability and convey OSE's quality and sustainability requirements to suppliers, we held a supplier conference every year to promote excellent suppliers for their cooperation and sustainability services. OSE has developed a supplier reward mechanism based on the industrial requirements of different suppliers. Based on the scores on the aspects of quality, cost, delivery, service, technical, suppliers with excellent performances or other outstanding achievements would be selected as an outstanding supplier. In 2023, a total of 61 outstanding suppliers for the year were selected. Supervisors among those outstanding suppliers were invited by OSE to attend the supplier conference, where awards and recognition were given publicly.



#### Awarded as an Outstanding Green Procurement Manufacturer

In response to the theme of 2023 Earth Day "Invest in Our Planet", the Environmental Protection Bureau of Kaohsiung City held the "Environmental Hero , Carbon Zero" event on April 22 to thank and to award the prize of total 51 outstanding green procurement companies and 12 outstanding green stores as green purchasing.

OSE regarded a sustainable supply chain as an important part of achieving ESG and works closely with our suppliers to continue green procurement, and the green procurement amount has reached more than NT\$3 million in 2022, and was the second consecutive year for OSE to be awarded the honor of green purchasing. This year, Jennifer Hsieh, AVP of Procurement Division represented OSE for the great event, this was also an encouragement to all our employees on their efforts of green activities.



Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

4.1 Sustainable Supply Chain

4.2 Customer Relationship Management

4.3 Product Quality and Safety

4.4 Innovation Research and Development

5. Sustainable Talent Management

6. Inclusive Community

Appendix

4.2 Customer Relationship Management GRI 2-23 、 2-24 、 2-25 、 418-1

Major Theme Management Policy

Impact	Positive: OSE pays attention to promoting product quality, strengthening internal training, and providing good customer service, to improve customer satisfaction, enhance OSE's reputation and customer relationships. We also use information confidentiality contracts and internal control measures to avoid leakage of customer private information to earn customer's trust. Negative: Failure to grasp customer demand, making customers reduce orders from OSE, resulting in reduced revenue.	
Management Mechanism	Policy	We pursue long-term cooperative relationships with our customers. We not only provide customers with high-quality products and services, but also care about customer demand changes and market dynamics. We regard customers as our important partners and are dedicated to maintaining good communication and mutual trust with customers.
	Promise	OSE adheres to the core spirit of "integrity, innovation, proactiveness, empathy", and abides by business ethics and contract terms, and makes no concealment or deception. We also continuously improve and innovate our products and services, provide the best solutions and support to meet customer expectations, baring risks and sharing benefits with our customers.
	Responsibility	Business center and related units
	Resource	OSE continues to provide high-quality customer service and conducts satisfaction surveys for major customers. The findings will be compiled into a report and presented at the management review meeting.
	Grievance Mechanism	OSE attaches great importance to customers' opinions and feedback as the basis for our improvement. We collect suggestions from target customers on our performance in various aspects through questionnaires or interviews. Contact number: 07-3613131 ext.68900 E-mail: info@ose.com.tw
Implement	Goals and Objectives	Our tasks: 1. Meet customer needs, 2. Improve customer satisfactory. The annual satisfaction survey of target customers includes 6 major aspects: quality, delivery, material management, responsiveness, production capacity flexibility, new product introduction and manufacturing technology. The goal is to obtain feedback of more than 4 points out of 5 in each aspect. FMC: Top 10 Customers LIC: Top 10 customers EMS: Top 12 customers
	Specific Action	1. The business center establishes a smooth and real-time interaction channel with manufacturing units to provide high-quality and timely customer service. 2. Customer complaints will be filed and handled by the quality assurance unit and feedback will be provided through PDCA methods to avoid the recurrence of the same problem. 3. OSE follows domestic and foreign quality standards and initiatives, and requires suppliers to submit the declaration that their materials comply with domestic and foreign standards and initiatives: <ul style="list-style-type: none"> <li>Carry out investigations on ROHS material, conflict minerals and other substances according to our customer needs, and feedback the result to customers</li> <li>If the specified material is confirmed to be potentially inconsistent with domestic and foreign standards or initiatives, we will provide replacement suggestion to the customer.</li> </ul>
	Effectiveness Evaluation	1. Through regular and irregular meetings, the business continues to review customer-related indicators, and the execution status is smooth. 2. In 2023, the satisfaction scores of OSE's target customers in the 6 major areas were over average 4 points, higher than the standard (5 points in total).

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

### 4.1 Sustainable Supply Chain

### 4.2 Customer Relationship Management

### 4.3 Product Quality and Safety

### 4.4 Innovation Research and Development

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

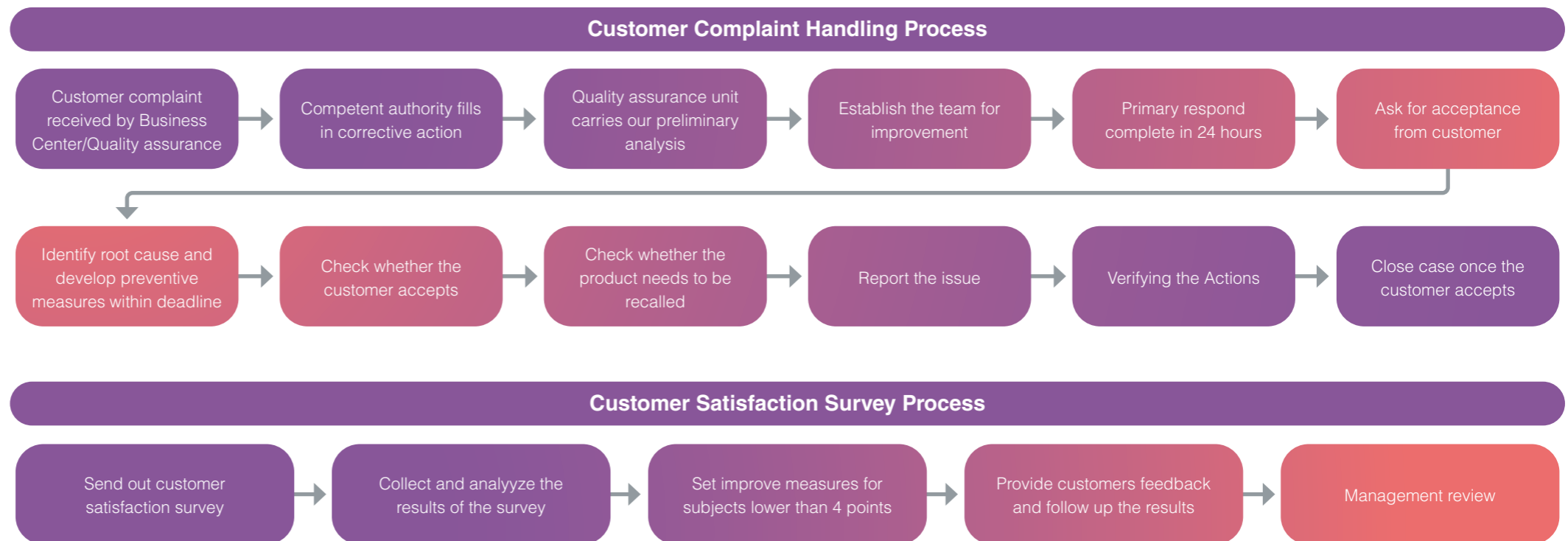
### 4.2.1 Customer Communication

By our advantages of process innovation, information technology innovation, and business innovation, OSE provided high-quality integrated circuit packaging and testing services, and professional electronic manufacturing services to the customers from large international enterprises to small and medium-sized companies which expanded niches. With our high-quality service and cost diversification strategy, production capacity, delivery speed and global logistics support and other services, we hoped to become a good long-term trusted partner of our customers.

To better understand our customers' opinions, we conducted satisfaction surveys and interacted with customers. The feedback from customers and the results of satisfaction ratings were the driving force for OSE to continue to improve and enhance service quality. By understanding and providing customers with a full range of services and high-quality products, we enhanced our competitiveness in the global market.

Meeting customer needs and achieving customer expectations was the goal of OSE, and we have formulated a customer complaint procedure and handled our customer opinions in time according to the procedures. We held customer satisfaction survey every year, and the evaluation items include six major aspects: quality, delivery time, material management, responsiveness, production capacity flexibility, new product introduction and manufacturing technology. Our target scores of the survey for target customers was 4 points out of 5 for each aspect.

In 2023, target customers who responded to OSE's satisfaction survey were the top 10 customers of FMC, the top 10 customers of LIC, and the top 12 customers of EMS, accounting for more than 80% of OSE's revenue. The average satisfaction score of the 6 major items was higher than 4 points, in line with the goals we have set. We also considered it an important affirmation for our products and services.



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

### 4.1 Sustainable Supply Chain

### 4.2 Customer Relationship Management

### 4.3 Product Quality and Safety

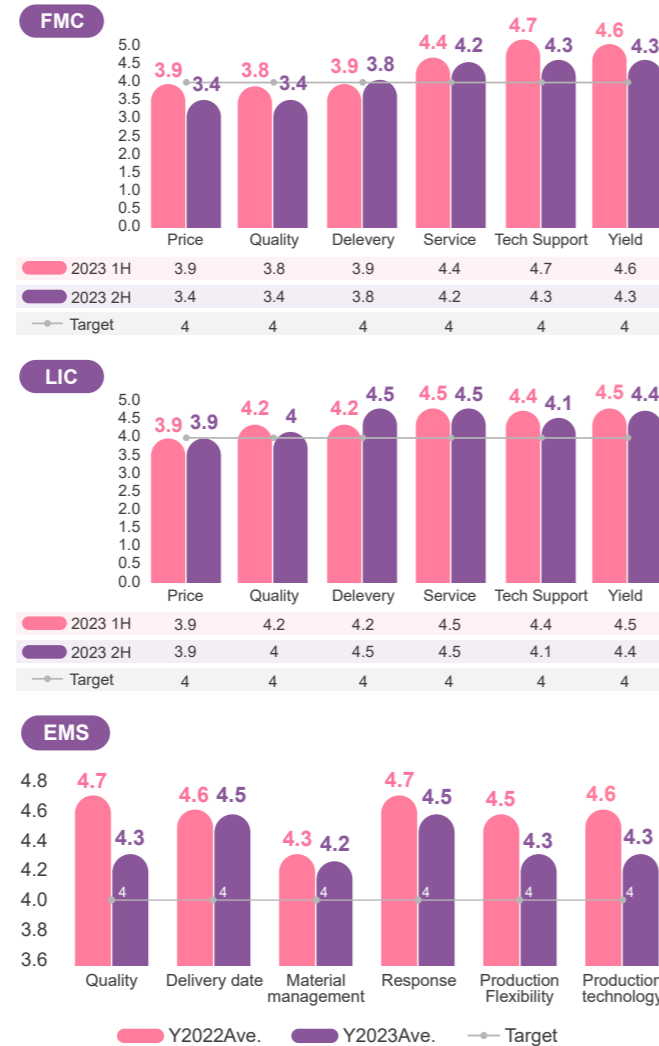
### 4.4 Innovation Research and Development

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

Picture of customer satisfaction of OSE Electronics  
FMC, LIC and EMS



OSE aimed to stay close to customer to meet the requirements. We refined our management, made policies, develop customer-oriented services, integrate procedures, optimized customer service processes, promoted connections and other measures, to work with customers to reduce all the impacts.

## 4.2.2 Management Policies for Maintaining Customer Relationships

Customers first	Customized manufacturing process	One-stop service	Flexible production	Value chain integration
Putting customers first is key. OSE will stand in our customer's shoes and will not shirk the responsibility. We will analyze and uncover root causes, come up with solutions, and follow up so that we can continue to improve.	Understand customer demands, including product characteristics and specifications. customize best processes and reduce turnarou and times.  With an excellent management and engineering team, OSE has fully mastered productivity, yield rate, and process technology with years of experience in electronic product manufacturing and specialized technology	Comprehensive one-stop service, combined with logistics and supply chain management systems,eliminates customers' troubles in material preparation and production,allowing customers to ship without worries.	OSE has achieved economies of scale and has the capacity for flexible production. OSE has multiple advantages. We can customize production for high-mix low-volume products and produce small-batch products while offering the cost advantages of mass production. We continue to expand production capacity to reduce costs and increase the competitiveness of our prices.	Quality, speed, and flexibility are the three major keys to our competitiveness. In 2012, OSE introduced a factory-wide business process re-engineering project to redesign 4 major areas: master production schedule (MPS), learning management system (LMS), manufacturing execution system (MES), and warehouse management system (WMS) as well as the integration of vertical marketing system (VMS) and the business value chain, increasing efficiency, simplifying production, and enhancing information transparency.

## 4.2.3 Customer Privacy and Confidentiality

We knew that stable operating performance and sustained growth laid on the protection of customer information, emphasis on customer privacy and confidentiality, and the implement of sustainable actions. To achieve our premise, building long-term trust and providing support to our customers were necessary. How to develop together with customers was the OSE's unchanging goal of pursuing development.

Customers were important partners of OSE. OSE attached great importance to customers' privacy and confidential information, and strictly ensured the protection of relevant information, like documents, digital information, and other business information exchanged with customers. We strictly controlled daily operations' information security through our internal systems and procedures. The permissions of releasing information should be approved by authorized personnels in accordance with operating standards and procedures.

OSE actively maintained a trustworthy and safe environment for information, ensured the security of data, system equipment and networks, and strengthened the security awareness of employees and kept customer business secrets. OSE signed confidentiality agreements with customers to ensure the security of confidential information, formulated document control procedures and policies, implemented the company's overall information security management, to ensure the protection of data, systems, equipment, and networks.

2023, there were 0 incidents related to infringement of customer privacy in OSE.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

### 4.1 Sustainable Supply Chain

### 4.2 Customer Relationship Management

### 4.3 Product Quality and Safety

### 4.4 Innovation Research and Development

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## 4.3 Product Quality and Safety

### 4.3.1 Product Layout TC-SC-000.A \ TC-SC-000.B

In response to the domestic and international environment and its impact on the market and economy, OSE continued to cooperate with major global memory industries, distributors, and suppliers to develop flash memory by taking advantage of the existing manufacturing platform. We would provide manufacturing service for various applications, invest in CSP BGA market, improving production efficiency, expand the products for Internet and automotive electronics and other uses. Also, we promoted automation and digitalization through refining our product portfolio to increase our income, improve utilization rate and reduce expenditure.

With the merge of global climate change, international initiatives, and the adoption of various reporting standards, it was expected that the requirements of sustainability issues would gradually affect the electronics industry, all the supply chain, and production activities. We attached great importance to environmental, social, and corporate governance issues, and would continue to follow domestic and foreign regulations, collect international and industrial information, evaluate various sustainable risks, make improvements pragmatically, and actively respond to the challenge of various changes.

#### Important Uses and Production Processes of Major Products

Group	Semiconductor group	Electronics manufacturing services group
Major applications	Mainly provides IC packaging for various commercial products, such as computers, communications, the internet, consumer electronics, electronics for vehicles, telecommunications, industrial use controllers, and digital cameras.	Mainly provides IC packaging for various commercial products, such as computers, communications, the internet, consumer electronics, electronics for vehicles, telecommunications, industrial use controllers, and digital cameras.
Product manufacturing process	Electronics manufacturing process: Parts Processing → SMT Assembly → Component Insertion → Automated Soldering → Automated Cleaning and Drying → Testing → Casing Assembly → Testing → Packing → Shipping	Electronics manufacturing process: Parts Processing → SMT Assembly → Component Insertion → Automated Soldering → Automated Cleaning and Drying → Testing → Casing Assembly → Testing → Packing → Shipping

Note: Nearly 100% of OSE products were produced in own factories.

#### Production Value Table for the Last Two Years

Unit: Thousand pieces / NT\$1,000

year	2022			2023		
Production volume	Capacity	Yield	output value	Capacity	Yield	output value
Major Products						
Integrated Circuit	2,134,913	1,001,552	7,315,914	1,744,982	938,488	7,292,490
EMS	195,972	120,156	5,320,245	165,970	93,885	5,195,376
other	794,392	561,133	684,444	794,392	492,242	706,929
total	3,125,277	1,682,841	13,320,603	2,705,344	1,524,615	13,194,795

#### Successfully Developed Technologies or Products

Semiconductor group	Electronic manufacturing service group
<ol style="list-style-type: none"> <li>Ultra-thin wearable memory was verified and introduced into mass production.</li> <li>Completed the development and verification of high heat dissipation packages.</li> <li>The world's first microSD with a capacity of 2TB was developed and mass-produced.</li> <li>The world's first NM Card with a capacity of 512GB was developed and mass-produced.</li> <li>Completed LPDDR5 product verification and introduce into mass production.</li> <li>Completed EUFS3.1 product verification and mass production.</li> </ol>	<ul style="list-style-type: none"> <li>Complied with government policies and directions and assisted in satellite launch.</li> <li>Process technology surpassing IPC-A-610 Class 3 standard manufacturing practice entered volume production and can now be applied to oil exploration, aerospace, and satellite.</li> <li>Automated SSD production line and developed and deployed robotic technology</li> </ul>

# Contents

# Foreword

# 1. Operations and Governance

# 2. Honesty and Integrity

# 3. Environmental Sustainability

# 4. Supply Chain and Product Management

## 4.1 Sustainable Supply Chain

## 4.2 Customer Relationship Management

## 4.3 Product Quality and Safety

## 4.4 Innovation Research and Development

# 5. Sustainable Talent Management

# 6. Inclusive Community

# Appendix

## 4.3.2 Product Quality Management GRI 416-1 、 416-2 、 TC-SC-410a.1

The stability of product quality was the basic requirement of a successful company, and it was also the cornerstone of a company's long-term operation. OSE followed ISO 9001, ISO 13485, IATF 16949, AS 9100 and other quality management standards, and formulated the company quality operating manual accordingly. We committed to establishing a complete quality management system, reviewing the content from time to time and revising it as appropriate, and holding internal and third-party audit meeting every year.

To produce on schedule and with high quality, we continue to strengthen the control of manufacturing technology and quality control. We have developed multiple testing procedures during the manufacturing process to prevent defective products from one manufacturing site passing to the other one and conducted regular audits to ensure that each product fit the manufacturing process, to meet the standards of high-quality products for exceeding customers' requirements.

We have increased automated production equipment, to reduce the dependence on manpower, shorten processes and improve production quality. We also accelerated innovative research and development to maintain good and stable product quality to provide customers with best services. We upheld the spirit of total quality management (TQM), followed international standards and management systems to control our operations and deepen quality awareness through education and training.

### Hazardous Substances Free (HSF) Management

OSE attaches great importance to the quality and safety of products. To ensure that products meet customers' requirements for no harmful substances, OSE had a professional department to handle quality assurance issues. All OSE factories have started to introduce the IECQ QC 080000: 2017 hazardous substance process management system from 2023. The total training hours of related courses reached 82 hours, and certification was expected to be obtained in 2024. We have established internal procedures to effectively manage hazardous substances and environment-related substances. In addition, to strengthen the management of HSF, OSE required and worked with suppliers to supervise the use of raw materials from procurement to production and testing. To meet the international requirements, OSE Hazardous Substances Control List included the listed materials of IEC 62474 and major international directives.

In 2023, OSE had 0 violations of product health and safety regulations, and no related products containing important substances controlled by the international no-hazardous substances directive were sold.

## HSF Accreditation and Compliance with Hsf Standards at OSE

Quality Management	ISO 9001: 2015 Quality Management System
	I ATF 16949: 2016 Global Automotive Industry Quality Management System Verification
	ISO 13485: 2016 Medical device quality management system standard
	AS 9100: 2016 Aerospace Quality Management System
Toxic Free Specification Checklist	RoHS, REACH, Halogen, WEEE, Ozone Depleting Substances, TSCA, Volatile Organic Compounds (VOCs), IEC 62474

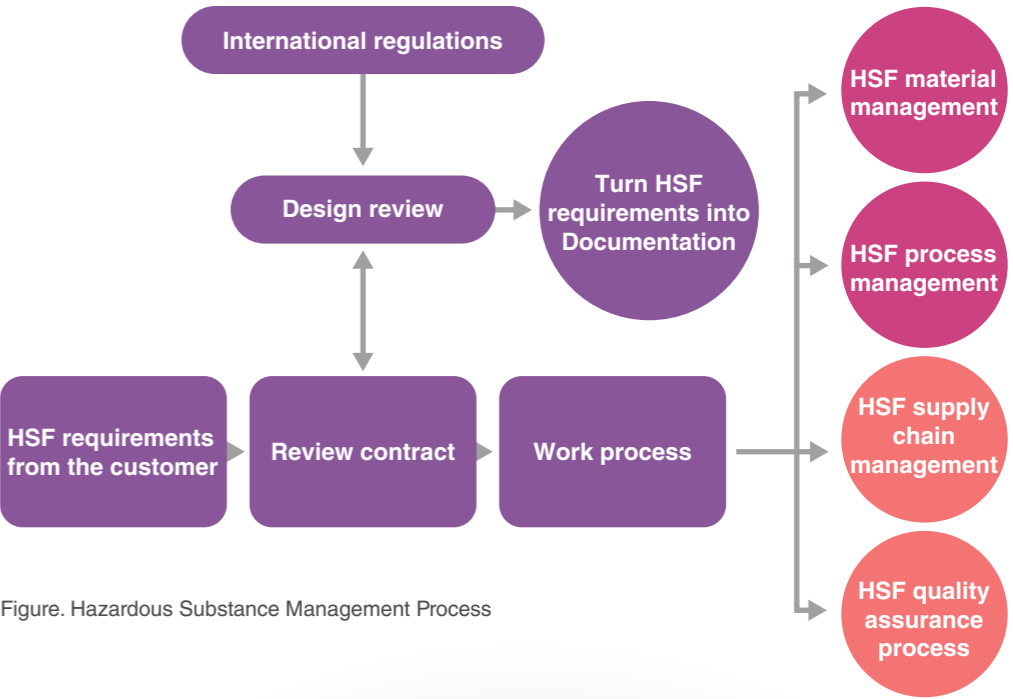


Figure. Hazardous Substance Management Process

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

4.1 Sustainable Supply Chain

4.2 Customer Relationship Management

4.3 Product Quality and Safety

4.4 Innovation Research and Development

5. Sustainable Talent Management

6. Inclusive Community

Appendix

4.4 Innovative Research and Development

GRI2-23 、 2-24 、 2-25 、 416-1 、 416-2 、 TC-SC-410a.1

Impact	Positive: Climate and market demand change have made the requirements of products that could conserve energy conservation, reduce carbon emission, or promote sustainability grow. Although development costs will increase, the outcome of low-carbon technology research and development can make products stay ahead of market trends, increase revenue, and meet customer needs. Negative: Failure to respond to market changes and meet customer needs, resulting in reduced market competitiveness.			
Management Mechanism	Policy	• OSE continues to increase value in response to product development trends, customer, and market demands, investing in the development of packaging products and technologies, and cultivating an excellent R&D team to meet customers' future product needs for high performance, safety, and low cost.		
	Promise	• By cooperating with suppliers, we continue to verify energy-saving, carbon-reducing and low-cost materials, introduce sustainable concepts and green design thinking in our product development stage for customer products.		
	Responsibility	• We use own R&D capabilities and technical resources, working with major customers to develop new products that meet market trends and encourage employees to propose innovative and improved methods at work, and award those who bring innovations.		
	Resource	OSE continues to improve process technologies by working with material, equipment, and software supplier and gain insight into industry trends in advance through Resource from market research organizations to enable us to develop products that meet the needs of the future market and industries. In 2023, OSE invested NT \$386.747 million in research and development funding.		
	Complaint Mechanism	1. Weekly meetings in the R&D department, integrating concepts to conduct new product design, discussions, progress and feedback tracking. 2. Carry out creative ideas through weekly KPI meeting to review. 3. R&D Department assigns supervisors to conduct individual weakness proposal meetings, propose innovative improvement methods and feasibility assessments, and track feedback to improve R&D efficiency and meet market trend.		
Implement	Goals and Target	In response to changes in market demand, the goals set in 2022 have been adjusted to the following goals that were more appropriate and consistent with the ESG concept, to enhance the use of carbon-reducing materials and the use of recycled materials.		
		Items	2024 goals	2025-2030 goals
		Complete SMT low temperature solder paste application micro SD verification	100%	2025: Introduction to mass production 2030: Complete the verification of SMT low-temperature solder paste for all products.
		Evaluation and packaging verification of using recycled gold in wire rods and applying it to all products	100%	Completing the assessment and verification of recycled gold materials, and gradually expanding horizontally to all products.
	Specific Action	1. Research into potential patented technologies focus on energy efficiency, green energy, and carbon reduction. 2. Regularly inspect whether patents continue to provide value and the cost-effectiveness of deploying funds to maintain patents over filing new patent applications, which will allow us to obtain more patents for new technologies and ensure that the technology of OSE's product continues evolving to maintain its leadership position.		
Effectiveness Evaluation	In 2023, OSE applied for 4 global patents and was approved for 2.			

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

### 4.1 Sustainable Supply Chain

### 4.2 Customer Relationship Management

### 4.3 Product Quality and Safety

### 4.4 Innovation Research and Development

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

### 4.4.1 Technology and R&D Investment

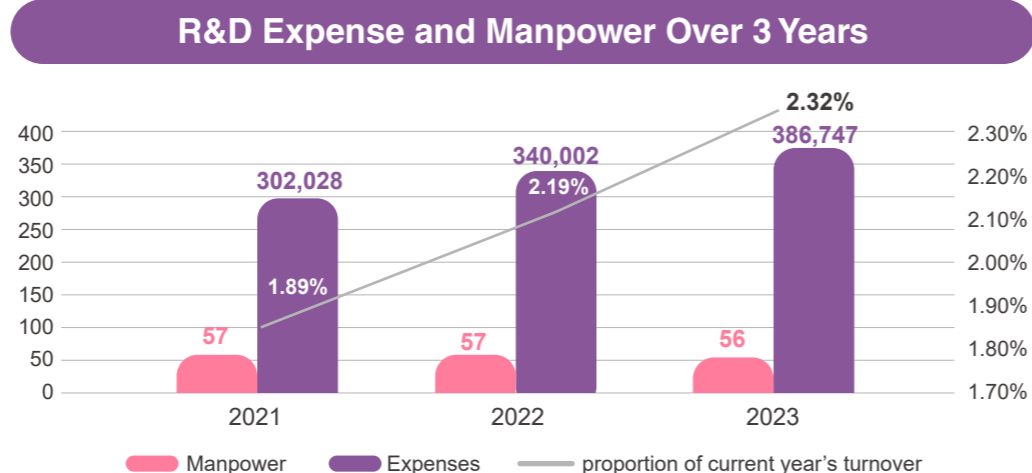
#### Semiconductor Group

Semiconductor Group We will continue verifying 3D NAND flash memory from different fabs and entering volume production, keeping developing flip chip packaging as well. To develop third-generation semiconductor processes, OSE will also continue to introduce and develop advanced flip chip packaging, Fan-Out packaging and EV products. To respond to customer's demands, OSE conducts research into products with good heat dissipation. As for environmental protection, energy conservation, and carbon reduction, OSE consistently follow domestic and international environmental regulations, evaluating and verifying new eco-friendly and low-carbon materials to comply with regulations and meet customer demands.

#### EMS Group

With the transfer of advanced technologies from customers in recent years, OSE has already equipped with the manufacturing capability higher than IPC-A-610 Class 3, which stands out among our peers. The technology can be used in areas such as oil exploration, aerospace, and satellites. Since 2020, OSE has supported government policies and directives, assisting in a successful satellite launch, and expanding our services to countries around the world in response to the demand of the customers. OSE has successively obtained verifications and certifications and is now certified with the capability of providing advanced technologies to customers in niche markets.

OSE's R&D expenses in 2023 was NT\$386,747, accounting for 2.32% of that year's turnover, higher than 2021 and 2022.



### 4.4.2 Innovative R&D Results

Regarding the semiconductor group, OSE's short-term business development plan focused on continuing to deepen customer relationships, creating strategic partners, making full use of existing resources, reducing cost, and carefully selecting niche markets. The main competitive products were lead frame (QFN), CSP, Flash and LPDDR products, etc.

In terms of electronic manufacturing service group, we mainly focused on three aspects: (1) SSD cards; (2) special electronic products whose manufacturing standards exceed IPC-610 Class 3 and were used in special fields such as medical and aerospace; (3) A small and diverse range of niche or future potential products, such as Netcom, AIOT and E-sports, etc.

In the long term, OSE will continue to integrate semiconductor packaging, testing, and electronic assembly technologies, develop niche products (such as products used in EV and wireless communication), and enhance customer relationships to create higher profits.

year	Major R&D Achievements
2021	With the advancement of packaging technology, OSE successfully introduces 0.6 mil gold bond wire into products and has reduces overall gold usage by 10%.
	OSE integrates internal technologies, such as surface mount technology (SMT), flip chip, and wire bump technology. OSE also works with major customers to develop embedded universal flash storage eUFS compliant with international regulations.
2022	OSE leverages strengths in R&D and technology integration and collaborates with major Taiwanese control chip manufacturer to develop the PCIe Gen 4 solid-state drive ball grid array (SSD BGA), which will be widely used on vehicles and servers in the future.
	OSE leverages R&D and technology development capabilities and collaborates with international master control chip manufacturer and major customers to develop microSD and SD (To provide interconnection interface for peripheral component of PCIE).
	With capability of SMT technology, OSE collaborates with main customers to introduce DDR 5 modules to adapt to the needs of the future computer market
	With R&D and technology development capabilities, OSE collaborates with the two major global master control suppliers and introduced the TSMC 12 nm technology into the SSD control chips to facilitate the SSD transition from PCIe Gen 3 to PCIe Gen 4.
2023	Through collaboration with suppliers, OSE was successfully certified on low temperature solder balls, which can reduce CO <sub>2</sub> e emissions by 500 tons per month when applied to our main products.
	Through cooperation with peers, OSE has successfully grown metal on the back of SiC (silicon carbide) crystals, which could effectively improve the heat dissipation of the product and reduce power loss.
2023	OSE used own R&D and technology development capabilities and cooperated with international mainstream controller manufacturers and customers to develop Exposed Die, Flip Chip, CSP packaging, which used in high heat dissipation and high-performance computing products.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

4.1 Sustainable Supply Chain

4.2 Customer Relationship Management

4.3 Product Quality and Safety

4.4 Innovation Research and Development

5. Sustainable Talent Management

6. Inclusive Community

Appendix

Create a Culture of Innovation

Measure	Illustrate	2023 Performance
Created a general module definition file to realize the automatic drawing of wire bonding diagrams	The net(network) names of controller and flash die are inconsistent across companies, making it difficult for our software to create automatic drawings. We, therefore, established a common module definition file to standardize the net names, enabling the automatic drawing of wire bonding diagrams.	1. The overall design efficiency reduced from 3.2 days in 2022 to 3.1 days in 2023. 2. The number of design errors in 2023 was 0
Automatic system search function to provide graphics produced during weekly KPI discussions and brainstorming sessions	In weekly KPI discussions, we found that most of the product Package Outline Drawings (POD), substrate Strip Outline Drawings (SOD) and electrical requirements have been previously processed. Therefore, we furthermore came up with the idea to establish an auto-search system function that can provide graphics in the database, to save manpower and prevent errors	1. Database construction completed. 2. System setup completed. 3. Efficiency increased by 90%, while the average design time reduced from 2 days in 2022 to 0.5 days in 2023, and the number of incorrect drawings was 0
Incentive for proposals	To encourage colleagues to propose more innovative solutions for improvements, personnels who made suggestions for single point vulnerability improvement would be rewarded.	1. There were more than 250 individual weak point proposals, with a completion rate of 77%. 2. Employees who proposed effective innovative ideas and made real improvement were encouraged by recording and rewarding.



Contents

Foreword

1. Operations and  
Governance

2. Honesty and Integrity

3. Environmental  
Sustainability

4. Supply Chain and Product  
Management

5. Sustainable Talent  
Management

6. Inclusive Community

Appendix

# Sustainable Talent Management

## 5.1 Sustainable Talent Management

## 5.2 Friendly Workplace

## 5.3 Talent Development and Education

## 5.4 Occupational Health and Safety

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

## Sustainable Performance and Corresponding SDGs

Implement the United Nations Sustainable Development Goals	SDGs Specific Goals		2023 Sustainable Performance
<b>SDG 3</b> Health and Well-Being	3.3	End communicable diseases	<ul style="list-style-type: none"> <li>Complied with the government policies.</li> <li>Provided supplementary of health information every month</li> </ul>
	3.4	Reduce mortality from non-communicable diseases and promote mental health and well-being	<ul style="list-style-type: none"> <li>100% of employees underwent health checks in 2023.</li> <li>A total of 565 employees underwent 5 cancer screening tests.</li> <li>Followed up on 320 occupational injuries that occurred inside and outside of OSE locations, helping 45 employees return to work earlier than expected.</li> </ul>
	3.A	Implement the WHO Framework Convention on Tobacco Control	<ul style="list-style-type: none"> <li>100% of OSE facilities have obtained the Badge of Accredited Healthy Workplace.</li> </ul>
<b>SDG 4</b> Quality Education	4.4	Increase the number of people with relevant skills for financial success	<ul style="list-style-type: none"> <li>Retention rate of high-performing employees reached 99% in 2023.</li> </ul>
	4.7	Education for sustainable development and global citizenship	<ul style="list-style-type: none"> <li>In 2023, invested NT\$4,692,536 in learning and development programs for employees. OSE employees underwent a total of 95,999.5 hours of training.</li> </ul>
<b>SDG 8</b> Employment and Economic Growth	8.3	Promote policies to support job creation and growing enterprises	<ul style="list-style-type: none"> <li>In 2023, the government granted NT\$1,079,020 for OSE's human resource enhancement program.</li> </ul>
	8.6	Promote youth employment, education, and training	<ul style="list-style-type: none"> <li>In 2023, employees aged 30 and below accounted for 28% of OSE's total number of employees.</li> <li>Organized 2 sessions for 30 students, assisting students with their resume's composition for job hunting.</li> </ul>
	8.7	End modern slavery, trafficking, and child labor	<ul style="list-style-type: none"> <li>0 cases of forced labor or child labor in 2023.</li> </ul>
	8.8	Protect labor rights and promote safe working environments	<ul style="list-style-type: none"> <li>0 cases of work-related fatalities in both employees and non-employees; 9 cases of occupational injuries among employees that occurred within OSE facilities; and 0 cases reported among non-employee workers in 2023.</li> <li>No financial losses from violations and litigations relating to employee health and safety in 2023.</li> </ul>
<b>SDG 10</b> Eliminate Inequality	10.2	Promote universal social, economic, and political inclusion	<ul style="list-style-type: none"> <li>Hired 49 employees with disabilities in 2023, accounting for 0.94% of total number of employees.</li> <li>Compiled the OSE Human Rights Policy in compliance with the Labor Standards Act and labor rights principles recognized internationally.</li> </ul>
	10.3	Ensure equal opportunities and end discrimination	<ul style="list-style-type: none"> <li>0 cases of discrimination in 2023.</li> </ul>

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

5.1 Sustainable Talent Management

5.2 Friendly Workplace

5.3 Talent Development and Education

5.4 Occupational Health and Safety

6. Inclusive Community

Appendix

5.1 Talent Sustainability GRI 2-23 、 2-24 、 2-25

OSE adheres to the entrepreneurial spirit of "integrity, sustainability " and implements the "Code of Business and Ethics Conduct " and core value into practices. For decades, we insist on doing the right thing and doing the things right, whether serving our customers, taking care of employees, running the business, being responsible to shareholders, and being a company with social responsibility, etc.

We regard our employees as one of our most important assets and capital. With a corporate culture of diversity, equality, and inclusion, we focus on promoting humanized management and maintaining good interactions between employers and employees. We hope to build ourselves a dynamic organization with friendly workplace and move forward together with all our employees, to achieve a sustainable, diverse, and inclusive future.

Major Theme Management Policy

Impact	Positive: Design talent development plans, cultivate employees' diversified functions and professional qualities, provide competitive salary that are in line with our business status and our competitors, maintain employees' attachments and recognition s to the company, and enhance OSE 's competitiveness. Negative: Affected by the aging and declining birthrate, the labor supply gradually declines by years. Without planning the position for middle-aged and elderly people or improving the employees ' welfare, we will face the problems of labor shortage as well as talent loss, damaging the rights and interests of employees and affecting the operation of a company.	
Management Mechanism	Promise	OSE uses multiple recruitment channels to develop and retain talent s. We establish comprehensive reward and performance appraisal systems, continue to improve employee benefits, and promote training programs, to enhance employees' competitiveness and attachment.
	Promise	OSE adheres to the belief of people-oriented leadership , values and cares for every employee, and is committed to building a friendly workplace with gender equality, diversity and inclusion, providing competitive compensation and welfare, constructing career comprehensive development plan and continuous learning environment , to attract talents and enhance their retention .
	Responsibility	Human Resources Division 1. The goal of OSE human resources department is to plan and implement various HR tasks such as human resources development goals, strategies, plans, systems, and processes. 2. Establish an "Education and Training Committee": The committee members include OSE senior managers. The committee's main operation is to make education policies, understand annual training needs and review annual training plans in response to annual business strategies. The committee conducts effective performance reviews regularly and make improvements.
	Resource	Provide employees with competitive salary, benefits, incentives, and education funds
	Compliant Mechanism	1. Physical employee suggestion box 2. Staff hotline: 886-7-3613131 ext.68885 3. Employee opinion mailbox: 580@ose.com.tw 4. CEO mailbox 5. Industrial union E-mail: union_h_ose@ose.com.tw

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

			2023 Goals	2023 Performances	2024 Goals	
Implement	Goals And Objectives	High-performing key talent retention rate reaches		≥98%	99.40%	≥98%
		Indirect employee turnover rate		≤1.16%	1.12%	≤1.16%
		Hometown-direct employee turnover rate		< 3%	2.96%	≤ 3%
		Foreign-direct employee turnover rate		<1.5%	1.00%	≤ 1.2%
		Employee salary growth rate		>30%	30.4%	≥30%
		Percentage of job openings filled by internal employees or managers		>74.6%	69.75%	≥ 50%
		Average number of hours of learning for employees throughout the year		>9 hours	18.45 hours	>24H
		Average study hours for management positions throughout the year		>17 hours	33.53 hours	>35H
		of employees who have obtained internal lecturer qualifications reaches		>7%	7.14%	>10%
		new externally hired women in the engineering and technical grades reaches		24.5%	23.48%	24.5%
		The number of disability employee more than legal requirement		2.2%	2.38%	≥10%
		Foreign employment with non-immigrant worker status reaches		4.5%	5.92%	5%
		RBA certified factory working hours management target implementation rate reaches		100%	100%	100%
		No major labor violation cases		0	0	0
		The completion rate of human rights courses reached		100%	100%	100%
	Specific Action	Positive Impact Management	<ul style="list-style-type: none"><li>Develop different talent recruitment channels and talent plans, connect complete resources from industry, government, and academia, recruit high-quality talents offline and online simultaneously, and provide diverse training methods to develop key talents.</li><li>The names of current industry-university cooperation schools and projects include the National Sun Yat-sen University's "Innovation Project of the Institute of Semiconductor and Key Technology Research", the National Taiwan University of Science and Technology's International Industry-Academia Alliance Promotion Office's "Big Data Analysis and Information Security Industry Master's Degree" funded by the Ministry of Science and Technology. Class", fully supports the National Kaohsiung University Industrial Talent Training Base Cooperation "Pilot Implementation Plan for Coaching Excellent Athletes to Engage in Semiconductor Industry Talent Training", and the National Kaohsiung Normal University Cooperation "Engineering International Master's Degree Program International Industrial Master Class".</li><li>Cooperate with nearby colleges and universities in Kaohsiung to jointly carry out training programs for Taiwanese master's and doctoral talents. we will assign industry teachers to the school to give lectures, lectures, and other exchanges to reduce the gap between academic theory and corporate practice. In addition, in line with the New Southbound Policy proposed by the government, we cooperate with Kaohsiung Normal University to develop and recruit talents towards Southeast Asia.</li></ul>			
		Negative Impact Management	<ul style="list-style-type: none"><li>We implement our human rights policy and use training to help employees clearly understand their own rights and our human rights policy. We are committed to building an equal, friendly, and inclusive workplace and growing together with our employees.</li></ul>			
	Effectiveness Evaluation	The ESG Committee formulates policies and goals, and through the operation and cross-department communication and collaboration of five major task groups (environmental friendliness, social inclusion, corporate governance, information security, supply chain cooperation), and through various departments Internal management meetings to discuss and track and review the achievement of goals.				

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

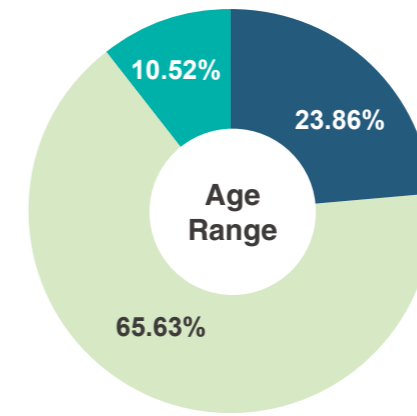
### 5.1.1 Diverse Talent Structure GRI 2-7、2-8、405-1、TC-SC-330a.1.

In the end of 2023, the total number of formal employees of OSE was 5,202, of which male employees accounted for 37.04% of the total employees and female employees accounted for 62.96% of all employees. In terms of employee structure, OSE complies with legal requirements and does not employ child labor. Most employees are young and middle-aged persons, with 65.63% of all employees aging 30 to 50. In addition, OSE is committed to creating a diversified talent structure. In 2023, we had a total of 1,484 foreign employees, mainly from the Philippines, Vietnam, Indonesia, Malaysia and rest of the countries, accounting for approximately 28.53% of the total number of employees, aiming to move forward to create a more inclusive work environment. In addition, in line with the government's employment policy for people with disabilities, OSE had 49 employees with disabilities at the end of 2023. We are striving for providing diversified employment opportunities, hoping to create a diverse, friendly, and inclusive workplace.

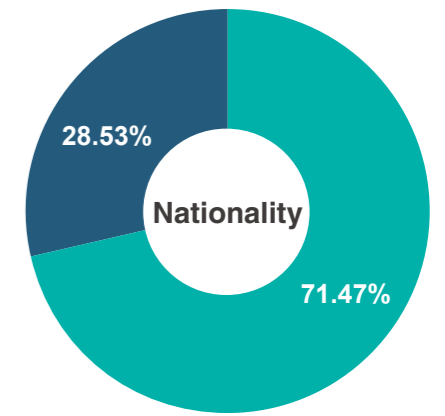
Item	Detail	Male		Female		Total <small>Note 1</small>	
		People	Percentage	People	Percentage	People	Percentage
Age Range	<30	532	10.23%	709	13.63%	1,241	23.86%
	30~50	1,178	22.65%	2,236	42.98%	3,414	65.63%
	>50	217	4.17%	330	6.34%	547	10.52%
	Total	1,927	37.04%	3,275	62.96%	5,202	100.00%
Nationality	Taiwan	1,844	35.45%	1,874	36.02%	3,718	71.47%
	Non-Taiwan <small>Note 2</small>	83	1.60%	1,401	26.93%	1,484	28.53%
	Total	1,927	37.04%	3,275	62.96%	5,202	100.00%

Note 1: The base date for data calculation was based on the active manpower on December 31, 2023.

Note 2: Non-national employees were recruited from non-permanent white-collar workers holding work visas, foreign employees introduced through the evaluation system, foreign mid-level technicians introduced through recruitment letters, and foreign students and foreign spouses who did not hold work visas. etc. composition.



■ <30 ■ 30~50 ■ >50



■ Taiwan ■ Non-Taiwan

Nationality	Managerial Employee		Non-managerial Employee	
	People	Percentage of All Employees	People	Percentage of All Employees
Taiwan	3,059	64.71%	475	100%
Philippines	1,378	29.15%		
Vietnam	194	4.10%		
Indonesia	59	1.25%		
Thailand	16	0.34%		
Malaysia	13	0.28%		
China	5	0.11%		
Myanmar	3	0.06%		
total	4,727	100%	475	100%

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

### Friendly Measures for Foreign Employees

To actively practice corporate social responsibility and comply with the international trend of environmental, social, and corporate governance development, OSE has formulated the foreign worker recruitment policy and a adjusted, as appropriate, in accordance with the Responsible Business Alliance (RBA) and the international human rights standards. OSE abide by the government's regulations and our foreign worker recruitment policy to mitigate recruitment risks and ensure our employee salaries and legal benefits comply with legal requirements.

OSE sticks to the commitment of RBA, formulating policies include human rights, labor protection, etc. We treat employees equally, value the development of diverse talents, and constantly review and improve our workplace and regulations in accordance with government laws and the changes of society. We follow government policies to promote mid-level technical talents on-the-job training courses for migrant workers, extend the working years of migrant workers in Taiwan and improve their professional knowledge and skills, which may help them transfer to professional jobs in the future. We will continue to safeguard the opportunities for the minorities and hope our foreign employees can live and work satisfactorily in OSE.

### Distribution of employees by gender and contract type / Distribution of employees by gender and employment type / Distribution of employees by gender and job type

Item	Detail	Male		Female		Total	
		People	Percentage	People	Percentage	People	Percentage
Type of Hiring	Permanent	1,738	33.41%	1,808	34.76%	3,546	68.17%
	Temporarily <sup>Note 3</sup>	189	3.63%	1,467	28.20%	1,656	31.83%
	Total	1,927	37.04%	3,275	62.96%	5,202	100%
Type of Contract	Full-Time <sup>Note 4</sup>	1,927	37.04%	3,275	62.96%	5,202	100%
	Contract		0.00%		0.00%		0.00%
	Total	1,927	37.04%	3,275	62.96%	5,202	100%
Type of Job	Technical	581	11.17%	2,491	47.89%	3,072	59.05%
	Professional	1,078	20.72%	577	11.09%	1,655	31.81%
	Managerial	268	5.15%	207	3.98%	475	9.13%
	Total	1,927	37.04%	3,275	62.96%	5,202	100%

Note 3: Temporary employees were defined as fixed-term contract personnel, mainly foreign employees, and industry-university cooperation students.

Note 4: The definition of regular employees = permanent employees + temporary employees.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management
 

5.1 Sustainable Talent Management

5.2 Friendly Workplace

5.3 Talent Development and Education

5.4 Occupational Health and Safety

6. Inclusive Community

Appendix

### 5.1.2 Talent Recruitment and Retention GRI 401-1

Due to the fierce competition for talent s in the semiconductor industry, OSE continues to pay attention to the markets, developed different recruitment channels and plans, utilize the resources of industry, government, and academy cs , recruit talents offline and online simultaneously, advertising ourselves through vehicles, social media, fan pages on our official page like Facebook , LinkedIn, Line@, Instagram and other platforms to promote recruitment information , like job vacancy introductions, welfares, employee experiences , online lottery, and offline event highlights , as well as festival or daily interactions and messages, etc.

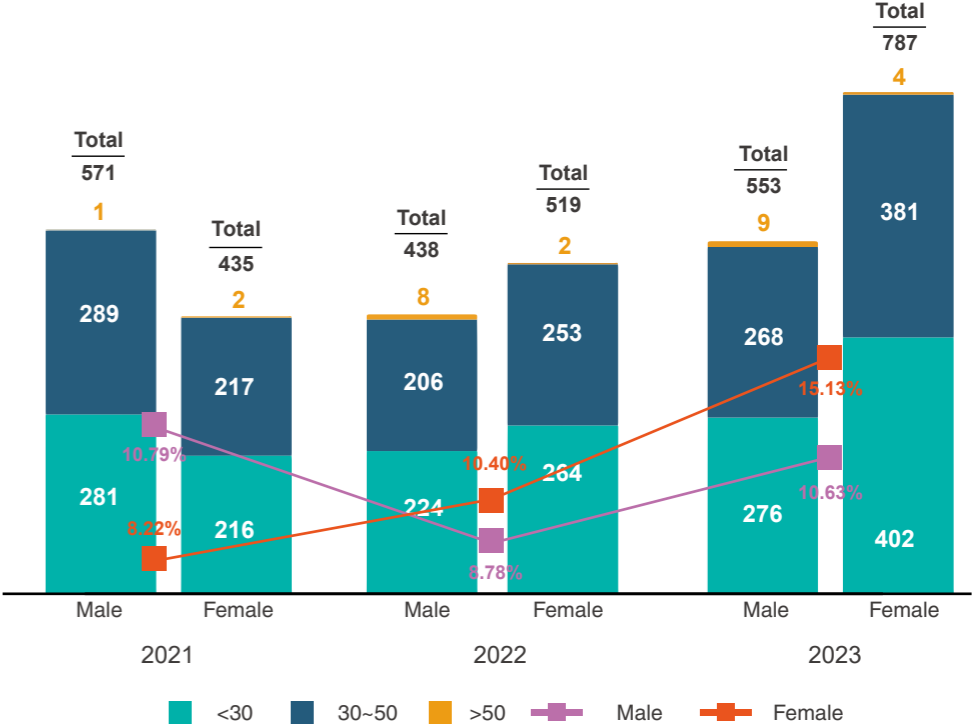
Through the expansion of the recruitment channels, many achievements have been reached. With campus promotion event of the internship system, early entry into OSE is encouraged, and we hold campus lecture for multiple topics to manage the relationship between the school and OSE. By the end of 2023, the appointment ratio of new college graduates in the southern area of Taiwan has grown by 18% for the past 5 years, improving the quality and quantity of our employees. In the future, we hope to build a tie with high school s and strengthen the evaluation system to establish a friendly workplace that is diverse, equal, and inclusive.

OSE recruited a total of 1,340 new employees in 2023. The reason for the increase of recruits was the rising demand for manpower. About 50% of the new employees were the younglings whose age were below 30. Their vitality and enthusiasm were essential for the future development of OSE.

2023 New Employee Statistics and Ratio

Year \ Age	2023			2022			2021		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<30	276	402	678	224	264	488	281	216	497
30~50	268	381	649	206	253	459	289	217	506
>50	9	4	13	8	2	10	1	2	3
Total	553	787	1,340	438	519	957	571	435	1,006
Percentage <sup>note</sup>	10.63%	15.13%	25.76%	8.78%	10.40%	19.18%	10.79%	8.22%	19.01%

Note: New employee ratio = (number of new employees in the reporting year) / (total number of employees at the end of the year)



## Contents

## Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

#### 5.1 Sustainable Talent Management

#### 5.2 Friendly Workplace

#### 5.3 Talent Development and Education

#### 5.4 Occupational Health and Safety

### 6. Inclusive Community

## Appendix

## Resignation

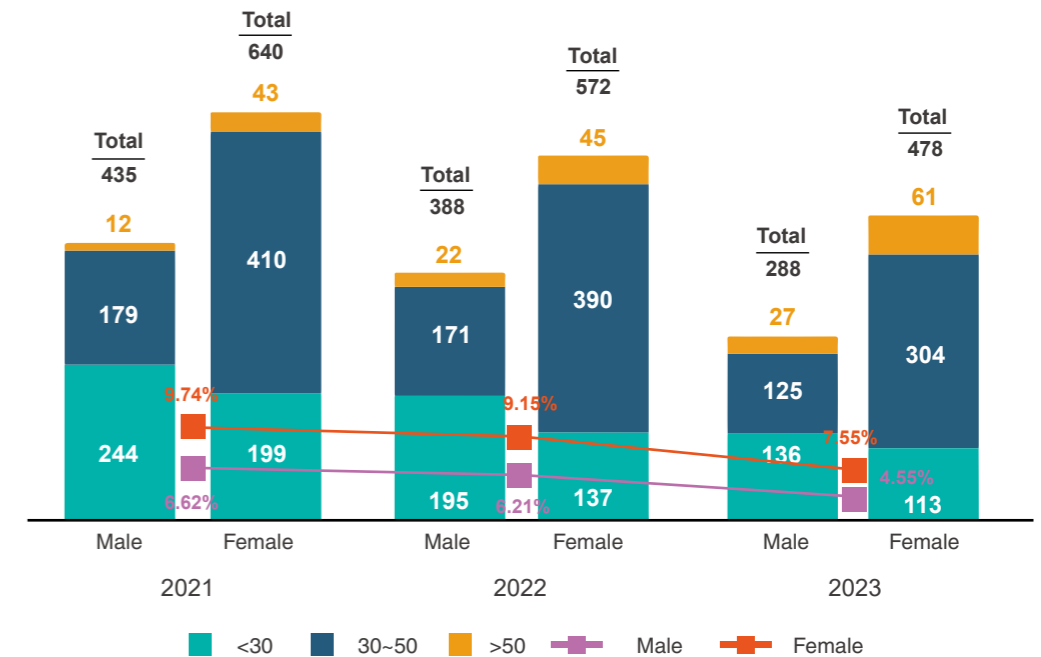
OSE adheres to the principle of respect and caring. When an employee applies for resignation, his/her supervisor and the Human Resources Department will arrange an interview with the employee to understand the reason why the employee wants to leave. We will bring the opportunities like adjusting his/her work according to the personnel's expertise, or transferring to other department, or different work location to increase the chances to stay. We will also conduct talks from time to time with our resigned employees, and actively provide opportunities for those who are willing to return. We also have set up a project for returning outstanding employees, to let them enjoy the benefits of continuing seniority. Moreover, incentive measures have been taken during the hiring period, to encourage our employees to recommend talents or retain, hoping to enhance the employees' attachments to OSE.

Because of the implementation of multiple measures and incentive system, OSE's turnover rate for the past 3 years has been stable, not having been affected by headwinds such as industry fluctuations and market uncertainty. The number of employees leaving in 2023 has decreased by 194, and the proportion was decreased by 3.26% compared to the year 2023.

### Number and Proportion of Employees Who Resigned in 2023

Year Age	2023			2022			2021		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<30	136	113	249	195	137	332	244	199	443
30~50	125	304	429	171	390	561	179	410	589
>50	27	61	88	22	45	67	12	31	43
Total	288	478	766	388	572	960	435	640	1075
Percentage <sup>note</sup>	4.55%	7.55%	12.10%	6.21%	9.15%	15.36%	6.62%	9.74%	16.35%

Note: Ratio of employees who resigned = (number of employees who resigned in the reporting year) / (number of employees at the beginning of the year + number of new employees in the year)



Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

5.1 Sustainable Talent Management

5.2 Friendly Workplace

5.3 Talent Development and Education

5.4 Occupational Health and Safety

6. Inclusive Community

Appendix

5.1.3 Management Practices to Ensure Human Rights

OSE recognizes and supports the principles of human rights protection revealed in international human rights conventions such as the United Nations Universal Declaration of Human Rights, the United Nations Global Compact and the International Labor Convention. We followed the government's Labor Standards Law and took international labor rights principles into consideration to formulate our human rights policy, and made policies on issues such as "free choice of occupation", "young workers", "working hours", "wages and benefits", "humane treatment", "non-discrimination", "freedom of association", etc. We made human rights protection measures into OSE 's core values and culture s, to fulfill our commitment. OSE also follow ed the Code of Conduct of the RBA to formulate internal regulations covering labor rights, occupational health and safety, environment, ethics, and management systems.

OSE publicly recruited and promoted employees based on their qualifications, potential and achievements, without distinction based on race, gender, age, religion, nationality, or political stance, etc. We also adhere to the principles of no child labor and forced labor, continuing to supervise human rights actions through the following methods to protect the interests of employees.

Management Measures Related to Human Rights Protection

GRI 2-30 、 406-1 、 408-1 、 409-1

Focus	Description of Management
Evaluate Human Right	Use d the Self-Assessment Questionnaire (SAQ) of RBA to conduct self-assessment of risks in labor, occupational health and safety, environment, and ethics every year.
Prohibit Child Labor	<ul style="list-style-type: none"><li>• Explicate policy prohibiting hiring employees under 15 years old .</li><li>• Implement a document verification mechanism by human resources department in employee registration procedure.</li><li>• Implement entry control measures and document verification mechanism in contractors entry procedure.</li><li>• Develop child labor remedial measures to prevent recruitment risks .</li></ul>
Guarantee Labor Condition	Labor conditions for employees are clearly stipulated in work rules and personnel regulations. In addition, through the attendance management system, employees' attendance time and overtime status are accurately recorded. If overtime, employees, and their direct supervisors would be reminded of status and legal requirements, so that supervisors can adjust employees' workload in a timely manner, to improve work efficiency and reduce risk of overtime.
Prohibit Forced Labor	<ul style="list-style-type: none"><li>• Develop procedures and policies; communicate with employees and stakeholders.</li><li>• Explicitly prohibit the employment of any form of forced labor, slavery, human trafficking, and unreasonable restrictions on employees' entry and exit from the workplace or restrictions on employees' freedom of movement within the workplace .</li><li>• Conduct regular training for practitioners to implement free choice of career .</li></ul>

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

Focus	Description of Management
<b>Prevent Discrimination and Sexual Harassment</b>	<ul style="list-style-type: none"> <li>• OSE value our employees and regard providing employees with an equal and safe workplace environment as our responsibility. Sexual harassment in the workplace is strictly prohibited. To this end, internal procedures are established to manage issues such as prohibition of discrimination, prevention of unlawful infringement in the performance of duties, and sexual harassment prevention, complaint, and punishment.</li> <li>• Occasionally organize publicity courses on the prohibition of discrimination and prevention of sexual harassment, and provide channels such as a complaint hotline, e-mail, and employee suggestion box to let all employees understand OSE 's strict attitude on handling such incidents.</li> </ul>
<b>Promote Gender Equality</b>	<ul style="list-style-type: none"> <li>• Complying with the provisions of the "Labor Standards Act" and the " Gender Equality in Employment Act", we implement multiple measures to guarantee gender equality. Employees can apply for menstrual leave, maternity check-up leave, tocolysis leave, maternity leave, miscarriage leave and paternity leave according to individual needs. Pregnant employees of night shift will be shifted to prevent work at night in the pregnant and postpartum period.</li> <li>• Employees who need childcare after childbirth can apply for childcare leave and suspension before the child reaches 3 years old, and a procedure of leave and suspension has been established. Breastfeeding rooms has been set up in OSE to provide a better breastfeeding environment for female employees in needs.</li> </ul>
<b>Promote Healthy Workplace</b>	<ul style="list-style-type: none"> <li>• Healthy employees are the cornerstone of a company ' s success. To maintain the health of employees and prevent the occurrence of occupational diseases, OSE has formulated a health service program in accordance with the "Occupational Safety and Health Act". We continue to work hard to create a safe workplace, protect the physical and mental health of employees, and promote the concept of healthy workplace, hoping to achieve the goal of improving business performance.</li> </ul>
<b>Protect Youth Labor</b>	<ul style="list-style-type: none"> <li>• Develop procedures and policies to protect the labor rights and interests of young workers.</li> <li>• Clearly prohibit young workers to engage in work that endangers health and safety, and signs are posted in the work area to control access.</li> <li>• Not allow underage workers to work during night hours (10 pm to 6 am).</li> <li>• The labor contracts signed by underage worker s must be agreed with their legal representative before they takes effect.</li> </ul>
<b>Disability and Expat-Friendly Measures</b>	<ul style="list-style-type: none"> <li>• Establish a special recruitment platform for the disabled and disadvantaged groups, and provide employment information to organizations, groups and related units.</li> <li>• Assist employees to improve their jobs competences through job redesign.</li> <li>• Provide living care for foreigners and organize activities every quarter to reduce the burden of foreign workers.</li> </ul>

In 2023, OSE provided human rights education and training such as the RBA Code of Conduct and internal auditor training, with a total of 5,538 participants and 5,580 hours of training. In 2023, there were no incidents of discrimination, forced labor or child labor in OSE, and we will continue to work hard to eliminate the possibility of related incidents in the future.

OSE respects employees ' freedom of assembly and association. In 2023, a total of 4,989 employees participated in the union, accounting for approximately 95.9% of the total number of employees. The union and OSE hold regular meetings every quarter and work with employee representatives to assist employees in resolving labor incidents, workplace issues, occupational safety, and employee welfare, etc. The nature and related welfare conditions of non-unionized employees are not different from those of unionized employees. OSE continues to operate various employee communication mechanisms, maintain mutual assistance and cooperation between labor and management, actively maintain labor relations and protect labor rights, so there is no other group agreement has been signed.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

## 5.2 Friendly Workplace

GRI 201-3、401-2、401-3、405-2

OSE attaches great importance to the health and well-being of employees. We receive employees' opinions by providing a variety of channels for employees to express, like employee opinion mailboxes, hotline, e-mails, coffee sections with senior managers, aiming to protect female and maternal employees, meet the needs of foreign employees, improve employee welfare, and create an open and equal working environment. To promote health lifestyle and work-life balance of employees, OSE organize lectures, subsidize club activities, hold family day event, etc. from time to time, from workplace to daily life. We are dedicated to giving our employees benefits that are better than legal requirements, so that employees can focus on works without pressure, and relieve their stress as well as develop interests through various activities, to lead a better working life.

### 5.2.1 Improve the Welfare System

GRI 401-2、GRI 2-30、GRI 201-3

#### Bonuses and Benefits

OSE provide employees with welfare that was comprehensive and better than legal requirements. In addition to labor and health insurance in accordance with the law, there is also employee group insurance to strengthen the protection of employee. The insurances include life insurance, disability insurance, cancer insurance and accidental medical insurance, etc., providing comprehensive safeguards system for employees. To promote physical and mental health and make our employees know more about each other, we encourage all our employees to engage in entertainment and leisure activities after work. OSE has established an Employee Welfare Committee in accordance with the Employee Welfare Fund Act. The members of the Employee Welfare Committee are composed of labor s and managers, and the r representative members were elected through public elections. Regular meetings are held every two months, to better protect the rights and interests of employees, review welfare systems, and hold various activities.

### Various Welfare Contents in 2023

Item	Content	Detail	Object
Fixed Benefit	Group insurance	life insurance, cancer insurance, accident insurance, and disability insurance	All employees
	Holiday bonus	Chinese New Year, Dragon Boat Festival, and Mid-Autumn Festival	All employees
	Quarterly bonus, remuneration	In accordance with personal contribution and OSE's business performance	All employees
	Employee compensation	Wedding, funeral, injury, and illness compensation	All employees and their families
	Birthday cash gift	Celebrate employee's birthday	All employees
	Foreign worker	Pay in full the ARC renewal fee, physical examination fee, passport renewal fee, domestic agency fee, new worker recruitment fee, and refund of the working fee in Taiwan	Foreign employees
Flexible Benefit	Scholarship	Reward employees and their children who had outstanding academic performances	All employees and their families
	Activity	OSE Carnival	All employees and their families
		Departmental gatherings, year-end party, clubs (softball, basketball, table tennis, badminton, movie appreciation...), Arbor Day, arts and cultural activities, movie appreciation, CIP (Continuous Improvement Progress) events, SEMICON Taiwan Visiting, Taiwans sustainability Exhibitions Visiting	All employees
		Model staff recognition events	Model staff
		Senior staff recognition events	Senior staff
		Talent Show	New staff
		Spring party, Internship Program	Interns
		Foreign-friendly activities: VR movies, spring outings at Shoushan Zoo, barbecues, film festival specials, Christmas celebrations	Foreign employees

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

## Various Welfare Contents in 2023

Item	Content	Detail	Object
Flexible Benefit	Health Care	Occupational health consultation, regular health check-ups, and irregular health activities	All employees
	Leave	Special leave, marriage leave including participating wedding, maternity check-up leaves, and natural disaster leave	All employees
	Transportation Subsidy	Heavy rain shuttle bus, regular shuttle bus	All employees
		Industrial cooperation program student shuttle bus	Interns
		Free scooter parking space: HQ: 1,128, AT: 1,293, EMS 1, 272, EMS 3 & 5, 832	All employees
		Parking space for electric scooter: 24	All employees
		Parent and child parking bay: 23	All employees
		Disabled parking bay: Space for scooter: 11 , space for car: 1	All employees
	Subsidy	Contract shops, 3 convenient stores set in OSE, staff lounge	All employees
		Accommodation allowance	Interns
		Tutors, subsidies for electricity, water, and accommodation, shuttle bus	Interns
Allowance	Education	Food expense subsidy, and incentive for in-service training	Foreign employees
	Gift voucher	Labor Day, Dragon Boat Festival, Mid-Autumn Festival	All employees
	Gift and Trophy	Senior employees for every 5 years, and model employees pf the year	Senior staff & model staff
	Travel	E-vouchers were issued to accommodate a wide range of individual preferences for employees	All employees



OSE Carnival



OSE Cup of Slow Pitch Softball



Chipbond Cup

## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

#### 5.1 Sustainable Talent Management

#### 5.2 Friendly Workplace

#### 5.3 Talent Development and Education

#### 5.4 Occupational Health and Safety

### 6. Inclusive Community

### Appendix



Mountaineering Club



Yoga Club



Model, Senior Staff and Gold Mentor Recognition Ceremony



VR Activities



Christmas Party for Foreign Employees



Talent Show



Staff Lounge

### Employment Benefits

GRI 201-3

To ensure that employees' lives are safeguarded after the retirement, OSE complies with the Labor Standards Act and the Labor Pension Act respectively. Employees who entered OSE before new law took effect can choose to continue to engage the pension system of the Labor Standards Act. For such employees, we will calculate pensions based on the old system's seniority and their average salary of the 6 months before retirement.

OSE allocate 10% of the total salary to the retirement fund monthly and made deposits in Taiwan Bank's account in the name of the Supervisory Committee of Business Entities' Labor Retirement Reserve. In accordance with the Labor Pension Act, we also allocate 6% of each employee's salary monthly to employee 's personal pension accounts of the Labor Insurance Bureau.

Unit: NT\$ thousand

	2023. 12. 31	2023. 12. 31	2023. 12. 31
Present value of a defined benefit obligation	958,189	956,158	1,102,913
Plan assets measured by fair value	(780,143)	(770,500)	(615,713)
Net defined benefit liabilities	178,046	185,658	487,200

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

### 5.2.2 Parent-Friendly Workplace GRI 401-3

OSE complies with the provisions of the "Labor Standards Act" and the "Gender Equality in Employment Act", implementing measures of gender equality. Employees can apply for menstrual leave, maternity check-up leave, tocolysis leave, maternity leave, miscarriage leave and parental leave according to their individual needs. OSE pays attention to the working environment of female employees. The health center conducts maternal health hazard assessments for pregnant and breastfeeding, adjust their works and changed their shifts to avoid work at night during pregnancy and postpartum period. Employees who need childcare after childbirth can apply for childcare leave and suspension before the child reaches 3 years old, and legal regulations are adopted by OSE to better manage relevant issues. We also provide employees with parent and child parking bays, and there was a lactation room to provide a better breastfeeding environment for female employees with needs.

In 2023, a total of 91 employees applied for childcare leave and suspension, with a reinstatement rate of 64.71% and a retention rate of 85.71%.

#### Status of Childcare Leave and Suspension

Project	2023			2022		
	Male	Female	Total	Male	Female	Total
Employees qualified for taking childcare leave and suspension <small>Note 1</small>	127	135	262	132	156	288
Employees applied for childcare leave and suspension	13	78	91	11	64	75
Employees should have reinstated after taking childcare leave	8	43	51	7	26	33
Employees reinstated in reporting period after taking childcare leave	5	28	33	6	15	21
Employees reinstated in reporting period after taking childcare leave in previous year	6	15	21	0	34	34
Employees reinstated in reporting period after taking childcare leave in previous year and still being employed for more than 12 months	3	15	18	0	30	30
The rate of applying for childcare leave and suspension <small>Note 2</small>	10.24%	57.78%	34.73%	8.33%	41.03%	26.04%
The rate of reinstatement <small>Note 3</small>	62.50%	65.12%	64.71%	85.71%	57.69%	63.64%
The rate of retention <small>Note 4</small>	50.00%	100.00%	85.71%	-	88.24%	88.24%

Note 1: Employees who were qualified for taking childcare leave and suspension = Employees who had applied for paternity leave and maternity leave

Note 2: The rate of applying for childcare leave and suspension = Employees who applied for childcare leave and suspension/ Employees who were qualified for taking childcare leave and suspension

Note 3: The rate of reinstatement = Employees who reinstated in reporting period after taking childcare leave / Employees who should have reinstated after taking childcare leave

Note 4: The rate of retention = Employees who reinstated in reporting period after taking childcare leave in p previous year and still being employed for more than 12 months / Employees who reinstated in reporting period after taking childcare leave in p previous year



Lactation room



Parent and child parking bays

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

### 5.2.3 Fair Salary Management System

GRI 401-3

According to Article 26 of OSE's articles of association, after making up for the accumulated losses in the current year, OSE should appropriate employee remuneration based on the remaining balance to motivate employee performance and maintain OSE's reward competitiveness. OSE's employees' salary standards and adjustment ranges do not differ based on gender, race, religion, political stance, marital status, or union participation, etc., but based on the complexity of their works, professional knowledges, experiences, skills, and the compensation level of comparable peers, etc. We provide a salary that is reasonable and better than the legal requirement, and regularly review our salary evaluation methods to ensure our legal compliances and safeguard our employees' rights, hoping to create a workplace with equal opportunities.

In 2023,

- (1) Market Salaries: We participated in market surveys, benchmarked against external market and business trends to adjust salaries.
- (2) Performance standards: We adjusted employee salaries based on OSE's operating performance and personal performance, etc.
- (3) Promotion mechanism: We established salary ranges for each position and provide outstanding employees with room for advancement and salary adjustment.

In accordance with the regulations of the Taiwan Stock Exchange, OSE regularly discloses information on annual salary and benefit expenses, the salary of full-time employees excluding supervisory positions, average salary, median salary, and the difference compared with the previous year on the website TWSE Mops. Details can be found in the following link:

<https://mops.twse.com.tw/mops/web/t100sb15>

### The Ratio of Gender Wage in 2023

	2023		2022	
	Male	Female	Male	Female
Operation	1.06	1	1.04	1
Professional	1.14	1	1.14	1
Management	1.49	1	1.55	1

	2023	2022
The ratio of standard monthly salary of OSE ' s entry-level employees to Taiwan's legal basics	1.32	1.32

Note: Standard monthly salary of OSE ' s entry-level employees (employees of professional & operation) was calculated based on fixed salary. The standard salary and basic salary ratio of entry-level employees (professional positions, production / operating positions) was calculated based on fixed structure salary.

NT\$ thousand per person

Year	The salary of full-time employees excluding supervisory positions		
	2023	2022	2021
Average income	731	702	666
Median income	642	620	573

## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

#### 5.1 Sustainable Talent Management

#### 5.2 Friendly Workplace

#### 5.3 Talent Development and Education

#### 5.4 Occupational Health and Safety

### 6. Inclusive Community

### Appendix

## 5.3 Talent Development and Education

### 5.3.1 Talent Training and Cultivation

GRI 404-1 、 404-2

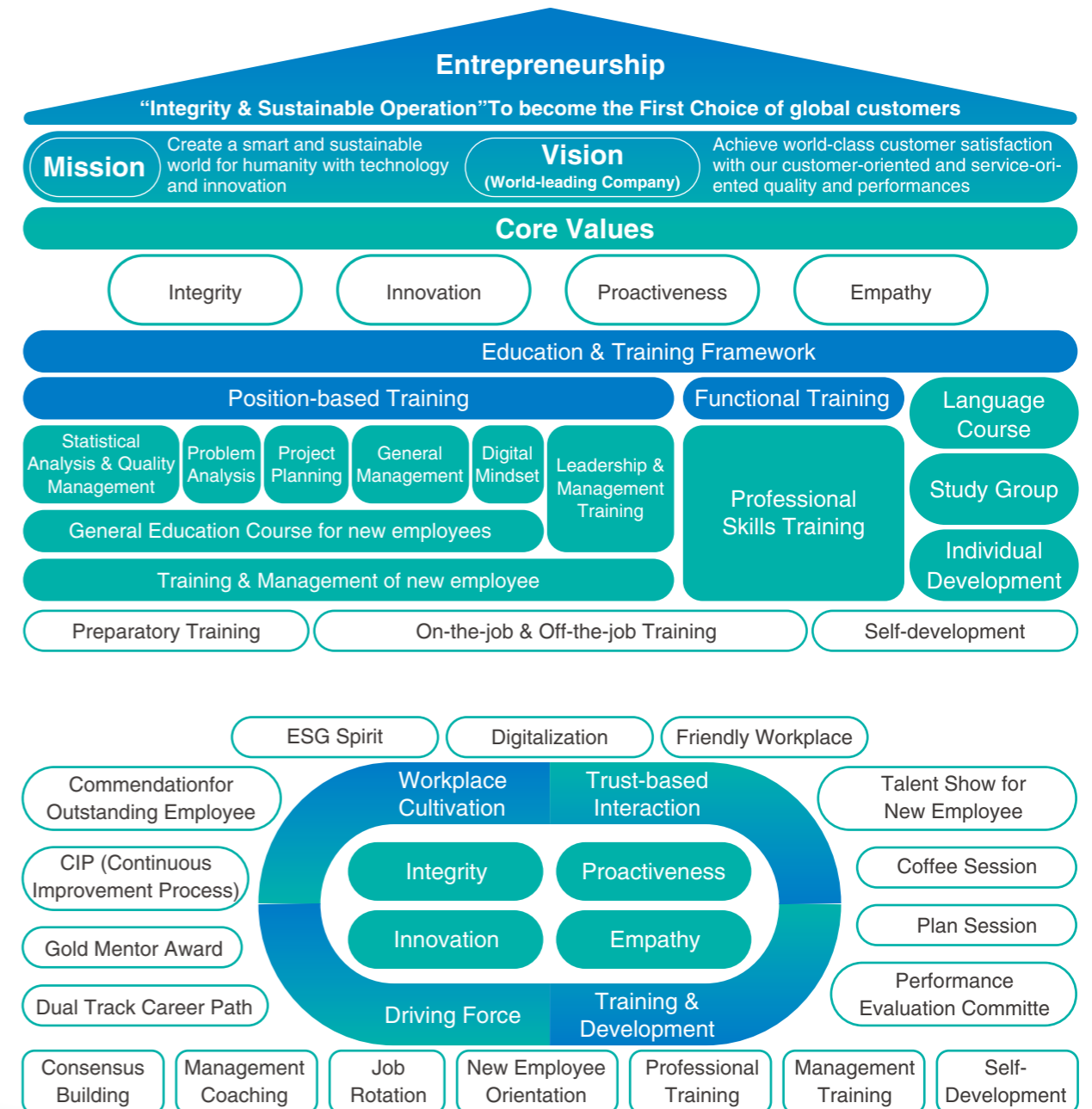
OSE's goal of implementing education and training is to achieve our organizational goals, stimulate performances, and develop the talents according to the needs of enhancing organizational performances. The proposal of annual training plan should be based on the "education and training system", "annual strategic goals" and "customer needs and regulatory requirements" and should be approved by the annual education and training committee before implementation. Also, functional needs and gaps among employees will also be concerned to arrange appropriate personnel to classes.

We conduct systematic and structured training courses, and the results will be thoroughly evaluated and reviewed, to provide useful reference on future improvements. Self-auditing procedures and mechanisms of education has been established, and we continue to examine the implementation, appropriateness, and effectiveness of our education and training, to ensure the procedure, quality, result, and effectiveness of training are all as expected.

In addition, to strengthen the participation of managers at all levels in education and training, OSE has established an education and training committee with senior managers as members to review the policies, implementations, goals, and plans. Department managers need to actively participate in the design of course based on the needs of the department and should supervise their employee's participation in training to evaluate the effectiveness.

#### Talent Development Structure

In line with OSE 's business philosophy, department goals and development needs, OSE has constructed a comprehensive education and training system to improve the quality of manpower, strengthen skills, stimulate the potentials of employees, and support employees ' careers.



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

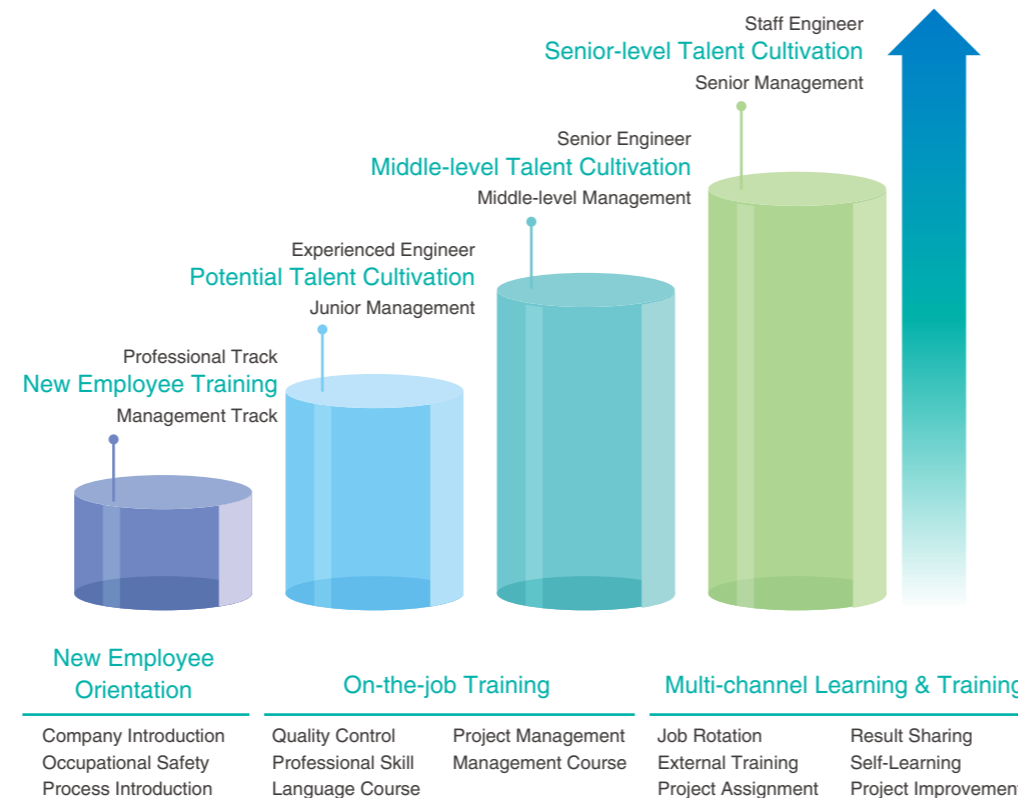
### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

### Career System

OSE implement a "dual-track career system" with the purpose of putting the right people in the right position. The employees who develop their careers in professional positions can also enjoy the benefits like managerial positions. We have also designed a competitive salary policy to promote the talents that OSE needs, hoping to achieve the goals of attracting and retaining talents, and fulfilling OSE 's mission and vision.



OSE uses courses of 3 axis of competitiveness - core, professional, & management capabilities - to construct a comprehensive learning map. We carry out annual training courses based on the "education and training system", "annual strategic goals" and "customer needs and regulatory requirements" and report to OSE education and training committee for approval. We consider the needs and gaps among the employees, and plan training courses and ability development courses at each stage to help trainees apply what they have learned in their positions.

### New Employee Orientation

- Introduction to Onboarding
- General preparatory training (Basic SPC, Quality Awareness & Work Discipline and Process Introduction)

### General Training Course for Indirect Employee (New Comer)

- General Training Course for new Direct Employee
- High Efficiency Practice
- High Efficiency communication strategy

### Training for Direct Employee

- Training & Certification of Professional Skills
- Training & Certification of Specification

### Training for Indirect Employee

- Job Related Training
- Departmental Training
- Training & Annual Certification of Specification

### Training for Junior Management

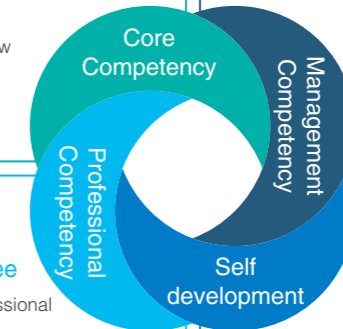
- TWI
- Labor Regulations & Labor-Management Relations

### Training for Middle-level Management

- MTP
- Recruitment Techniques

### Training for High-level Management

- LED Leadership Program



Internal Lecturer Training  
Study Group  
Language Course  
Lectures

### New Staff Training

OSE has established standardized orientation, pre-employment course, professional training, mentor program and production-line trainer system, which help new employees get familiar with their works and adapt to the team quicker. By doing so, we can support the inheritance of experience, and reduce cultural shock and uncertainty for the new employees. We try hard to retain outstanding senior employees and encourage them to join mentor program, by building a culture of honor as well as providing them incentives and bonus. In 2023, OSE completed orientation training for 1,368 new employees, and a total of 54 senior employees completed the mentor training.

To speed up the learning of new production line operators, each production unit of OSE has arranged professional training to make new employees skillful. We standardize course contents to maintain the quality of productions, improve the learning curve of new employees and promote team cohesion. In addition, the "Talent Show" provides a stage for newcomers to share their experiences, a platform of keeping track of their learning status during their probation period, and a chance for supervisors to learn from each other and learn about each department's 90-day probation period training plan.

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

5.1 Sustainable Talent Management

5.2 Friendly Workplace

5.3 Talent Development and Education

5.4 Occupational Health and Safety

6. Inclusive Community

Appendix

### Professional Ability and Management Ability Training

OSE plans training courses based on every position's core capability, and links to career development roadmap. Courses are designed with the needs of management knowledges for different positions and the managers, to actively cultivate leadership, stimulate our staffs to achieve organizational goals, develop the talents, build influence, retain outstanding talents, and build a successful team. What we have achieved in 2023 were as follows:

1. E-Learning Platform: To support learnings, we have established the OSE E-learning platform to provide diverse learning tools and methods, so that employees can learn across time and space according to their needs, whether they want to review or acquire new knowledge, also, and make them easier to track their learning status.
2. Training internal lecturers: OSE strives to pass down know-how, experience, and skill by training internal lecturers, which can reduce the costs of inviting external lecturers and meet the precise training needs of OSE. In 2023, 38 internal lecturers of common courses were trained.
3. Shared reading: One book a year, OSE holds company-wide reading seminars to shape company culture, develop professional skills and improve employees' innovative thinking. In 2023, "The Oz Principle: Getting Results Through Individual and Organizational Accountability" was selected as a joint reading material. The reading seminars were led by general manager and all managers had to participate, and then all managers should lead their own department to read the book.
4. CIP activities: OSE attaches great importance to CIP (Continuous Improvement) activities. We hold CIP activities every year and encourage employees to form teams to participate. We expect our employees could use what they learned from their works and launch projects such as improving workplace, reducing costs, improving efficiency and product quality, hoping to achieve the goals of building employee self-development awareness and improving corporate competitiveness.

Professional Competency and Management Competency Training Courses in 2023

Course Title			Number of attended people	Total training hours
General management	LED leadership	Foster managers' understanding of the competency mapping for leadership and reshape their perception of the managerial role from management to leadership, so that the managers can recognize the needs of organization and leadership and can understand the importance of continuous learning.	60	4
	Internal lecturers	Firstly, develop talents by improving employee's skills, service quality, morale, and training effectiveness to meet the needs and reduce the rate of resignation. Secondly, facilitate internal expertise and transfer professional knowledge through Instructor-Led Programs, to continuously accumulate the know-how and knowledge in OSE.	38	11
	Presentation Skills	Provide trainees a multi-dimensional understanding of presentations, helping them to produce simplified and focus presentations, and training them to use body language for better audience engagement to create impactful presentations.	832	5
	Mentor Training	1. Ensure mentors are equipped with the right mindset and mentality 2. Improve mentors' competency of professions and communication skills in instructing new employees. 3. Give mentors guidelines for effective emotional support and interpersonal communication	54	21
	MTP Middle-level supervisor training	Provide middle-level managers with diversified management tools and knowledge, so that they can better consider how to achieve collaborative good of teams and organization goals at the same time, also build a teamwork culture that can make an organization resilient and a team of proactivity.	56	42
	Game Theory	Employees from business center need to learn about the game theory and use the techniques like prediction and changing, etc., to improve their negotiation skills and strategic thinking to achieve a win-win situation with customers.	32	21

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

Course Title			Number of attended people	Total training hours
Quality management	QC Story	Strengthen employees' understanding of root cause and instruct them on how to solve problems with QC tools and actual case studies to cultivate the right mindsets for problem-solving.	192	52
	DOE Design of Experiment (Basic)	Through practices, to help engineers understand the application, experiment approach, data explanation and function and example of DOE, to better interpret and verify the outcomes from different analysis methods.	44	46
	IATF 16949 Five Core Tools	To systemically identify potential problems in product design, process design, and production process before problems occur to ensure the product quality meets or exceeds our customers' expectations.	314	13
problem solved	8D Problem Analysis and Solving (Basic)	Understand the 8D problem analysis and solving methods, ensure the trainees know the correct process for problem analysis and problem-solving.	235	5.5
	8D Problem Analysis and Solving (Advanced)	The trainees learn to use tools and methods of 8D process correctly, to improve their analysis and problem-solving abilities and cultivate the capability to analyze and identify problems independently with efficiency and effectiveness.	31	7



8D Advanced Course

## Information Security Education and Training

To convey the importance of information security policies and protect company information security, OSE actively cultivates information security awareness among colleagues to integrate such awareness into our organizational culture. We conduct education and publicity on relevant operating procedures and laws to directors, managers, and employees at least once a year, and conduct regular information security education and training for new employees and existing employees, as well as irregular information security supplement knowledges sharing. The total number of people participating in security training in 2023 was 4,642, and the total training hours were 17,078 hours.

Course Title			Number of attended people	Total training hours
General Course	Information Security and Trading Secrets Annual Training	Implement the company's business secret management regulations and establish a basic concept of information security for all colleagues.	4,006	16,024
	Social Engineering and Information Security	Strengthen colleagues' ability to identify phishing emails.	518	259
	Information Security Introduction	Establish basic concepts of handling information security situation and how to protect information security	86	43
Professional Course	Transition to ISO 27001 : 2022 Lead Auditor Training	Understand the purpose and audit criteria of the information security management system to ensure the effectiveness of the organization's information security management.	22	352
	ISO 27001 : 2022 Lead Auditor Training		10	400

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

## Cultivate Digital Talents

In response to the accelerated change of people's work and life caused by the development of smart manufacturing, digital transformation became an imperative issue for enterprises of improving competitiveness. The key to digital transformation lies in breaking the old thinking patterns and use digital technology to solve problems and create values.

OSE's digital transformation implementations in 2023 were as follows:

1. Surveyed employees regularly to track the progress of OSE 's digital transformation maturity: OSE understood the importance of the employees if we wanted to promote organizational digital transformation, so we used self-assessment questionnaire with various indicators to know OSE's overall digital maturity and set the targets to change our indirect employees' thinking of using digital tools.
2. Digital transformation tool demands analysis: Investigated the needs of tools for digital transformation in OSE, promoted training courses for seed trainees, gave examples of application scenarios, promoted to use digital thinking to improve work efficiency, and accelerate internal digital transformation.
3. Solution Day: Shared the knowledge of digital applications, innovative thinking, and AI applications to improve original process, also promoted smart manufacturing, strengthened employees' transformation awareness and adaptability, built employees' understanding of automation, and demonstrated the use of AI application. In 2023, a total of 1 event was held, with a total of 123 participants.
4. Digital Tools Course: Improved the thinking and performance of digital transformation, including training courses on flowcharts, Power BI, Power Automate, Power APP and RPA digital tools to meet the requirement of projects, triggered constantly thinking of the use of new methods of digital transformation, improved the work efficiency, and developed talents for the needs of organizational change. In 2023, a total of 160 people participated, and 68 projects have been completed.
5. Dual-axis digital transformation leadership camp: Senior managers from each unit formed 7 project teams to brainstorm about the ideas of smart manufacturing design with collaborative schools. In the course, it was also put into practice that using an outsider perspective to plan smart manufacturing, transforming to internal knowledges, connecting with OSE's value, promoting the goals of smart manufacturing and sustainability, and accelerating dual-axis transformation.

## 2023 Year Digital Talent Training Course

Course Title			Number of Attended People	Total Training Hours
Digital Transformation	Digital Mindset Transformation	Share organization's digital transformation through case studies to foster an open mind toward digital transformation and initiate the transformation.	175	19
	Application of Digital Tools	Use digital tools (Power BI, Power APP, Power Automate, RPA, etc.) to create automated workflows that can increase efficiency and reduce human errors.	160	52
	Excel Applications (Advanced)	Reduce repetitive work, decrease employee fatigue, and enhance collaboration among employees by learning Excel VBA programming language to foster adaptability and flexibility in the trend of change.	3,954	6
	Excel Applications (Basics)	Reduce daily administrative work, increase work efficiency, and strengthen self-learning and adaptability in employees by instructing them on Excel functions.	26	12

Digital Tools Course



2023 OSE IT Solution Day



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

### Cultivate Future Talents

OSE is aware of the impact of declining birthrate on Taiwan's working population and the shortage of labor in the semiconductor industry. Cultivating future talents' importance grows day by day. In response to the goals of the United Nations SDGs 4.4, OSE is committed to cultivating future talents for Taiwan's high-tech industry. We effectively use the resources from industry, government, and school to assist young people in learning, job hunting, and employment through various channels, helping the youths apply school knowledge to their works, enabling them to adapt smoothly. In 2023, OSE held classes once a quarter, benefiting a total of 34 interns.

### 2023 Intern Training Camp Course

Course Title			Number of attended people	Total training hours
Intern training camp	Tips for not wasting your life	Managers share management tips for achieving a work-life balance status.	20	3
	Resume writing & interview skills	Conduct resume checkups and let interns have the chance to practice how to perform in a interview.	20	3
	Production line tour	Lead interns to visit the production line and learn more about OSE's manufacturing process	20	1
	Daily life in production	Interns may come from different departments of different schools. This course allows them to know the work content of each position and learn about the importance of cross-department teamwork.	20	2
	What do interns do? (personal presentation)	Each intern will share what he or she has learned in OSE with everyone, to test the interns' presentation capabilities and communication skills	20	1
	Self-understanding	Share theories of psychology to interns, lead them to rethink themselves, provide the opportunity to let them examine whether their personalities are suitable for OSE culture, and improve their willingness to join OSE.	20	2

### Annual Training Hours

OSE has a complete layout of education and training in accordance with the annual organizational strategy and short, medium, and long-term goals. In addition to the training projects mentioned in 2023 sustainability report, we have various regular and irregular trainings and assessments for enhancing employees' professional abilities. We hope that through active investment in improving employee training, we could continue to improve the quality of education and demonstrate OSE's determination for reaching sustainability.

In 2023, OSE invested a total of NT\$ 4,692,536 in employee learning and development courses. OSE employees received a total of 95,999.5 hours of education and training. The average employee training hours in 2023 increased significantly compared with 2022.

### Employee Training Hours in 2023

		2023			2022		
Employee type	Gender	Numbers of people	training hours	Average training hours	Number of people	Training hours	Average training hours
Production	male	581	9,075.30	15.6	561	2,790.00	5
	female	2,491	26,433.59	10.6	2,388	6,760.00	2.8
Professional	male	1,078	28,110.61	26.1	1,024	7,623.00	7.4
	female	577	16,450.82	28.5	560	5,810.00	10.4
Management	male	268	8,976.72	33.5	252	4,540.00	18
	female	207	6,952.46	33.6	205	2,153.00	10.5
total		5,202	95,999.50	18.5	4,990	29,676.00	5.9

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

### 5.3.2 Fair Performance Appraisal GRI 404-3

OSE conducts annual performance appraisals based on the organization's annual targets and strategies. Appraisals are unbiased regardless of gender, race, religion, political preferences, marital status, or union membership and evaluate only the personal performance of the employee. We will adjust employee salaries and bonuses based on the results and our operational efficiency to ensure fair compensation practices.

#### Performance Appraisal

Subject	All employees		
Target	Review and give feedback on employee performance through regular appraisals, which can also serve as a basis to motivate employees, improve performances, and map out future career plans. We also use performance appraisals to develop and motivate outstanding talents.		
Implementation	Indirect employees	Department managers	Department-level management and higher are required to undergo performance appraisals every year. Employees are asked to assess their own performances and then meet with supervisors for performance-related discussions. The final performance appraisal is determined and approved by the president/chairman.
		Class level, foreman, professional position	Course levels, foremen, and professional positions are assessed every 6 months. Employees self-evaluate their performance and conduct preliminary evaluation, re-evaluation, and review with their supervisors. Finally, supervisors at or above the department level and the Committee finalize the final performance evaluation before conducting performance interviews.
	Direct Employees		Direct employees are assessed monthly. The monthly behavioral (attitude, discipline) and performance (quality, efficiency) results will be evaluated by the supervisor, and the final performance evaluation will be completed by the supervisor at the ministerial level or above.

### Employee Performance Appraisal Implementation Results

OSE employees who meet the performance evaluation standards and were employed will all accept performance evaluations. In 2023, 4,988 employees received evaluations, accounting for 95.89% of the total number of employees. The reason for the decrease in the assessment rate compared with 2023 was the increase in the number of new employees in 2023.

#### Results of Performance Appraisals

	2023				2022			
	Male	Female	Total	Total Proportion	Male	Female	Total	Total Proportion
Production	548	2,423	2,971	96.71%	554	2,346	2,900	98.34%
Professional	1,011	549	1,560	94.26%	983	536	1,519	95.90%
Management	253	204	457	96.21%	204	249	4,53	99.12%
Total	1,812	3,176	4,988	95.89%	1,741	3,131	4,872	97.64%
Proportion	94.03%	96.98%	95.89%		94.77%	99.30%	97.64%	

Note 1: The performance measurement period is from January 1 to December 31 of each year.

Note 2: Employees in their trial periods (three months) are subject to a separate assessment for new employees and are not required to undergo the regular performance appraisal.

Note 3: The chairman, president, employees on unpaid leave, departed employees, and employees who did not meet the minimum attendance requirement of 50% during the appraisal period, are exempt from the regular performance appraisal.

Note 4: The total number of employees at the end of the reporting period does not include temporary workers and contractors.

# 5.4 Occupational Health and Safety

GRI 2-23、2-24、2-25、3-3、403-1~403-10、TC-SC-320.a.1.~2.

OSE has been adhering to a people-oriented safety culture for many years. Through the ISO45001 management system and specifications, it does require employees to comply with and implement it, and continuously improves from observing people, the environment, and behavior. Persistent education and training enable every employee to Implement the goal of building a safe and friendly workplace and let OSE Company continue to move towards sustainable development.

## Major Theme Management Policy

Impact	<p>Positive: Commit to activities to reduce occupational accidents to create a safe workplace, increase the work efficiency of employees, and ensure we could meet the requirements of all stakeholders.</p> <p>Negative: Fail to effectively reduce the occurrence of occupational accidents and provide a safe working environment, result in increased costs due to shutdowns and business interruptions, increase occupational risks for employees, and have negatively impact on OSE's reputation.</p>	
Management Mechanism	Policies	In compliance with Occupational Safety and Health Act, OSE has now deployed ISO 45001 occupational safety and health management systems and CNS 45001 Taiwan occupational safety and health management systems.
	Commitment	At OSE, we believe in a safety culture and prioritize people's lives. We continue to improve our actions by getting the hang of individuals, environments, and people's behaviors, and focusing on consistent education and training to ensure that every employee knows how to create a safer and more friendly workplace and help OSE maintain sustainability.
	Responsibility	Human Resource Division & Occupational Safety Department
	Resources	We participate in accident drills and collaborate with the Safety and Health Committees of Nanzi technology industrial park to enhance education and training programs. The enforcement of safety and health practices is regularly reported to OSE's labor representatives during the quarterly Occupational Safety and Health Committee meetings.
	Complaint Mechanism	<p>In accordance with the RBA-LB-0009 complaint procedure, we have established internal communication channels such as an employee suggestion box, a hotline, and an email address as well as external communication channels including a hotline and an email address.</p> <p>Internal Reporting Hotline: 07-3613131 ext.68885</p> <p>Internal Reporting Mailbox: 580@ose.com.tw</p> <p>External Reporting Hotline: 07-3613131 # 68558</p> <p>External Reporting Mailbox: csr@ose.com.tw</p>

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

Implement	Goals and Objectives	Performance Evaluation Indicators		2023 Goals	2023 Performances	2024 Goals
		Disabling frequency rate (FR)		< 0.55	0.86	< 0.55
		Disabling injury severity rate (SR)		< 35.12	27.6	<27
		Major occupational accidents (with losses exceeding NT\$ 1 million)		0	0	0
		Minor occupational accidents (losses do not exceed NT\$ 1 million)		2	0	0
		Frequency-severity indicator (FSI)		<10%	<25%	< 22%
		Major occupational accidents		2	1	1
		Completion of abnormality grading management for health checks		100%	100%	100%
		Health promotion events		10	14	15
		Participation in health promotion events		20%	31.3%	30%
		Incidents of occupational illnesses		0	0	0
	Specific Measures	Frontal shock management	<ul style="list-style-type: none"><li>Establish responsibility - Occupational Safety and Health Committee &amp; Risk Management Department - to manage occupational safety and health.</li><li>Participate in Safety and Health Committees of Nanzi technology industrial park.</li><li>Work with insurance company to enforce loss control (through education and training/on-site inspections/improving prevention measures).</li></ul>			
		negative impact management	<ul style="list-style-type: none"><li>Conduct annual hazard identification and risk assessment on the operational environment, equipment, machinery, and services at each factory to determine risk levels based on severity, frequency, and incidence rate and establish related management approaches.</li><li>Bring in on-site nurses and signed a service contract with occupational physicians from Kaohsiung Medical University.</li></ul>			
Effectiveness Evaluation	<ul style="list-style-type: none"><li>In 2023, there was 0 case of work-related deaths among employees and workers that are not employees.</li><li>In 2023, there were 9 cases of work-related injuries among employees and zero cases of work-related injuries among workers that are not employees at OSE.</li><li>In 2023, there were no financial losses from violations and litigations relating to employee health and safety's regulations.</li></ul>					

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

### 5.4.1 Create a Safe Workplace

GRI 403-1、403-2、403-3、403-4、403-5、403-7、403-8

#### Occupational Safety and Health Management Policies and Systems

GRI 403-1、403-8

Ensuring a safe working environment for our employees is a fundamental commitment at OSE. In compliance with ISO 45001 occupational health and safety management systems and CNS 45001 Taiwan occupational safety and health management systems and in line with the spirit of P-D-C-A (Plan-Do-Check-Act) for occupational safety and health management systems, OSE established an occupational safety and health management system targeting prevention to enforce occupational safety and health management. Every year, OSE's occupational safety and health management system undergoes internal audits by trained personnel and external audits by third-party verification companies. In 2023, we passed verifications for ISO 45001 and CNS 45001 for 100% of employees working in our facilities in Taiwan.

OSE established the Occupational Safety and Health Committee, an occupational safety and health organization, in compliance with the Occupational Safety and Health Act. The committee is chaired by Chairman Tony Tung and consists of management from related units, occupational safety personnel, and labor representatives, with the latter (7 labor representatives) accounting for 1/3 of the committee (21 members).

ISO 45001: 2018 Certificate



CNS 45001: 2018 Certificate



The Occupational Safety and Health Committee holds regular meetings every 3 months, bringing together all members to review and discuss safety and health management issues, such as the implementation status of occupational safety and health management plans, internal and external audits of environmental health and safety systems, the establishment of management procedures and processes for corrective and preventive measures, employee feedback and communication, etc. The purpose is to effectively prevent accidents of all kinds and implement measures to reduce occupational accidents, thereby achieving the management goal of "zero accidents."

Contents

Foreword

1. Operations and Governance

2. Honesty and Integrity

3. Environmental Sustainability

4. Supply Chain and Product Management

5. Sustainable Talent Management

5.1 Sustainable Talent Management

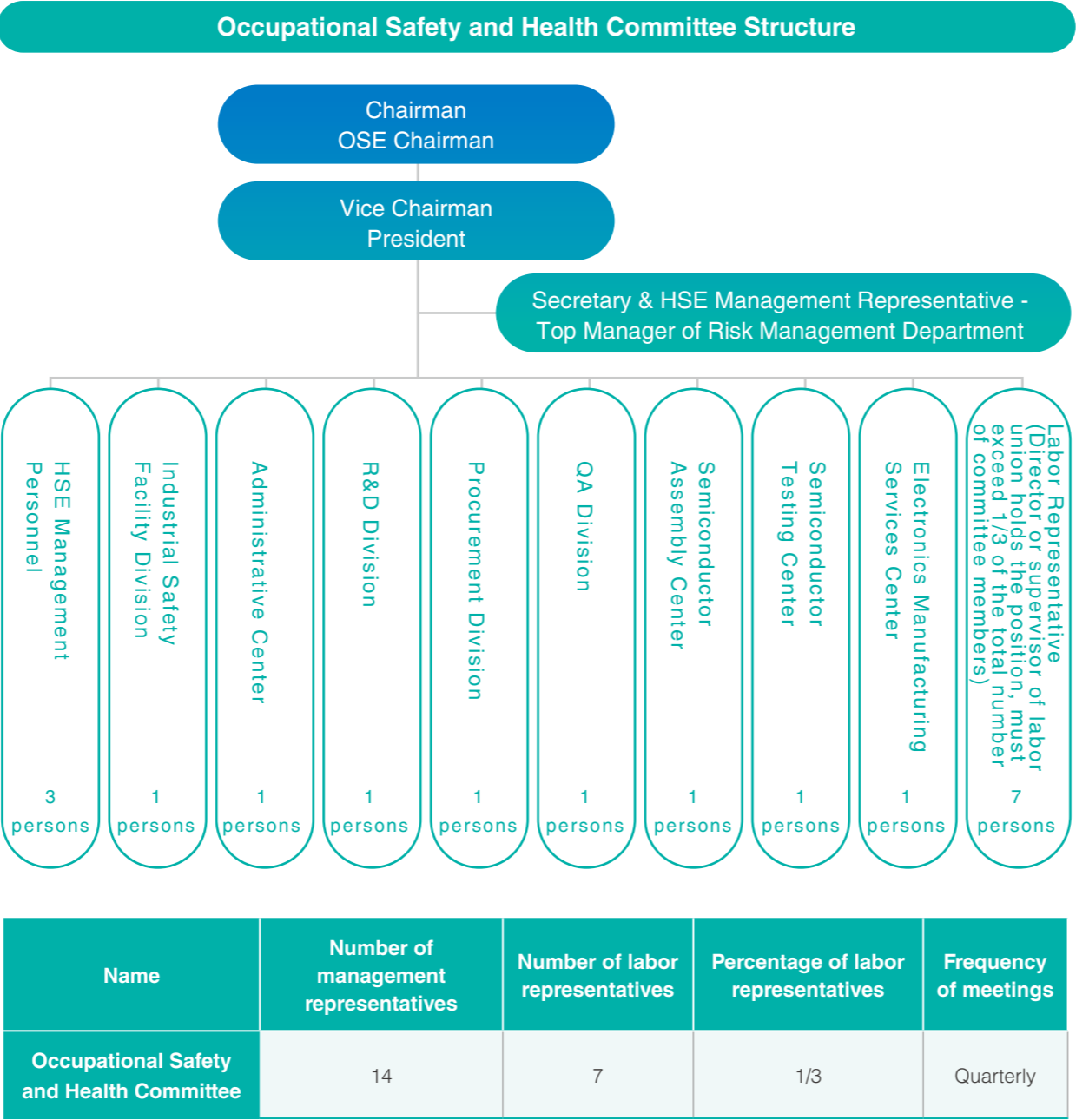
5.2 Friendly Workplace

5.3 Talent Development and Education

5.4 Occupational Health and Safety

6. Inclusive Community

Appendix



Hazard Identification, Risk Assessment and Accident Investigation

GRI 403-2

OSE selects seed trainees from each department to conduct hazard identification and risk assessment of their departments after the training courses. The responsible individuals are required to undergo at least 1.5 hours of relevant education and training on hazard identification and risk assessment annually. When identifying risk factors in the workplace, we consider existing control measures to evaluate risks from potential hazards, determine ways to reduce risks, and formulate related management plans to ensure continuous improvement.

In compliance with our control and management protocols governing hazard identification and risk assessment, we evaluate operations annually and conduct hazard identification and risk assessment on the operational environment, equipment, machinery, and services at each plant to determine risk levels based on severity, frequency, and incidence rate and establish related management approaches. Risk control and management measures are implemented immediately in high-risk operational environments to reduce risks in the workplace.

In 2023, a total of 73 departments conducted assessments and uncovered no material or high-risk hazards. The potential hazards include crushing injuries, cuts, lacerations, and pierces. There was a 1 unacceptable risk in 2023: The electrical box for the public equipment on the top floor of OSE EMS 5 facility was old. After inspection, some of the partitions have been discover fallen off and not properly installed, which might expose employees to electric shock hazards. To comply with Article 241 of the Occupational Safety and Health Act and RBA B1.2 regulations, all electrical boxes in the area were contracted to fix, to ensure employees' safety, and a total of NT\$400,300 was spent on improvement measures.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

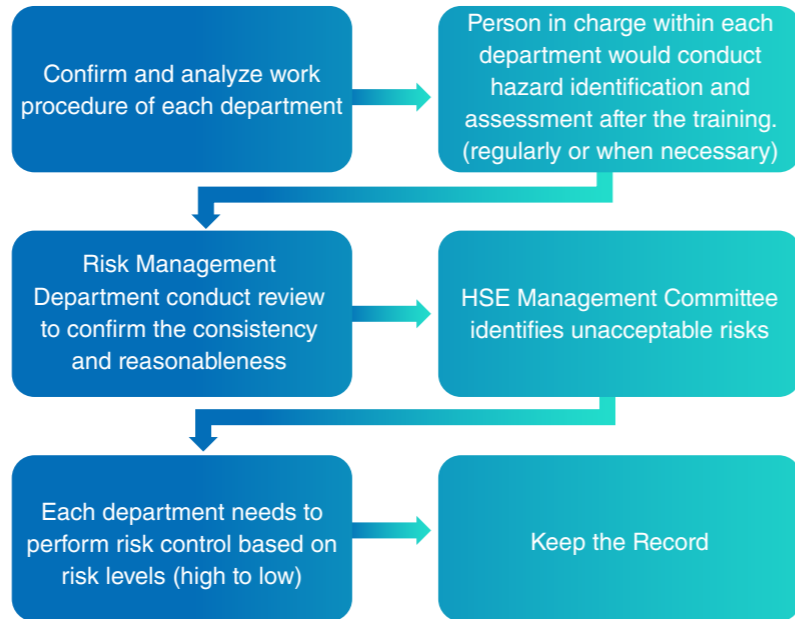
### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

### OSE's Management Protocols on Hazard Identification and Risk and Opportunity Assessments



### Hazard Identification and Management Plans in 2023

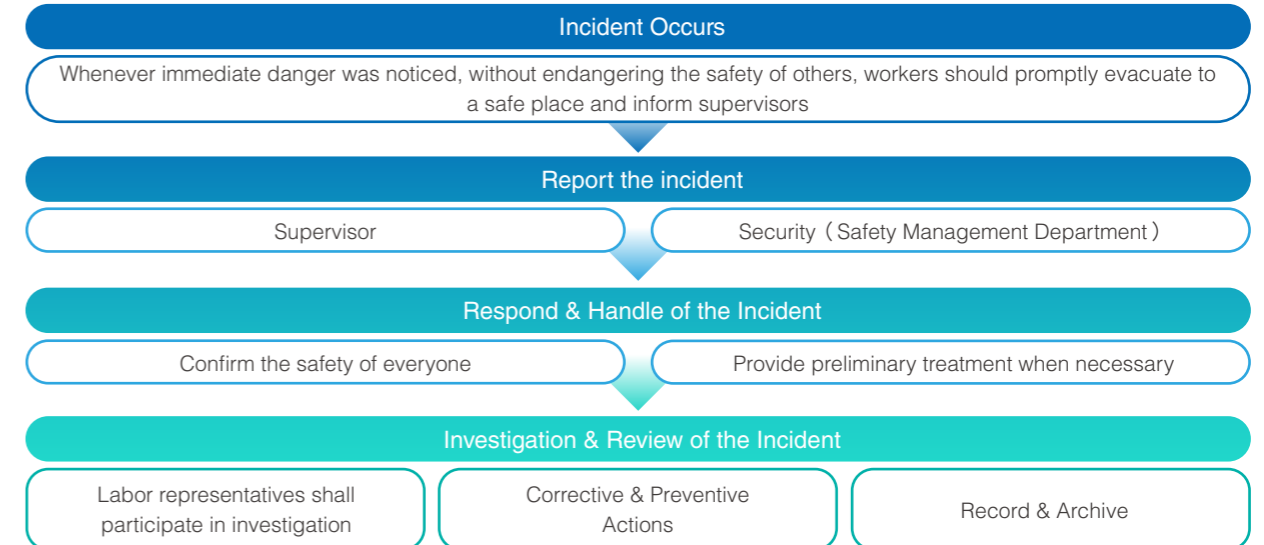
Items	Factory	2023	2022
<b>Hazards</b>	All OSE	73	71
<b>Unacceptable risks</b>	All OSE	1	1
<b>Management plans formulated</b>	All OSE	1	1
<b>Management plans created</b>	All OSE	1	1
<b>Completion rate</b>	All OSE	100%	100%

### Occupational Safety Accident Investigation Management

All OSE factories comply with emergency response procedures for evacuation and retreat in the event of work-related incidents. Afterward, an investigation into the cause and potential reasons is conducted in accordance with internal measures. Upon receiving summary reports from the responsible department or the construction management unit, OSE occupational safety and health personnel are required to act immediately to review, take remedial actions, or implement preventive measures. Personnel shall be dispatched to the responsible unit or the unit managing construction to ensure actions have been taken to enforce improvement measures, reduce potential risks, and prevent similar incidents from happening again.

The goal is to ensure "zero accidents" and involve all employees to reduce occupational accidents. When a work accident occur, a follow-up risk assessment is conducted specifically for the operations where the occupational accidents took place to improve our workplace and enhance safety and health.

### OSE Accident Investigation Procedure



### Reporting of False Alarms

OSE has established a reporting process for false alarms, and the employees can report any unfamiliar people, abnormal events, or strange objects to their supervisors or security office at each factory. The report should include five elements: people, event, time, location, and object to ensure the organization can conduct precise action and minimize risks.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

## Enforce Work Safety Management and Prevention

GRI 403-7

In compliance with the contractor/internal construction management protocols, contractor/internal construction management guidelines, and EHS and procurement management protocols, OSE regularly evaluates contractors quarterly to uncover violations and take immediate remedial action. This allows us to effectively control and manage potential risks in suppliers. Contractors or construction personnel from OSE are required to submit a construction application to the Risk Management Department at least three days prior to the commencement of internal construction operations (excluding workdays). They must also complete the Contractor EHS Consent Form, designate a workplace supervisor, participate in consultative organizations created by the Risk Management Department, and engage in hazard communication. The Risk Management Department compiles quarterly statistics on deficiencies and improvement measures in contractor construction, which are then provided to the procurement unit. The procurement unit will use quarterly statistics in contractor evaluations to increase construction quality and safety. OSE also further identifies high-risk environments within plants, such as ionizing radiation, hazardous chemicals, and dust. We then provide training, PPE (Personal Protective Equipment), and regular specialized health check-ups to ensure the health of all relevant personnel.

Occupational Safety Practice	Description
Management Protocols on Hazard Identification and Risk and Opportunity Assessments	Enforce hazard identification and risk and opportunity assessments according to an operational checklist to effectively identify and control risks.
Change/Procurement/ Contractor Management	<ul style="list-style-type: none"> <li>Leverage change and procurement management to enforce prevention measures through source management.</li> <li>Use contractor management (hazard communication/ education &amp; training/documentary review/supervisory inspections) to effectively reduce risks</li> </ul>
Chemical Management	<ul style="list-style-type: none"> <li>Management of new chemical substances: Use Safety Data Sheets (SDS) to assess hazards and provide related ESH suggestions.</li> <li>Management of existing chemical substances: Established SOPs for the storage, retrieval, transportation, use, and disposal of materials to control risks effectively. Regular monitoring and reporting of the working environment is also conducted in compliance with legal requirements.</li> </ul>
Management of Electrical Hazard Prevention	<ul style="list-style-type: none"> <li>Developed Lockout/Tagout (LOTO) procedures to prevent electrical hazards and control risks effectively</li> </ul>

## Management of Occupational Accident

GRI 403-9 、403-10

The statistics of occupational disasters and false alarms among OSE employees in 2023 were shown as below. In 2023, there were 1 serious occupational disaster, 0 death cases due to work-related injuries, and 8 general occupational disasters; of which 4 were falls, 1 was crushing, and 2 were pinch, and 1 was cut; the total number of false alarms was 18. OSE actively responds to occupational disaster incidents, continues to publicize, and take improvement measures. We are committed to creating a safe workplace environment with "zero occupational disasters".

In 2023, there was 0 financial loss due to the occupational safety fine or lawsuit.

Item/Year	2023	2022	2021
Disabling frequency rate (FR) (same as incidence rate and recordable occupational injury rate)	0.86	0.65	1.13
Disabling injury severity rate (SR)	27.6	46	49.67
Frequency-Severity Indicator (FSI)	0.15	0.17	0.24
Average days lost from disabling injuries	290	502	570
Days away from work rate (days lost/number of injuries and fatalities)	32	71.71	43.85
Number of disabling injuries	9	7	13
Number of serious occupational injuries	1	3	2
Rate of serious occupational injuries	0.1	0.28	0.17
Number of individuals with serious occupational injuries	1	3	2

Improvement actions and responses to occupational injuries in 2023	
1. Carried out investigations and improvements in all areas.	4. Personnel education and training.
2. Strengthened publicity (discussion forum/e-bulletin board/warning slogans).	5. Added machine protection devices.
3. Carried out engineering improvements: replacement of floors, replanning of route, etc.	6. Developed operating procedures and SOPs.

# Contents

# Foreword

# 1. Operations and Governance

# 2. Honesty and Integrity

# 3. Environmental Sustainability

# 4. Supply Chain and Product Management

# 5. Sustainable Talent Management

## 5.1 Sustainable Talent Management

## 5.2 Friendly Workplace

## 5.3 Talent Development and Education

## 5.4 Occupational Health and Safety

# 6. Inclusive Community

# Appendix

## Occupational Safety Education

GRI 403-5

To enhance employees' knowledge and professional skills in safety and health, we established safety and health training programs and organized various courses. OSE conducts ESH-related education and training courses, drills, and automatic inspections including fire safety to strengthen employee awareness of occupational safety and health. After completing the courses, employees undergo assessments or drills (e.g., fire extinguisher training and personal protective equipment practices) to enhance the ability of our employees to identify hazards, reduce risks of occupational accidents, and stay informed about regulatory updates and messages from regulatory authorities.

In 2023, because large chemical fires occurred in Nanzi Park and Pingtung Park in the second half of that year, causing serious property and human life losses. OSE has strengthened our internal management of chemicals and response procedures, and joined regional joint defense group in Nanzi Park, cooperating with peers also located in Nanzi Park to provide disaster with evacuation drills, to effectively achieve the purpose of regional joint defense.

## Occupational Safety Training in 2023

Topic	Content	Subject	2023		2022	
			Count of people	Training hours	Count of people	Training hours
Regulatory ESH Training	General safety and health training	Employees at all plants	All employees	3	All employees	3
	Hazardous chemical substances training	Employees at all plants	All employees	3	All employees	3
	Professional certification training for personnel working with organic solvents, specific chemicals, dust, fire safety management, and radiation operation	All personnel involved with specialized operations	61	18	103	18
	In-service recertification training for certified personnel working with occupational safety and health, organic solvents, specific chemicals, dust, forklifts, fire safety, and radiation operations	All personnel involved with specialized operations	257	3-6	333	3-6
Other Professional Training	Other required training (e.g., traffic safety, hazard identification and risk assessment/control, respiratory protection, fire safety equipment installation standards for various locations, business continuity planning, process change management, earthquake risk assessment, and education and training on the revision of ISO 45001-related procedures)	All personnel exposed to occupational safety and health risks	320	2	277	2
Emergency Response Training	Emergency response training and drills (e.g., evacuation drills, fire safety, chemical leaks, recovery from computer system disruptions, water truck transportation for water shortages, supplier disruption, and workplace security breaches)	All personnel exposed to occupational safety and health risks (all employees working in plants are required to participate in evacuation drills)	The whole plant	2-4	The whole plant	2-4
Hazard Communication Before Entering OSE Locations & Consultative Organizations	Before contractors enter OSE locations for work, OSE communicates any hazards in the workplace and holds meetings with consultative organizations.	Contractor	444	0.5	213	0.5
Education and Training	Contractors are required to undergo education and training to obtain work permits.	Contractor	300	3	203	3

## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

#### 5.1 Sustainable Talent Management

#### 5.2 Friendly Workplace

#### 5.3 Talent Development and Education

#### 5.4 Occupational Health and Safety

### 6. Inclusive Community

### Appendix

#### OSE External Participation in 2023

1. Kaohsiung Nanzi Science and Technology Industrial Park Occupational Safety and Health Promotion Association, serving as vice president.
2. Kaohsiung Nanzi Science and Technology Park Regional Joint Defense Organization, serving as vice president.
3. Participate in the regional joint defense drills of park manufacturers on 2023/11/29 and 2023/12/8 respectively

Evacuation drill



Education and Training in Association



Reginal Defense Drills



#### 5.4.2 Healthy Workplace GRI 403-3 、403-6

Healthy employees are the cornerstones of success for any company. To ensure the health of our employees and prevent any occupational diseases, OSE formulated a health service management plan in compliance with the Occupational Safety and Health Act to continuously foster a safe workplace and safeguard the emotional and physical health of our employees. By promoting a healthy workplace, we hope to further improve our operational performance.

##### Employee Health Tracking

In 2023, OSE implemented a series of employee health management measures, including health checks beyond regulatory requirements. We also arranged further examinations and follow-ups based on the individual needs of our employees. For female employees, we provided a range of examinations, such as Pap smears and breast imaging. In addition, we organize various activities such as colorectal cancer screening, oral cancer screening, and blood donation from time to time. These activities aim to promote employee health and ensure comprehensive health management with utmost efficiency, striving for a 100% participation rate.

OSE cares about employee health, moreover, we aim to ensure privacies of their personal health. All paper documents of health checks are stored in personal folders, while other paper documents are packaged, stored, and destroyed in compliance with our document management procedures. Only company nurses are given access to the backend of our health management system. The system automatically stores any operations within, and employees are required to sign in with their personal accounts and passwords to access their historical information. Information of resigned employees is locked and archived at the Risk Management Department's warehouse in compliance with related regulations.

In terms of epidemic management, although the COVID-19 epidemic slowed down in 2023, various epidemic diseases still threaten people's health. OSE continues to pay attention to changes in the global epidemic, keep abreast of the latest epidemic prevention information, and cooperates with the Occupational Injury and Injury Diagnosis and Treatment Integrated Service Center of Kaohsiung Medical University to discuss company strategies to effectively control the epidemic and maintain the health of employees in the factory.

#### 2023 Employee Health Management Plan and Activities

Project	Effectiveness	Illustrate
Cancer Screening	Inspection items: 5 Number of people tested: 667	Held 5 cancer screening events and organize activities such as colorectal cancer, cervical smears, breast cancer examinations, etc., and cooperated with hospitals to provide first-line diagnosis and post-examination abnormality referral services for OSE employees.
Injury Management	Number of people being tracked and cared for: 362 Number of people returning to work early: 24	For employees injured in work-related injuries and diseases, company nurses provided immediate care and cooperated with contracted doctors, unit supervisors, industrial safety personnel, human resources, etc. to conduct follow-up check and complete the process of interviews, return-to-work meetings, rehabilitation, and work reinforcement, etc. letting employees engage to their work normally after their returning.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

### 5.1 Sustainable Talent Management

### 5.2 Friendly Workplace

### 5.3 Talent Development and Education

### 5.4 Occupational Health and Safety

## 6. Inclusive Community

## Appendix

Project	Effectiveness	Illustrate
<b>Bone density test</b>	Activity participation rate: 100%	Cooperated with hospitals to conduct bone density testing for employees in various factories. The results of the rapid testing were shown to the employee in time, and reports, explanations and health education were provided at the same time as well.
<b>Health lectures on building muscle and losing fat</b>	Number of participants: 115 people	For employees who needed to strengthen their health concepts such as the harm of sitting in the office chair too long and lacking exercising may make them stressed and lose muscle groups gradually.
<b>Climbing stairs /self-discipline activity</b>	Number of participants: 272 people	An annual health promotion activity. Employees were encouraged to exercise more, pay attention to changes in their weight, body fat, and blood pressure, and to log the information into the health management system. Those who have done so may have the chance of winning prizes.
<b>I-Health activities</b>	Number of participants: 329 people	The duration of I-Health activity was about half a year. With the period, health lectures and weight loss activities were held every month as well as the competition.
<b>Healthy workplace promotion award</b>	Top prize	Due to the organization of a series of activities such as health lectures, bone density testing, fundus secrets and weight loss activities.
<b>Epidemic prevention management</b>	1. Epidemic prevention materials: 3,579 doses of antigen and rapid screening reagents. 2. Epidemic prevention monitoring: provided rapid screening reagents for testing. 3. Factory area disinfection: prepared 75% alcohol for disinfection of factory areas, public spaces, and dormitories. 4. Individual care: caring for high-risk cases, 5 employees on business trips having been provided epidemic prevention kits.	1. Sufficient preparation of epidemic prevention materials 2. Rapid screening reagents were available to fetch at each guard station and health management center. 3. Factory area disinfection: prepared 75% alcohol for use in factory areas, public spaces, and dormitories. 4. Individual care: cared for high-risk cases and track their statuses, especially for the employees who were on business trips, and provided epidemic prevention kits for them to use.

Project	Effectiveness	Illustrate
<b>Providing regular/ special health check-ups</b>	Number of people tested: 2,100, with a completion rate of 100%	Employee health examinations and special examinations are held every year and carried out in compliance with laws and regulations, with every 5 years for those under 30 years old, every 3 years for those were between 30-45 years old, and every 2 years for those 45-65 years old, and once a year for those over 65 years old.
<b>Health examination report hierarchical management and tracking</b>	Red light level: 51 people, with a completion rate of 100%	For employees whose health conditions were yellow and red-light level would conduct follow up checkups, and red-light employees are 100% re-examined and tracked
<b>Abnormal workload promotes disease prevention</b>	Completion rate 100%	For high-risk and medium risk personnels with abnormal workload, one-on-one interviews and health education will be conducted with occupational nurses /occupational doctors.
<b>Human factors engineering job assessment</b>	Completion rate 100%	After an industrial safety investigation, an occupational doctor would conduct an on-site visit, analyze key indicators, and make recommendations based on the actual work situation. Education, training, and guidance would also be provided. An evaluation would be conducted three months later to confirm the improvement results.
<b>Maternity protection program</b>	The participation was 72 people, and the care completion rate was 100%.	During pregnancy, employees should conduct workplace hazard assessments and maternal health protection interviews with occupational doctors. Improvement and management measures should be made based on risk levels, and follow-up care interviews and workplace environment hazard assessments should be conducted within one year after pregnancy or during lactation.

## Occupational Safety Communication

GRI 403-4

To facilitate effective communication of safety information within the factory, OSE employees can consult or exchange opinions through employee suggestion boxes, dedicated telephone lines, and e-mails. OSE also participates in relevant occupational safety and health issues and activities, including but not limited to ISO 45001 / CNS 45001, through occupational safety and health education and training courses, publicity and quarterly occupational safety and health committee meetings (and labor representative consultation) Revision of relevant procedures and specifications, accident investigation and operating environment monitoring, etc.

For other workers who are not employees, OSE conveys the construction management regulations of OSE factory by disseminating contractor management regulations and environmental, safety and health precautions, and carries out relevant application operations, pre-construction agreement organization, hazard notification, and on-site construction safety in accordance with the regulations. Management, and annual occupational safety and health education and training for contractors. We continue to communicate with our contractors to make workplace safety an integral part of our company.

## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

### Appendix



# Inclusive Community

## 6.1 Local Communities

## 6.2 Youth Empowerment



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

### 6.1 Local Communities

### 6.2 Youth Empowerment

## Appendix

## Sustainable Performance and Corresponding SDGs

Implement the United Nations Sustainable Development Goals	SDGs Specific Goals		2023 Year Sustainable Performance
SDG 4 Quality Education	4.4	the number of people with relevant financial success skills	<ul style="list-style-type: none"> <li>In 2023, resume checkups for job-seeking students were held. A total of 2 sessions were held, benefiting 30 students.</li> <li>In 2023, we continued to invest in the "Dual-track Flagship Cooperation Program" to train a total of 30 students.</li> <li>In 2023, we continued to invest in the "Industry-Academic Cooperation Plan- Special Class for Overseas Chinese Students " to train a total of 212 students.</li> <li>In 2023, we continued to invest in the "Industry-Academic Cooperation Plan" to train a total of 50 students.</li> <li>In 2023, we continued to invest in the "College Employment Program" to train a total of 30 students.</li> <li>In 2023, we kept the cooperation with the College of Semiconductor &amp; Advanced Technology Research of the National Sun Yat-sen University and continued to train 10 students/year and would last for a total of 8 years.</li> <li>Signed a contract with Kaohsiung Normal University's International Industry Master's Class in 2023, planning to provide scholarships, bursaries, internships, and employment opportunities to 5 people, totaling NT\$ 1.6 million.</li> </ul>
	4.5	Eliminate all discrimination in education	<ul style="list-style-type: none"> <li>In 2023, it sponsored non-city elementary School (Jingyi Elementary School, Neimen) to provide children's film courses and aesthetic film screenings. A total of 2 screenings were sponsored, benefiting 41 students.</li> <li>In 2023, OSE worked with Business Weekly, the Soil and Water Conservation Department of the Executive Yuan, and the City-State Culture and Arts Foundation to jointly promote a soil and water conservation education project – a coloring fun activity and provided 1,000 drawing papers to support school water conservation education. The course in 2023 has benefited 1,000 students.</li> </ul>
SDG 14 Sustainable Oceans and Conservation	14.1	Reduce ocean pollution	<ul style="list-style-type: none"> <li>In March 2023, we participated in the beach clean-up event held by Kaohsiung City in Ziguan. A total of 25 people participated that day and picked up a total of 104 kilograms of marine debris.</li> <li>In October 2023, employees were invited to participate in the "Hi~ Chikan" embarkment cleanup event along with the local community guided tour in Chikan, Ziguan. A total of 50 people have participated and picked up a total of 71 kilograms of marine debris.</li> </ul>

## 6.1 Local Communities GRI 413-1 、 413-2

OSE supports the United Nations Sustainable Development Goals (SDGs) and believes that sustainable business operations must correspond with the global trends, cooperate with local communities, and incorporate the concern for the well-beings of the people as our guideline for practicing corporate social responsibility. We have long been dedicated to the projects like "caring for the disadvantaged", "giving back to the local communities", "eco-friendliness" and other important issues. We also deeply recognize the importance of "youth development" and promote multiple projects to support the youth and local society development. In 2023, OSE did not have any incidents that had a negative impact on the society. We would continue to use our influence on positive change and thrive together with the local society.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

### 6.1 Local Communities

### 6.2 Youth Empowerment

## Appendix

### 6.1.1 Caring for the Disadvantaged

#### Film Course Campaigns

OSE values children's education and promotes diverse cultures, including arts, social sciences, and humanities. We collaborated with the Kaohsiung Film Archive to tour non-city schools and offer "Film Electives" and designed several film courses to support the curriculum. Selected films for screening focused on outstanding short films from Taiwan as we aimed to integrate "visual literacy" into "arts and humanities" at all levels of education. With the guidance of instructors, students watched short films and engaged in post screening discussions and analyses, which helped them understand the aesthetics and production elements of film while expanding their perspectives through active participation and appreciation.

In 2023, film courses were held at Jing-Yi Elementary School, Neimen, with a total of 29 participants.



Note : Non-city schools: Public schools that are not in remote areas, but recognized by the Ministry of Education that they are lack of educational resources and need assistance. Non-city schools are often neglected in the past and their resources might even more scarce than the schools in remote areas.

#### "OSE Refresh" A One-day Secondhand Charity Booth Was Held by OSE to Raise Aids

In the end of November 2023, OSE planned a recycling market event, setting a one-day charity booth to sell secondhand goods, also gave old things new life and promote the environmentally friendly concept and charity. In this event, OSE has raised a total of 35,420 NT dollars, and all the amount was donated to the Eden Social Welfare Foundation, aiding the service program for people with disabilities. In addition to the funds, 10 boxes of unsold supplies were also donated to Syin-Lu Social Welfare Foundation for further use. OSE is dedicated to take up our corporate social responsibility, improve the well-being of the society.



#### Interviewed by Business Weekly - Environmental Education Program

OSE joined the Environmental Education Program of Business Weekly that accompany our next generation to get more about ESG. The program introduced Soil and Water Conservation Education into the school curriculum in the form of coloring artwork to cultivate aesthetic literacy for 5 elementary schools in the coastal area of Kaohsiung near OSE. We provided 1,000 pieces of drawing paper to support schoolteachers' soil and water conservation courses, letting the children not only experience the fun of painting, but also plant the seeds of the awareness of the importance of soil and water conservation in children's hearts. OSE believed that education was an important way to cultivate the next generation's awareness of environmental protection. We hoped that through the activities we supported, children would have more opportunities to acquire knowledges such as humanism, aesthetics, water and land conservation, and environmental protection, to lead a sustainable future.



## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

### 6.1 Local Communities

### 6.2 Youth Empowerment

## Appendix

### 6.1.2 Giving Back to Society

#### Youth Art - Great Harbor Corporate Sustainable Art Creation Project

OSE supported the cultivation of young talented artists, provided scrapped circuit boards and other electronic waste to young artists to create environmentally friendly creations, to practice the concept of sustainability with arts. Since 2022, we have continued to support the "Youth Art Power - Great Harbor Corporation Sustainable Art Creation Project" guided by the Kaohsiung City Youth Bureau, donating the resources of OSE to support the development of young artist in Kaohsiung. We hoped to build a virtuous cycle by our actions and make good things happen whether in or out of OSE.

In 2023, OSE continued to sponsor the event and provide electronic waste 2 times for young artists' creations. 4 amazing artwork which used our materials were created. One of them won the silver award of 2023 Youth Art Power, and another one also entered the list of special collection.



#### OSE Food Sharing Platform-Baobao Convenient Store

In response to the concepts of loving, cherishing, enjoying, and sharing food, OSE has set up Baobao convenient stores in the restaurants of each factory to share food surplus, festival offerings or Chinese New Year's gifts with employees twice a month or after festivals, to avoid food waste and share food with those needed. In 2023, the number of employees benefiting from Baobao convenient stores was 1,100 approximately.



### 6.1.3 Environmental Protection

According to the United Nations Environment Program (UNEP), it is estimated that 10 to 20 million tons of plastic wastes entered the ocean every year. Various marine species are affected by marine plastic pollution including endangered species like sea turtles, whales, and other species. They may accidentally ingest marine debris, or be entangled or contaminated, causing the marine ecosystem to lose balance and impacting on biodiversity. It is estimated that the damage of marine ecosystem has caused up to US\$13 billion loss! OSE actively responded to the United Nations SDGs 14, organize beach clean-up activities every year, and promote the importance of protecting oceans and water resources from time to time, hoping to use our strength to participate in protecting the environment.

#### OSE Participate in the Beach Cleanup Activity at Kezailiao, Ziguan District

In March 2023, the Environmental Protection Bureau of the Kaohsiung City Government held a beach cleaning activity at Kezailiao, Ziguan District. 25 cross-department supervisors and employees from OSE formed a OSE Baobao Team and picked up a total of 104 kilograms of marine debris, which accounted for about one-fifth of the total amount of the whole activity, and won the first place in the activity.



#### "Hi~Chikan" 2023 Embankment Cleaning Activity

In October 2023, OSE held an embankment cleaning event for both parent and children at the Chikan Beach at Ziguan. Our employees used their actions instead of talks to protect the marine environment, with around 50 people participated that day and picked up 71 kilograms of marine debris. OSE supported the culture and economy of the local community. This embankment cleaning event also included Chikan community tours and traditional fish ball hand-making activity, letting our employees have the chance to know more about the local culture and lives, also purchased local ingredients as souvenirs, to put the concept of ESG into practice.



## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

#### 6.1 Local Communities

#### 6.2 Youth Empowerment

## Appendix

### 2023 Arbor Day "OSE Magic Tree Master – Support Your Green Forest Life"

According to the "World Forest Report" launched by the United Nations Food and Agriculture Organization (FAO) in 2022, about 31% of the global surface area was forest. From 1990 to 2020, due to human deforestation activities and the destruction of forest soil, a total of 420 million hectares of forest have disappeared. Although the trend of deforestation has slowed down, 10 million hectares of forest continued to disappear every year. Forest disappearance will accelerate problems such as global warming, climate change, and pose threats to the survival of animals and plants.

In 2023, OSE continued to join hands with Kaohsiung local community and the I Plant for Life corporation Aggregate, Kaohsiung, to hold DIY seed pot planting activities and lectures. At the activities, we also sent Taiwan's native tree saplings without charge to our supply chain and neighboring communities to promote greening. This year, we also held an invoice donation activity in exchange for tree saplings. With enthusiastic participations of our employees, a total of 350 saplings were distributed, and a seminar of planting was held three months later to track the health of the planted saplings, to cherish and protect the trees.



## 6.2 Youth Empowerment

OSE was deeply aware that the decline of birth and environmental changes have caused drastic changes in Taiwan's employment structure and brought about the impact of labor shortages. Therefore, we attached great importance to talent cultivation and formed university-industry collaboration, hoping to assist the youth in learning, job seeking, employment, and apply their academic knowledge to work, to let the youth smoothly integrate into their new jobs. We also continued to cooperate with peer group, government, and schools to jointly cultivate talents for Taiwan's high-tech industry as well as benefit society and local development.

### Career Coaching Program

In 2023, we cooperated with National Cheng Kung University to continue to promote the "Career Coaching Program". OSE provided lecturers and resources to hold a total of 8 classes for a total of 20 hours for the students, leading them to have better views on Taiwan's semiconductor industry. We also visited a total of 23 campus to make lectures, such as National University of Kaohsiung, National Kaohsiung University of Science and Technology, National Chiayi University, National Pingtung University, National Penghu University of Science and Technology, etc., to share industrial experience and outlook, close the student employability gap, get through the struggle of students couldn't apply what they've learned, provide comprehensive development opportunities and expand horizons through collaborations.



campus lectures



Collaborated with National Cheng Kung University "Career Coaching Program"



### YS Ironman Workplace Experience Program

To help the youth gain practical experience in the workplace and strengthen their skills, OSE joined the "YS Iron Man Workplace Experience Program" promoted by the Youth Salon of Kaohsiung-Pingtung-Penghu-Taitung Regional Branch of Workforce Development Agency of Ministry of Labor, aiming at those who aged 18-29 and met the following criteria, like students who were above junior year of college or fresh graduates, or people who were unemployment, etc. In 2023, a total of 7 trainees signed up for the workplace experience program, and 2 of them stood out from the final selection. They came to OSE's organizational development department and administrative services department respectively to have a week-long workplace experience and share of their findings in the end of the program.



## Contents

## Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

#### 6.1 Local Communities

#### 6.2 Youth Empowerment

## Appendix

### Resume Counseling Activities

In 2023, OSE continued to participate in the TOP Class Program of Career College of 104 Cooperation to assist job-seeking students in Kaohsiung in resume check-ups. A total of 2 sessions were held and 30 students were benefitted. OSE's colleagues served as interviewers, letting students to find out how to improve their resumes through mock interviews. OSE also participated in the 104 Cooperation's online resume counseling activity; 4 employees of OSE served as resume counselors to provide a total of 57 job seekers with free resume optimization suggestions. By providing free resume diagnosis, we hoped to assist people who were uncertain about their career directions, highlight their personal strengths, and give feedback from an employer's perspective, help job seekers seize career opportunities with our expertise, and build a virtuous cycle of employment.



### Diverse Career Experience Program

To provide the youth with opportunities of learning and employment, using their knowledges and skills, and integrating into their works, OSE abided by the government regulation "National Key Fields Industry-University Cooperation and Skilled Personnel Training" and has cooperated with the College of Semiconductor and Advanced Technology of National Sun Yat-sen University since 2022. A 10-year program has been promoted, with a total of 8 classes of students would be benefitted. Curriculum maps and research themes were formulated by both the college and OSE, and talent cultivation was also added in the program to make the youth know more about Taiwan's semiconductor industry. OSE has planned to train 10 students each year, and the number of beneficiaries was expected to reach 80 by the end of the program. It's expected that this would be the key to cultivating future talents of semiconductor industry, while attracting the youth to migrate to the south to balance Taiwan's regional development.



OSE continued to cooperate with the local employment station in Kaohsiung to help talents have a smooth career transition. In 2023, a total of 10 events were held, about 150 people participated the events, and a total of 127 resumes were collected. In addition, OSE organized a summer work-study program, with a total of 8 people joining in the program, providing an early work experience for our employees' children to make them get used to the workplace and develop their skills in advance.



### Industry-Academia Collaboration Program

Industry-Academia Collaboration Program

OSE continued to work with peer group, government, and academia to promote programs to cultivate future talents. The implementations in 2023 were as follows:

1. A total of 88 local college students were trained in OSE from 2019 to 2024. 10 students were still in training and a total of 45 students have completed the training, with a retention rate of 60% after graduation.
2. A total of 129 high school overseas students were trained in OSE from 2018 to 2023. 36 students were still in training and a total of 64 students have completed the training, with a retention rate of 66% after graduation. The students mainly came from Vietnam, Indonesia, Malaysia, Thailand, etc. From 2024, it's expected that each year would have 24 students who accept to be trained.
3. A total of 389 university overseas students were trained in OSE from 2014 to 2023. 97 students were still in training and a total of 165 students have completed the training, with a retention rate of 90% after graduation. The students mainly came from Vietnam, Indonesia, Malaysia, Thailand, Myanmar, etc., and the program was still going.
4. Industry-Academia Collaboration Program 2.0: We applied for the program in 2022, and the number of students expected to be trained would reach 120 from 2023 to 2026.



OSE actively recruited young students from various channels. We aimed to provide the professional training programs, and actively retained talents after graduation. We also supported the government's New Southbound Policy, did our part for the good of our country, society, and the people, seeking mutual benefit, and establishing an enterprise that thrived with the locals and communities.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

# Appendix I GRI Standard Index

Topic	Disclosure		Page	Corresponding Chapter
GRI 2: General Disclosures 2021	The organization and its reporting practices			
	2-1	Organizational details	8	1.1 About OSE
	2-2	Entities included in the organization's sustainability reporting	3	About the Report
	2-3	Reporting period, frequency and contact point	3	About the Report
	2-4	Restatements of information	3	About the Report
	2-5	External assurance	3	About the Report
	Activities and workers			
	2-6	Activities, value chain and other business relationships	10	1.1 About OSE
	2-7	Employees	88、89	5.1 Talent Sustainability
	2-8	Workers who are not employees	88、89	5.1 Talent Sustainability
	Governance			
	2-9	Governance structure and composition	29、30	2.1 Corporate Governance
	2-10	Nomination and selection of the highest governance body	31	2.1 Corporate Governance
	2-11	Chair of the highest governance body	32	2.1 Corporate Governance
	2-12	Role of the highest governance body in overseeing the management of impacts	29	2.1 Corporate Governance
	2-13	Delegation of responsibility for managing impacts	12、13	1.2 Implementing Sustainability
	2-14	Role of the highest governance body in sustainability reporting	12、13	1.2 Implementing Sustainability
	2-15	Conflicts of interest	32	2.1 Corporate Governance
	2-16	Communication of critical concerns	13	1.2 Implementing Sustainability
	2-17	Collective knowledge of the highest governance body	32、33	2.1 Corporate Governance
2-18	Evaluation of the performance of the highest governance body	34	2.1 Corporate Governance	
2-19	Remuneration policies	35	2.1 Corporate Governance	
2-20	Process to determine remuneration	35	2.1 Corporate Governance	

Topic	Disclosure		Page	Corresponding Chapter
GRI 2: General Disclosures 2021	2-21	Annual total compensation ratio	35	2.1 Corporate Governance
	Strategy, policies and practices			
	2-22	Statement on sustainable development strategy	4	A Message from the Chairman
	2-23	Policy commitments	27 43 52 55 64 76 81 86 106	2.1 Corporate Governance
	2-24	Embedding policy commitments		2.4 Risk Management and Legal Compliance
				3.1 Environment Responsibility and Commitment
	2-25	Processes to remediate negative impacts		3.2 Climate Change and GHG Management
				3.3 Water Resources Management
				4.2 Customer Relationship Management
				4.4 Innovative Research and Development
				5.1 Talent Sustainability
			5.4 Occupational Health and Safety	
	2-26	Mechanisms for seeking advice and raising concerns	38 、 40	2.2 Ethical Operations
	2-27	Compliance with laws and regulations	38 、 40 43 、 49	2.2 Ethical Operations 2.4 Risk Management and Legal Compliance
	2-28	Membership associations	11 、 12	1.1 About OSE
Stakeholder engagement				
2-29	Approach to stakeholder engagement	18~21	1.3 Stakeholder Engagement and Materiality Analysis	
2-30	Collective bargaining agreements	92 、 94	5.2 Friendly Workplace	
GRI 3: Material Topics 2021	3-1	Process to determine material topics	22	1.3 Stakeholder Engagement and Materiality Analysis
	3-2	List of material topics	24	1.3 Stakeholder Engagement and Materiality Analysis
Material topics				
Corporate governance				
GRI 3: Material Topics 2021	3-3	Management of material topics	27	2.1 Corporate Governance
Risk management and legal compliance				
GRI 3: Material Topics 2021	3-3	Management of material topics	43	2.4 Risk Management and Legal Compliance
OSE topics	Risk management		44	2.4 Risk Management and Legal Compliance

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

Topic	Disclosure	Page	Corresponding Chapter
<b>Environmental policy and management</b>			
GRI 3: Material Topics 2021	3-3 Management of material topics	52	3.1 Environment Responsibility and Commitment
OSE topics	Environmental policy and management	54	3.1 Environment Responsibility and Commitment
<b>Response to climate change and GHG management</b>			
GRI 3: Material Topics 2021	3-3 Management of material topics	55	3.2 Climate Change and GHG Management
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	57~59	3.2 Climate Change and GHG Management
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	60	3.2 Climate Change and GHG Management
	305-2 Energy indirect (Scope 2) GHG emissions	60	3.2 Climate Change and GHG Management
	305-3 Other indirect (Scope 3) GHG emissions	60	3.2 Climate Change and GHG Management
	305-4 GHG emissions intensity	60	3.2 Climate Change and GHG Management
	305-5 Reduction of GHG emissions	60、63	3.2 Climate Change and GHG Management
<b>Water resource management</b>			
GRI 3: Material Topics 2021	3-3 Management of material topics	64	3.3 Water Resources Management
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	64~66	3.3 Water Resources Management
	303-2 Management of water discharge-related impacts	64~66	3.3 Water Resources Management
	303-3 Water withdrawal	65	3.3 Water Resources Management
	303-4 Water discharge	65	3.3 Water Resources Management
	303-5 Water consumption	65	3.3 Water Resources Management
<b>Customer relationship management</b>			
GRI 3: Material Topics 2021	3-3 Management of material topics	76	4.2 Customer Relationship Management
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	78	4.2 Customer Relationship Management

Topic	Disclosure	Page	Corresponding Chapter
<b>Research and innovation</b>			
GRI 3: Material Topics 2021	3-3 Management of material topics	81	4.4 Innovative Research and Development
OSE topics	Management of material topics	82	4.4 Innovative Research and Development
<b>Talent Sustainability</b>			
GRI 3: Material Topics 2021	3-3 Management of material topics	86	5.1 Talent Sustainability
GRI 201: Economic Performance 2016	201-3 Defined benefit plan obligations and other retirement plans	94~96	5.2 Friendly Workplace
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	90	5.1 Talent Sustainability
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	94~95	5.2 Friendly Workplace
	401-3 Parental leave	94、97	5.2 Friendly Workplace
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	88	5.1 Talent Sustainability
	405-2 Ratio of basic salary and remuneration of women to men	98	5.2 Friendly Workplace
<b>Employee Health and Safety</b>			
GRI 3: Material Topics 2021	3-3 Management of material topics	106	5.4 Occupational Health and Safety
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	108	5.4 Occupational Health and Safety
	403-2 Hazard identification, risk assessment, and incident investigation	109~110	5.4 Occupational Health and Safety
	403-3 Occupational health services	113	5.4 Occupational Health and Safety
	403-4 Worker participation, consultation, and communication on occupational health and safety	114	5.4 Occupational Health and Safety
	403-5 Worker training on occupational health and safety	112	5.4 Occupational Health and Safety
	403-6 Promotion of worker health	113	5.4 Occupational Health and Safety
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	111	5.4 Occupational Health and Safety
	403-8 Workers covered by an occupational health and safety management system	108	5.4 Occupational Health and Safety
	403-9 Work-related injuries	111	5.4 Occupational Health and Safety
	403-10 Work-related ill health	111	5.4 Occupational Health and Safety

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

Topic	Disclosure	Page	Corresponding Chapter
<b>Non-material topics</b>			
<b>Ethical operations</b>			
<b>GRI 205: Anti-corruption 2016</b>	205-1	Operations assessed for risks related to corruption	-
	205-2	Communication and training about anti-corruption policies and procedures	38
	205-3	Confirmed incidents of corruption and actions taken	38 ~ 40
<b>GRI 206: Anti-competitive Behavior 2016</b>	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	38 ~ 40
<b>Economic Performance</b>			
<b>GRI 201: Economic Performance 2016</b>	201-1	Direct economic value generated and distributed	41
	201-4	Financial assistance received from government	42
<b>Supply Chain Sustainability</b>			
<b>GRI 204: Procurement Practices 2016</b>	204-1	Proportion of spending on local suppliers	72
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1	New suppliers that were screened using environmental criteria	71
	308-2	Negative environmental impacts in the supply chain and actions taken	71
<b>GRI 414: Supplier Social Assessment 2016</b>	414-1	New suppliers that were screened using social criteria	71
	414-2	Negative social impacts in the supply chain and actions taken	71
<b>Energy Management</b>			
<b>GRI 302: Energy 2016</b>	302-1	Energy consumption within the organization	62
	302-2	Energy consumption outside of the organization	62
	302-3	Energy intensity	62
	302-4	Reduction of energy consumption	62 ~ 63

Topic	Disclosure	Page	Corresponding Chapter
<b>Waste Management</b>			
<b>GRI 306: Waste 2020</b>	306-1	Waste generation and significant waste-related impacts	67
	306-2	Management of significant waste-related impacts	67
	306-3	Waste generated	67
	306-4	Waste diverted from disposal	67
	306-5	Waste directed to disposal	67
<b>Product quality and safety</b>			
<b>GRI 416: Customer Health and Safety 2016</b>	416-1	Assessment of the health and safety impacts of product and service categories	80 ~ 81
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	80 ~ 81
<b>Talent development and education</b>			
<b>GRI 404: Training and Education 2016</b>	404-1	Average hours of training per year per employee	99
	404-2	Programs for upgrading employee skills and transition assistance programs	99
	404-3	Percentage of employees receiving regular performance and career development reviews	105
<b>Human rights management</b>			
<b>GRI 406: Non-discrimination 2016</b>	406-1	Incidents of discrimination and corrective actions taken	92
<b>GRI 408: Child Labor 2016</b>	408-1	Child labor	92
<b>GRI 409: Forced or Compulsory Labor</b>	2016	Operations and suppliers at significant risk for incidents of forced or compulsory labor	92
<b>Community engagement and philanthropic efforts</b>			
<b>GRI 413: Local Communities 2016</b>	413-1	Operations with local community engagement, impact assessments, and development programs	116
	413-2	Operations with significant actual and potential negative impacts on local communities	116

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

# Appendix II SASB Index

Topic	Code	Accounting Metric	Corresponding Chapter	Page
Greenhouse Gas Emissions	TC-SC-110a.1	<ul style="list-style-type: none"> <li>Gross global Scope 1 emissions</li> <li>Amount of total emissions from perfluorinated compounds</li> </ul>	3.2 Climate Change and GHG Management	60
	TC-SC-110a.2	<ul style="list-style-type: none"> <li>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</li> </ul>	3.1 Environment Responsibility and Commitment	52
Energy management in manufacturing	TC-SC-130a.1	<ul style="list-style-type: none"> <li>Total energy consumed</li> <li>Percentage grid electricity</li> <li>Percentage renewable</li> </ul>	3.2 Climate Change and GHG Management	62
Water resource management	TC-SC-140a.1	<ul style="list-style-type: none"> <li>Total water withdrawn</li> <li>Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress</li> </ul>	3.3 Water Resources Management	64
Waste Management	TC-SC-150a.1	<ul style="list-style-type: none"> <li>Amount of hazardous waste from manufacturing, percentage recycled</li> </ul>	3.4 Waste Management	67
Employee Health and Safety	TC-SC-320a.1	<ul style="list-style-type: none"> <li>Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards</li> </ul>	5.4 Occupational Health and Safety	106
	TC-SC-320a.2	<ul style="list-style-type: none"> <li>Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations</li> </ul>	5.4 Occupational Health and Safety	106
Recruiting & managing a global & skilled workforce	TC-SC-330a.1	<ul style="list-style-type: none"> <li>Percentage of employees that are (1) foreign nationals and (2) located offshore</li> </ul>	5.1 Talent Sustainability	88
Product Lifecycle Management	TC-SC-410a.1	<ul style="list-style-type: none"> <li>Percentage of products by revenue that contain IEC 62474 declarable substances</li> </ul>	4.3 Product Quality and Safety	80 ~ 81
	TC-SC-410a.2	<ul style="list-style-type: none"> <li>Processor energy efficiency at a system level for: (1) servers, (2) desktops, and (3) laptops</li> </ul>	Not applicable	-
Materials Sourcing	TC-SC-440a.1	<ul style="list-style-type: none"> <li>Description of the management of risks associated with the use of critical materials</li> </ul>	4.3 Product Quality and Safety	72
Intellectual Property Protection & Competitive Behavior	TC-SC-520a.1	<ul style="list-style-type: none"> <li>Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations</li> </ul>	2.2 Ethical Operations	40

## Contents

### Foreword

### 1. Operations and Governance

### 2. Honesty and Integrity

### 3. Environmental Sustainability

### 4. Supply Chain and Product Management

### 5. Sustainable Talent Management

### 6. Inclusive Community

## Appendix

### Activity Metric

Code	Accounting Metric	Corresponding Chapter	Page
TC-SC-000.A	Total production	OSE's product output in 2023 was 938,488 thousand pieces of plastic integrated circuits, 93,885 thousand pieces of EMS product and others respectively. Detail information was disclosed in chapter 4.3.1.	79
TC-SC-000.B	Percentage of production from owned facilities	Nearly 100% of OSE products were produced in own factories.	79

## Appendix III TWSE Industrial Sustainability Disclosure Index- Semiconductor

Code	Disclosure	Category	Unit	Page
I	Total energy consumed, percentage purchased, and percentage renewable	Qualitative	<ul style="list-style-type: none"> <li>Total energy consumed : 612,175.06 GJ</li> <li>Percentage of externally purchased power: 99.8%</li> <li>Renewable energy usage rate: 0.1%</li> </ul>	62
II	Total water withdrawn and total water consumed	Qualitative	<ul style="list-style-type: none"> <li>Total water withdrawal: 1,437.90 m<sup>3</sup></li> <li>Total water consumption: 380.27 m<sup>3</sup></li> </ul>	65
III	Weight of hazardous waste generated and percentage recycled	Qualitative	<ul style="list-style-type: none"> <li>Weight of all hazardous wastes generated: 137.3 tons</li> <li>Recycling percentage of all hazardous wastes generated : 4.8%</li> </ul>	68
IV	Category of work-related disasters, number of people, and rate	Qualitative	<ul style="list-style-type: none"> <li>Severe occupational accident: 1 case</li> <li>Disabling frequency rate (FR): 0.86</li> <li>Disabling injury severity rate (SR): 27.6</li> </ul>	111
V	Disclosure of product life cycle management: Weight of products scrapped and electronic waste and percentage recycled	Qualitative	Not applicable because OSE didn't sell products to end customer directly.	
VI	Description of the management of risk associated with the use of critical materials	Quantitative	Refer to 4.1 Sustainable Supply Chain	71
VII	Total amount of monetary losses as a result of litigations associated with anticompetitive behavior regulations	Qualitative	NT\$ 0	49
VIII	Production volume of primary products by product type	Qualitative	Plastic IC : 938,488 (thousand pcs) EMS : 93,885 (thousand pcs) Other : 492,242 (thousand pcs)	79

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

# Appendix IV Taiwan Climate Information Disclosure Index for Listed Companies

Item	Disclosures	Page	Corresponding Chapter
1	Describe the supervision and governance of climate-related risks and opportunities by the Board of Directors and management.	56	3.2.1 Task Force on Climate-Related Financial Disclosures (TCFD)
2	Describe the impacts of the identified climate risk and opportunity on the company's business, strategy, and finance (short-, mid-, and long-term).	56-59	
3	Describe the impact to finance by extreme climate events and transition actions.	57-59	
4	Describe the integration of the climate identification, assessment, and management procedures with the overall risk management system.	56-57	
5	If scenario analysis is used to assess the resilience for climate change risk, explain the scenario, parameters, assumptions, and factor analysis used and the major financial impacts.	56-59	
6	If there is a transition plan devised in response to managing climate-related risks, explain the contents of the plan, and the indicators and targets used for the identification and management of physical and transition risks.	56	
7	If internal carbon pricing is used as a planning tool, an explanation shall be provided on the basis for the price establishment.	-	OSE hasn't planned for internal carbon pricing yet.
8	If there are climate-related targets established, an explanation shall be provided on the covered activities, greenhouse gas (GHG) emission scope, planning period, and annual progress. If carbon offsets and renewable energy certificates (REC) are used to achieve related targets, an explanation shall be provided on the source and quantity of the carbon credit for carbon offset or the amount of RECs.	55 56 60	3.2.1 Task Force on Climate-Related Financial Disclosures (TCFD) 3.2.2 Greenhouse Gas Management
9	Greenhouse gas (GHG) inventory and assurance status	60-61	3.2.2 Greenhouse Gas Management

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

# Appendix V Summary of Selected Subject Matter Information for Chinese Report

No.	Subject Matter Assurance Information	Page	Applicable Criteria
1	In 2023, the rate of foreign employees accounting for all employees was 28.53%.	88	Divided the number of foreign employees by all employees in 2023. Note: The data base date was 2023/12/31
2	In 2023, the number and rate of fatalities were 0 cases and 0 respectively; number of serious occupational injuries and rate of severe occupational injuries were 1 case and 0.1 respectively; number of disabling injuries and disabling frequency rate were 9 cases and 0.86 respectively.	111	According to the 2023 statistics of employees <sup>note</sup> , the number of deaths caused by occupational injuries, the number of serious injuries, the number of occupational injuries (disabling injuries), the ratio of the number of deaths caused by occupational injuries to the total number of working hours multiplied by one million working hours, The ratio of the number of serious injuries caused by occupational injuries to the total number of working hours multiplied by one million working hours, and the ratio of the number of occupational injuries (disabling injuries) to the total number of working hours multiplied by one million working hours. Note: Data on employee occupational injuries has reported by OSE in 2023 to Occupational Safety and Health Administration of the Ministry of Labor's online system.
3	In 2023, the total treatment amount of waste was 137.3 tons.	68	Total hazardous waste disposal volume in 2023 based on OSE's statistics <sup>note</sup> . Note: Hazardous waste data has been reported by OSE to the Executive Yuan's online system in 2023.
4	In 2023, the total number of people participating in security training in 2023 is 4,642, and the total training hours are 17,078 hours	102	n 2023, the total number of employees who completed information security training in accordance with the company's internal regulations and the summary of the number of training time.
5	In 2023, a total of 60 new OSE suppliers signed the "Declaration of Conformity for Honest and Code of Conduct".	74	Number and percentage of new OSE suppliers <sup>note 1</sup> that signed the "Declaration of Conformity for Honest and Code of Conduct" or added relevant terms <sup>note 2</sup> into the orders or agreements in 2023. Note 1: The data included new material suppliers from 2 major production group of OSE: IC & EMS. Note 2: The transaction terms of the purchase order indicated that if the supplier replied with a transaction date, they were automatically regarded they agreed to follow OSE integrity commitments and therefore must abide by them.

## Contents

## Foreword

## 1. Operations and Governance

## 2. Honesty and Integrity

## 3. Environmental Sustainability

## 4. Supply Chain and Product Management

## 5. Sustainable Talent Management

## 6. Inclusive Community

## Appendix

# Appendix VI Independent Limited Assurance Report for Chinese Report



### 會計師有限確信報告

發文文號：資會綜字第 23011957 號

華泰電子股份有限公司 公鑒：

本會計師受華泰電子股份有限公司（以下簡稱「貴公司」）之委任，對「貴公司選定西元 2023 年度永續報告書所報導之關鍵績效指標（以下簡稱「所選定之關鍵績效指標」）執行確信程序，本會計師業已確信竣事，並依據結果出具有限確信報告。

#### 標的資訊與適用基準

本確信案件之標的資訊係「貴公司上開所選定之關鍵績效指標，有關所選定之關鍵績效指標及其適用基準詳列於「貴公司西元 2023 年度永續報告書第 127 頁之「確信項目彙總表」。前述所選定之關鍵績效指標之報導範圍業於永續報告書第 3 頁之「報告書邊界與範疇」段落說明。

上開適用基準係為臺灣證券交易所「上市公司編製與申報永續報告書作業辦法」與相關問答及有關法令之規定、全球永續性報告協會(Global Reporting Initiatives, GRI)發布之最新版 GRI 準則(GRI Standards)與行業補充指南，以及「貴公司依行業特性與其所選定之關鍵績效指標採或自行設計其他基準。

#### 管理階層之責任

貴公司管理階層之責任係依照適用基準編製永續報告書所選定之關鍵績效指標，且設計、付諸實行及維持與所選定之關鍵績效指標編製有關之內部控制，以確保所選定之關鍵績效指標未存有導因於舞弊或錯誤之重大不實表達。

#### 先天限制

本業諸多確信項目涉及非財務資訊，相較於財務資訊之確信受有更高先天性之限制。對於資料之相關性、重大性及正確性等之質性解釋，則更取決於個別之假設與判斷。

#### 會計師之獨立性及品質管理

本會計師及本事務所已遵循會計師職業道德規範有關獨立性及其他道德規範之規定，該規範之基本原則為正直、公正客觀、專業能力及專業上應有之注意、保密及專業行為。

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### 會計師之責任

本會計師之責任係依照確信準則 3000 號「非屬歷史性財務資訊查核或核閱之確信案件」規劃及執行有限確信案件，基於所執行之程序及所獲取之證據，對第一段所述「貴公司所選定之關鍵績效指標是否未存有重大不實表達取得有限確信，並作成有限確信之結論。

依確信準則 3000 號之規定，本有限確信案件工作包括評估「貴公司採用適用基準編製永續報告書所選定之關鍵績效指標之妥適性、評估所選定之關鍵績效指標導因於舞弊或錯誤之重大不實表達風險、依情況對所評估風險作出必要之因應，以及評估所選定之關鍵績效指標之整體表達。有關風險評估程序（包括對內部控制之瞭解）及因應所評估風險之程序，有限確信案件之範圍明顯小於合理確信案件。

本會計師對第一段所述「貴公司所選定之關鍵績效指標所執行之程序係基於專業判斷，該等程序包括查詢、對流程之觀察、文件之檢查是否適當之評估，以及與相關記錄之核對或調節。

基於本案件情況，本會計師於執行上述程序時：

- 已對參與編製所選定之關鍵績效指標之相關人員進行訪談，以瞭解編製前述資訊之流程、所應用之資訊系統，以及攸關之內部控制，以辨認重大不實表達之領域。
- 基於對上述事項之瞭解及所辨認之領域，已對所選定之關鍵績效指標選取樣本進行包括查詢、觀察、檢查等測試，以取得有限確信之證據。

相較於合理確信案件，有限確信案件所執行程序之性質及時間不同，其範圍亦較小，故於有限確信案件所取得之確信程度亦明顯低於合理確信案件中取得者。因此，本會計師不對「貴公司所選定之關鍵績效指標在所有重大方面，是否依照適用基準編製，表示合理確信之意見。

此報告不對西元 2023 年度永續報告書整體及其相關內部控制設計或執行之有效性提供任何確信，另外，西元 2023 年度永續報告書中屬西元 2022 年 12 月 31 日及更早期間之資訊未經本會計師確信。



### 有限確信之結論

依據所執行之程序與所獲取之證據，本會計師並未發現第一段所述「貴公司所選定之關鍵績效指標在所有重大方面有未依照適用基準編製之情事。

### 其它事項

貴公司網站之維護係「貴公司管理階層之責任，對於確信報告於「貴公司網站公告後任何所選定之關鍵績效指標或適用基準之變更，本會計師將不負就該等資訊重新執行確信工作之責任。

資誠聯合會計師事務所

會計師 張瑞婷

西元 2024 年 8 月 7 日



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