

The Advanced Semiconductor Engineering Group
2012 Corporate Social Responsibility Report

2012 Corporate Social Responsibility Report

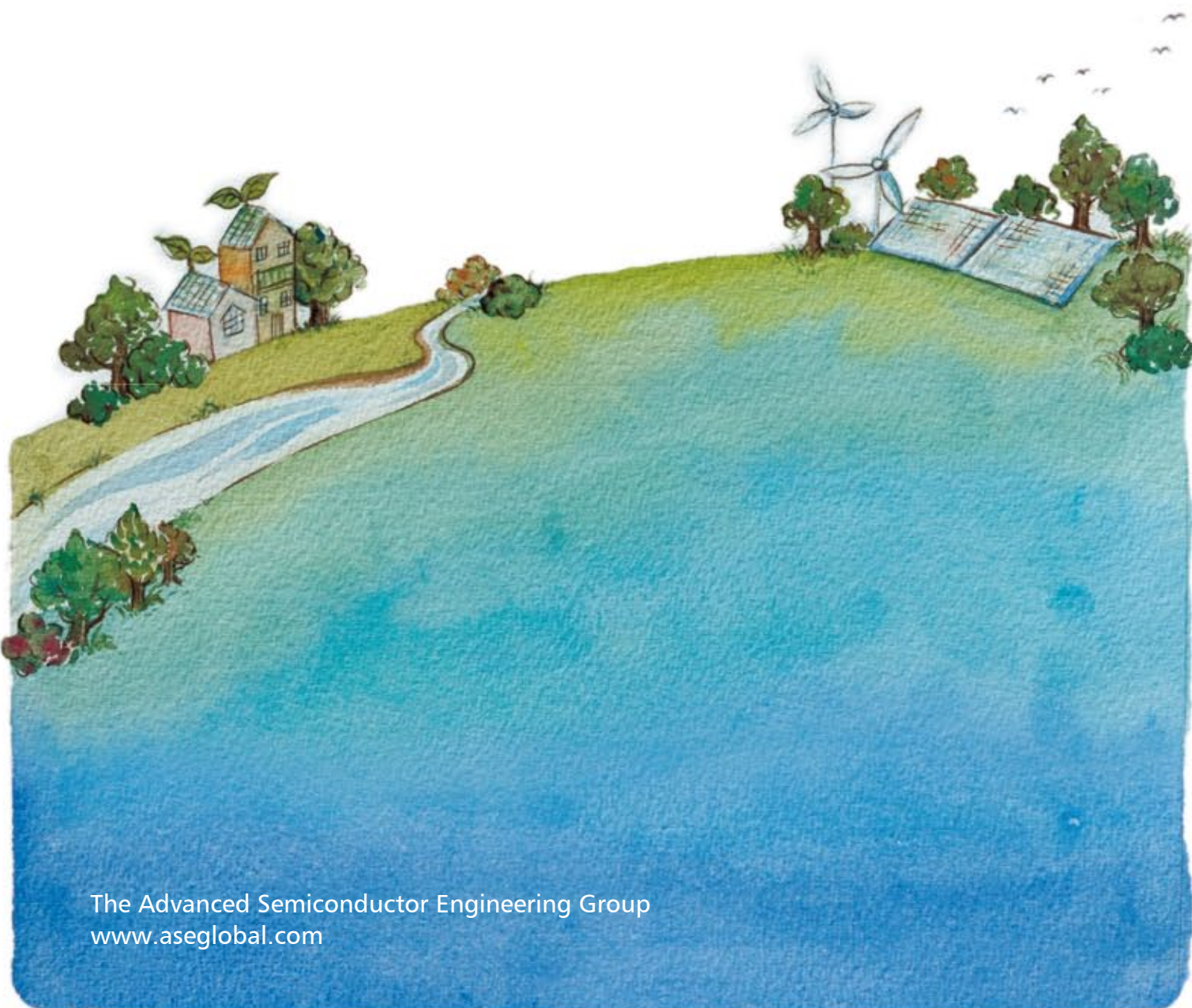


Table of Contents



	03 ABOUT OUR REPORTING
	05 MANAGEMENT VISION AND CSR PHILOSOPHY
	05 Letter from the Chairman
	06 Philosophy and Commitment to Sustainable Development
	10 ABOUT OUR COMPANY
	10 Our Services
	12 Major Products and Technologies
	14 Management and Corporate Governance
	16 Financial Results
	17 Management and Evaluation of Operational Risks
	21 COMMUNICATION AND ISSUE MANAGEMENT
	21 Identification of Issues and Communication with Stakeholders
	23 Participation in External Organizations
	25 ENVIRONMENTAL SUSTAINABILITY
	25 Green Enterprise
	26 Environmental Protection
	29 Energy Resource Management and Conservation
	32 Carbon Management
	36 Green Products and Eco-design
	37 Social Responsibility/Environmental Accounting
	41 Green Factory
	43 EMPLOYEE CARE
	43 Employment Status
	50 Career Development and Training
	54 Employee Welfare
	56 Safety and Health Management
	58 Medical Care and Health Promotion
	61 CUSTOMER SERVICE
	61 ASE Online Service Platform
	61 Customer Satisfaction and Management Approach
	62 Customer Intellectual Property and Information Confidentiality
	63 SUPPLIER COMMUNICATION AND SUPPLY CHAIN MANAGEMENT
	63 Supplier Management
	64 Green Supply Chain Management
	66 Contractor Management
	67 SOCIAL PARTICIPATION
	67 Education-industry Collaboration
	68 Community Engagement and Contribution
	69 Charity and Social Work
	71 APPENDIX
	71 ASE Group – Corporate Milestones
	73 2008-2012 Awards and Recognition from Government and National/International Authoritative Bodies
	75 Third Party Audit Report
	77 Global Sustainability Report Indicators GRI G3.1
	83 List of topics and references corresponding to ISO 26000 Guidance on Social Responsibility
	85 References corresponding to the United Nations Global Compact Principles
	86 ASE Worldwide Directory



ABOUT OUR REPORTING

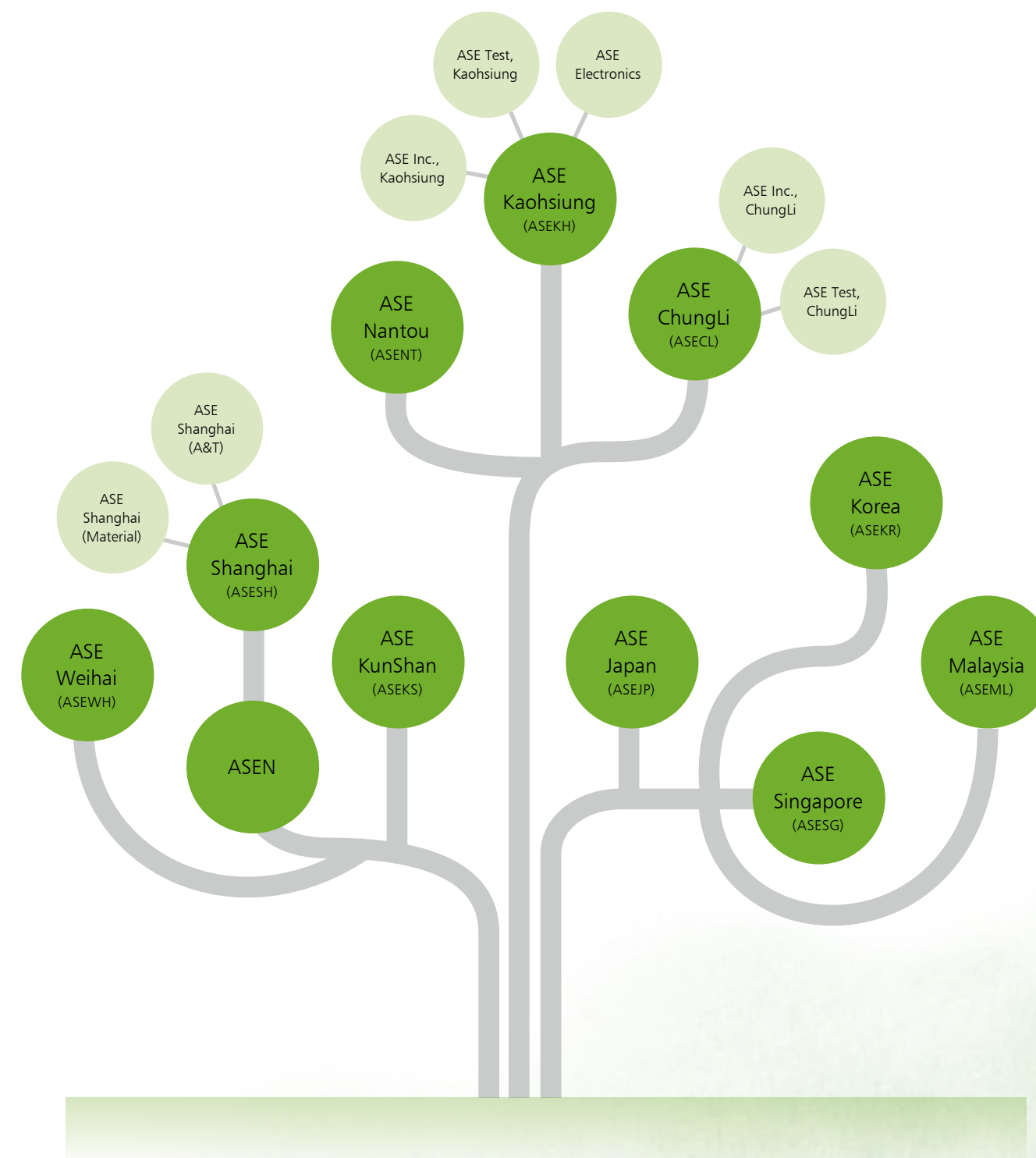
As a socially responsible corporate citizen, ASE has taken proactive steps to ensure compliance to the highest standards of conducting our business both professionally and ethically. We believe that the sustainable development of an enterprise and the realization of its social responsibilities are important strategies to ensure the long term success of our company.

Our CSR report, released annually, has received positive reviews from various industries including the Taiwan Institute for Sustainable Energy (TAISE). In 2012, ASE was placed 3rd in the 'Taiwan Corporate Sustainability Report' award from TAISE.

This report is available in both Chinese and English. The complete electronic version may be downloaded from our website, <http://www.aseglobal.com/>. If you have any comments or suggestions, contact us at ASE_CSR@aseglobal.com.

Scope

This report releases information from January 1 to December 31, 2012. As ASE operates in many countries and regions worldwide, our report has included ASE factories in Kaohsiung, Chungli, Nantou, Taiwan; Shanghai, Kunshan, Suzhou, Weihai, China; Yamagata, Japan; Paju, Korea, Penang, Malaysia; and Singapore. The report, however, excludes our sales, administrative and other offices located in North America, Europe and Asia.



Basis of Disclosure

Data contained in this report are reflective of the annual information reported by the ASE Group. The exchange rate is as of December 31, 2012. This report was prepared in accordance with the Global Reporting Initiative (GRI) G3 Guidelines (GRI G3.1) and the Accountability Principle Standards (AA1000APS) published in 2008. The figures in this report were computed and disclosed in accordance with the GRI indicators. The report had been assessed by a third-party agent as meeting the "G3.1 A+" Application Level. Please refer to the GRI G3.1 Content Index for further details.



MANAGEMENT VISION AND CSR PHILOSOPHY



Letter from the Chairman

Corporate social responsibility lies in the conscientious application of the resources in places where a business operates, and the expansion of its influence in order to truly achieve corporate commitment for sustainable development. The ASE Group is strategically entrenched in Taiwan while at the same time, establishing its global reach worldwide. At each of ASE's worldwide location, the company integrates and maximizes local human, material and geographical resources to ensure sustainability and preserve social and environmental harmony.

Given the macroeconomic and industry challenges in 2012, the company still managed to record a 5% year on year revenue growth. Looking forward to 2013, where smart mobile devices dominate, ASE continues to offer advanced product technologies and cost-effective manufacturing services to meet our customers' dynamic demands and our penetration into new markets. We continue to focus on eco-designs by improving our green product designs and manufacturing methodologies in order to reduce harmful environmental effects in the product life cycle.

On preserving the eco-environment, ASE's offices and manufacturing buildings and their surrounding facilities are all designed and constructed with a view of integrating technology and green concepts. We aim to provide our employees a safe and comfortable working environment. Our new constructions in ASE Kaohsiung, Chungli, Taiwan; and Shanghai, China are built under strict green guidelines. In 2012, building K12 at the ASE Kaohsiung facility was accorded the Taiwan EEWH diamond certification, further demonstrating our commitment to green buildings. We are currently planning for LEED platinum certification in 2013.

As a leader in the semiconductor assembly and test industry, we are committed to our customers, shareholders, employees and suppliers to uphold corporate social responsibility across our entire organization. We seek to inculcate a culture of social responsibility and consciousness on ethical business practices and employee welfare, building an eco-friendly workplace and producing environmentally friendly products. ASE aims to be a leading example in operating a business not only for profit but more importantly, for the betterment of its people, society and the environment.

Jason C.S. Chang
Chairman and CEO

Richard H.P. Chang
Vice Chairman and President





Philosophy and Commitment to Sustainable Development



Operational Risk Assessment

- Effective operation management, precise risk control and crisis response
- Early identification of risk and opportunity factors

Communication and Project Management

- Focus on communication with stakeholders and clear direction provided for the Implementation of key projects
- Improve channels of communication and cooperation with stakeholders

Green Enterprise

- Green supply chain, green product, green enterprise

Environmental Protection

- Target “zero” waste and “zero” pollution, to protect the environment we are living in

Resource Management and Energy Conservation

- Incorporate ISO50001 standards to raise the energy and resource conservation level and improve green energy utilization
- Focus on internal environmental management; implementation of energy and resource management and conservation throughout the supply chain

Green Product

- Develop green products to meet customer requirements
- Rigorous inspection and evaluation to eliminate harmful substances; ensure the quality of green materials from suppliers
- Increase the adoption of green packaging materials and reduce wastage

Ecological Design

- Introduce environmentally friendly products
- Green products and green design will help reduce harmful impacts on the environment

Social responsibility / environmental accountability

- Make conscientious efforts to be responsible and accountable for environmental, social, health and safety matters

Greenhouse Gas Management & Verification

- To reduce the amount of greenhouse gas (GHG) emissions per unit of production by 10% in 2017 compared to 2007
- Support GHG management in the supply chain and carbon management in the entire industry
- Annual verification of GHG emission and evaluate gaps in the emission reduction targets
- Evaluate the progress of corporate targets for the improvement of gas management and integrate ISO14001 quality principles into daily operation and management
- Collaborate and support suppliers in the assessment of greenhouse gas emissions and raise the standards and competitiveness of green products

Green Factory

- Offices, factory buildings and their surroundings are designed and constructed in accordance to green standards, building an eco-system combining nature with technology

Employee Care

- To develop a corporate policy to protect the rights of employees and to provide for their welfare, and to create a safe and comfortable workplace environment.
- To increase employees’ awareness and competency in sustainable development issues such as environmental protection, safety, green products and social responsibility through effective use of training resources; to ensure the continued operation of the management system through regular communication and consultation with employees and their representatives.

Career Development and Training

- To enable each department to train and groom employees and enable them to exploit their full potential in their professional
- To establish comprehensive educational resources to meet the employee’s needs for lifelong learning

Employee Welfare

- ASE offers very competitive wages & benefits in line with the best industry practices
- To provide a comfortable workplace environment for the employees; and to be concerned about the well-being of them and their family

Safety and Health Management

- To provide employees a safe and healthy working environment that conforms to safety and health regulations

Medical Care and Health Promotion

- To provide employees with adequate medical and health benefits

Contractor Management

- Collaborate together as partners and work towards achieving ‘zero crisis’
- To lead in exemplifying ‘corporate social responsibility’

Supplier Management

- To support the economic development and growth of local suppliers.
- To create a green semiconductor supply chain cluster that will promote the sustainable development of the industry as a whole

Green Supply Chain

- To promote green products together with all participants in the supply chain and create a healthy and sustainable eco-environment
- By integrating closely the links within the supply chain, we aim to reduce the cost of operation and mitigate any supply risk

Our Sustainable Development Policy

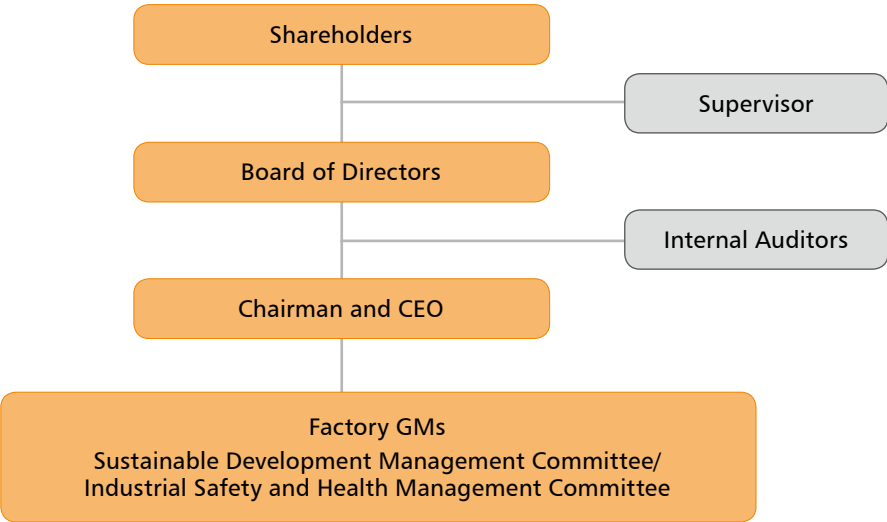
The ASE Group is fully committed to sustainable development. We aim to excel in operating performance, safety management, energy management and carbon management. By actively integrating the supply chain, developing and designing environmental-friendly green product/process, as well as contributing back to the society, we seek to satisfy the expectations of the company’s stakeholders.

Our Commitment

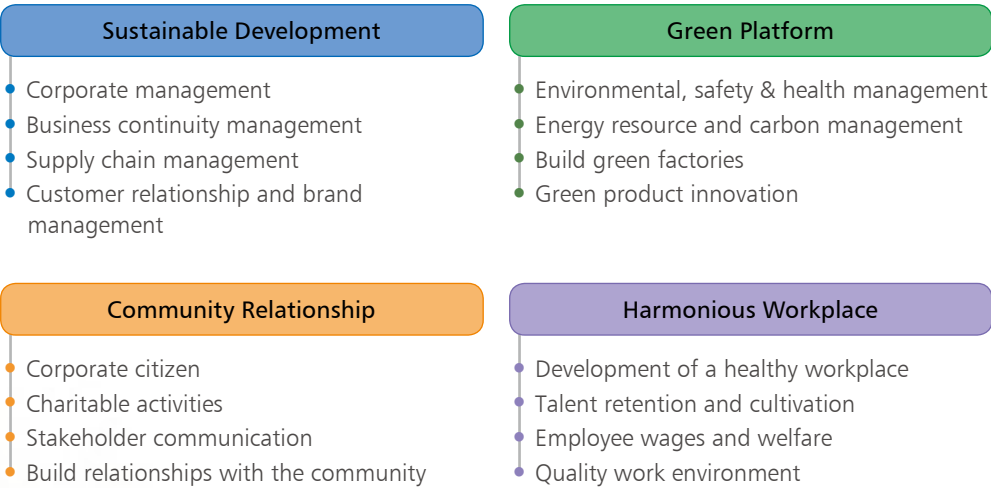
- Strictly comply with regulatory requirements on sustainable development and respect international guidelines and the corresponding interpretation.
- In the area of operational management, we uphold our corporate spirit of continuous introspection, proactivity, mutual trust and integrity. We stay flexible during operation and put stakeholders’ interests in first priority. We maintain strict confidentiality in any information received or exchanged during the course of business, in contract and agreement negotiation; comply with anti-corruption practices and effectively implement integrity ethics across the company
- In the area of safety management, we put in place measures to prevent accidents and mitigate risk exposures. We promote safety consciousness to all employees and conduct exercises to prepare ourselves in the event of a crisis. We ensure that ASE meets all regulated and legal safety requirements within the company
- In the area of environmental management, we introduce the concept of green design, green materials and green processes to create a diversified ecological space. By building a green environment and supply chain with low consumption of energy, resource conservation and zero pollution the associated environmental impacts of the products are effectively controlled and reduced.
- In the area of social responsibility, we uphold the principles of social fairness, justice, and moral goodness, and effectively integrate and utilize diversified social resources, care and assist the employees and communities.
- Effectively utilize educational and training resources to build a seamless communication platform, promoting awareness of sustainable development
- We continuously improve the sustainable development management mechanism to achieve management performance, prevent workplace accidents and occupation related illnesses, provide a comfortable and safe workplace, ensure all operational risks are under control safeguard the rights and interests of stakeholders.

Management Organization and Scope of Work

The organizational framework and scope of the ASE Group’s sustainable development committee are as follows:



Scope of work



ABOUT OUR COMPANY

The ASE Group, established in 1984, is the world's largest provider of outsourced semiconductor assembly and test services. Our services include front-end engineering test, wafer probe, back-end assembly and final testing of ICs (integrated chips) as well as board and system level solutions in electronic manufacturing services.



Our Services

IC services

- Assembly: IC package and module design, wafer bumping, IC packaging, multi-chip assembly, micro and hybrid module assembly
- Test: Engineering test, wafer probe and final test
- Material: Substrate design and manufacturing

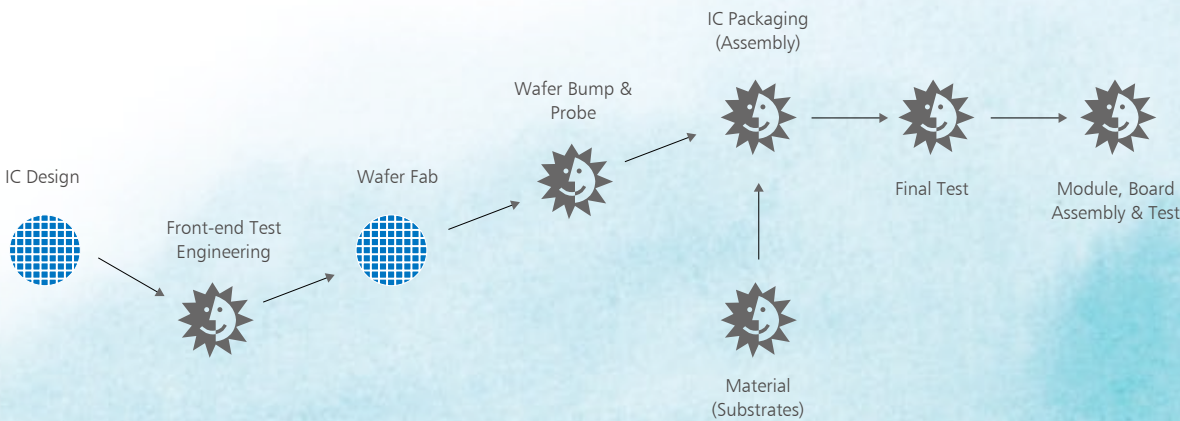
Board and System Level Services

Module-to-systems product offerings and design-to-distribution total solutions

The ASE Product Value Chain

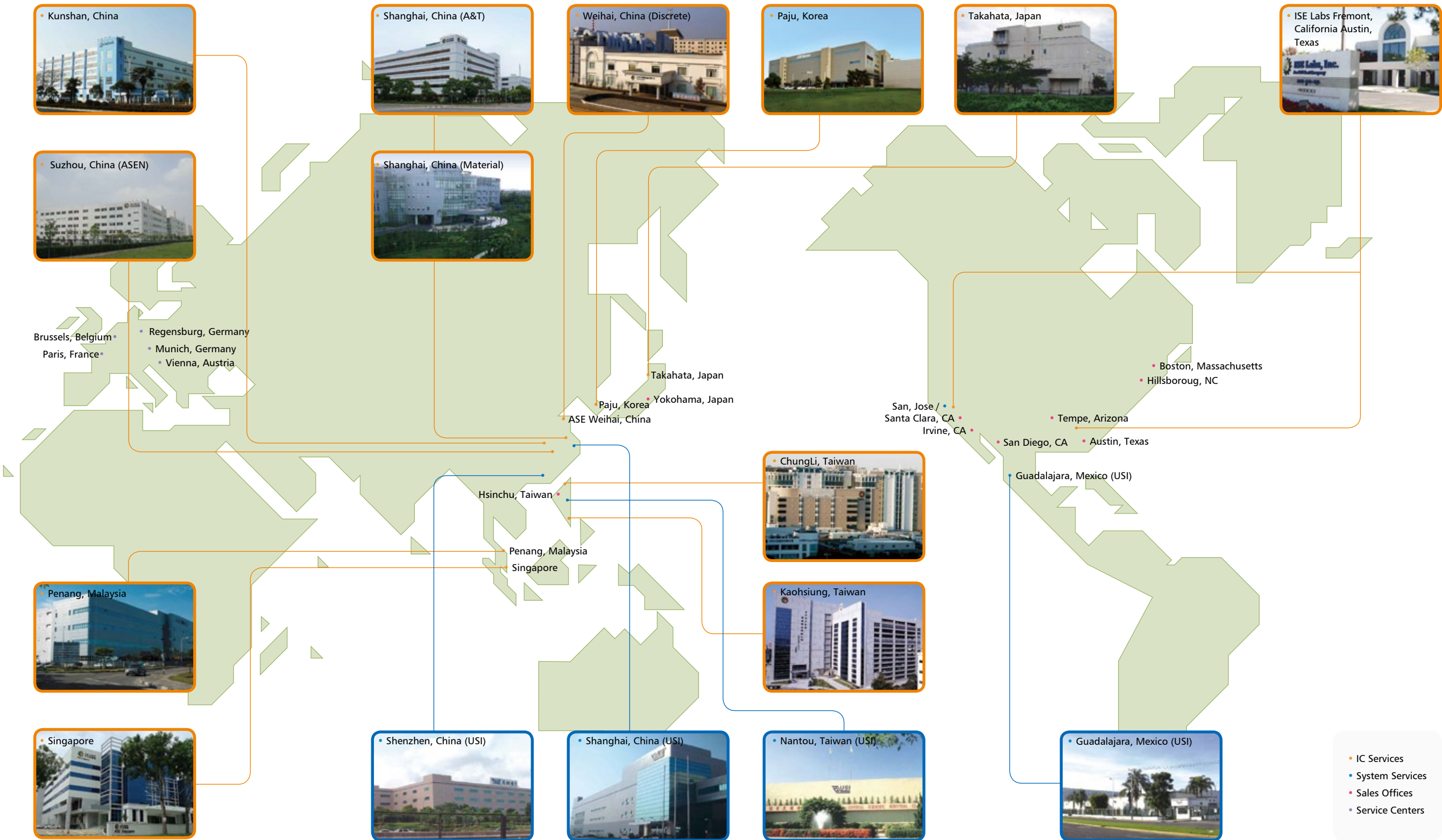
The scope and depth of ASE’s manufacturing value chain enables the company to provide complete semiconductor turnkey solutions. Services from engineering test, wafer probing, package design, substrate design and manufacturing, packaging, testing, and distribution are fully integrated onto a single supply chain.

With ASE’s total turnkey solutions, customers benefit from our ‘parallel manufacturing’ – a process whereby some stages of the manufacturing can be simultaneously performed, thereby shortening cycle time and creating better production yields.



Global operation

The ASE Group has a worldwide headcount of over 57,000 employees. Our sales and manufacturing facilities are strategically located worldwide including Taiwan, China, South Korea, Japan, Singapore, Malaysia, Mexico, North America and Europe.



- IC Services
- System Services
- Sales Offices
- Service Centers

Major Products and Services

The ASE Group provides integrated solutions including packaging, testing services, interconnect materials design and production capabilities that set the industry standards and lead and facilitate the industry trend towards outsourcing semiconductor manufacturing requirements.

We believe in investing in the research and development of cutting-edge semiconductor manufacturing process and technology. ASE’s total R&D expenditure in 2012 is NT\$6,165 million (around US\$205 million), about 4.7% of the annual revenue. Our R&D teams continuously develop frontier technologies and processes to meet customers’ demands for enhancement of product functions and cost reduction. We have registered numerous patents, which further enhanced our competitiveness in the high-end assembly and manufacturing process. We are proud to be the constant leader in the progress of R&D and the mass production of leading edge technologies. For instance, we stayed ahead of our peers in a wide array of technologies including copper (Cu) wire bonding, wafer bumping, flip chip, chip scale package (CSP), stacked die, system-in-package (SiP), optoelectronics packaging, green packaging, and our integrated service for final packaging and test of 12-inch wafers. We create overall efficiencies, performance and cost benefits for our customers through innovation and fast adoption of proven technologies in volume production. For detailed product and technology information, please visit our website <http://www.aseglobal.com>.

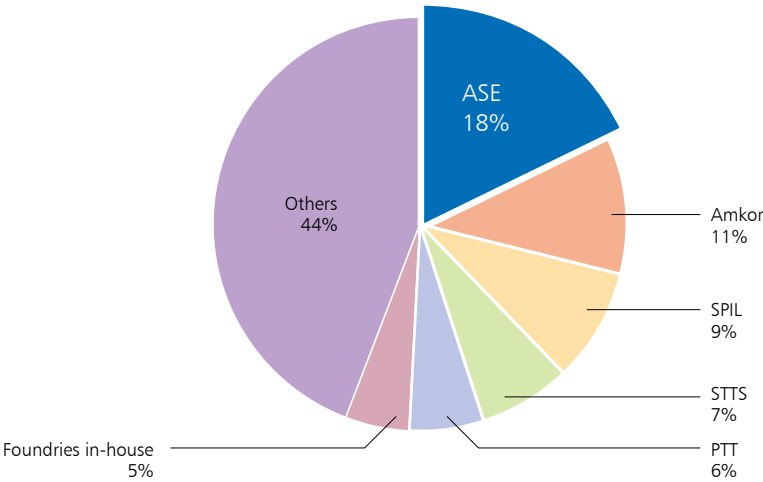
ASE is an active participant in worldwide semiconductor associations (ESIA/TSIA/CSIA/USIA/JSIA) and through the Taiwan Semiconductor Industry Association (TSIA), we hope to partner with leading semiconductor firms in Taiwan to pioneer innovation and development in Taiwan’s green and socially conscious semiconductor industry.

Notes:
ESIA - European Semiconductor Industry Association
TSIA - Taiwan Semiconductor Industry Association
CSIA - China Semiconductor Industry Association
USIA - United States Semiconductor Industry Association
JSIA - Japan Semiconductor Industry Association

Market Share

In 2012, ASE continues to lead the industry in the outsourced assembly and test services, ensuring us the number 1 position worldwide.

2012 Outsourced Assembly and Test Supplier (OSAT) Market Share

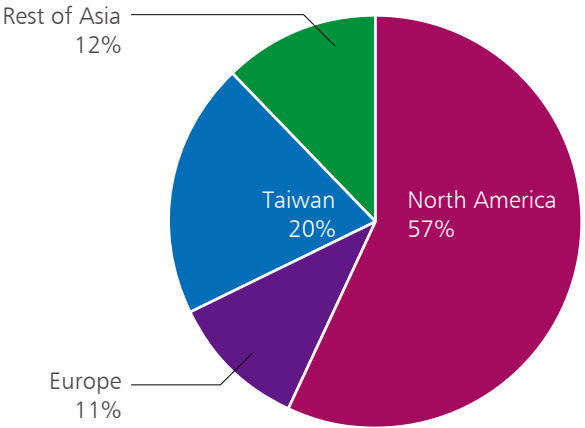


Source: SEC Filings, analyst estimates, ASE estimates. ‘Others’ include all other OSATS worldwide

Sales Region

In 2012, ASE products were mainly sold in the following geographical regions:

Total: 130,007,502KNTD



Management and Corporate Governance

ASE is a listed company on the Taiwan Stock Exchange Corporation where the Board of Directors heads the governing of the corporation. In accordance to regulatory requirements, we have set up an Internal Audit Department, which operates as an independent unit subordinate to the Board. The Internal Audit Department is responsible for periodically presenting audit results for review by the company’s Supervisors and Board of Directors. Subsidiaries of the ASE Group manage their employees, managers, and members of the Board in accordance with the local regulations and practices. The internal code of conduct and guidelines are aimed at promoting trustworthy and reliable business operations in line with social ethical standards and legal requirements. We also have applicable policies in place governing the workplace, health and safety, gender discrimination, bribes, conflict-of-interest situations, and the protection of the company’s assets and reputation.

The ASE management team pays close attention to both domestic and foreign policies and regulations that may influence our financial status and business operations. Also, the team has set relevant risk control programs. In CY2012, we have not been subjected to any major monetary or non-monetary disciplinary actions due to non-compliance with corporate governance regulations.

Besides setting up our internal controls system in accordance with the “Regulations Governing Establishment of Internal Control System by Public Companies” enforced by the Financial Supervisory Commission, we have also instituted stringent internal control points in accordance with the provisions of the US Sarbanes-Oxley Act. We conduct periodic self-assessments and group audits. We also authorize certified accountants to conduct verifications of our compliance with the provisions of the Sarbanes-Oxley Act. Group audits are designed not only to check, but also to offer recommendations and suggestions for improvement with the optimal objectives of ensuring sound operation of the Group, security of corporate assets, reliability and completeness of financial information, and improving operational efficiency.

The Group Audit Department reports directly to the Board of Directors with the primary duty of assisting management in supervising and evaluating the effectiveness of the internal control systems. In relation to the management of Board of Directors' meetings, a director shall voluntarily abstain from participating in discussion and voting, for himself or herself or as proxy on behalf of another director, if a proposal submitted to the board of directors involves the director's own interest and might put the interest of the company at risks. In an effort to improve the completeness and effectiveness of our internal control system and to enhance the results of corporate governance practices, we set out our internal audit functions as follows:

- The annual audit plan provides for internal assessments on specific areas of the operations to ensure implementation and compliance with corporate policies.
- Audits are conducted on investee companies over which the company exercises significant influence with the accompanying Statement of Internal Control System issued upon completion of an audit pursuant to the Sarbanes-Oxley Act.
- Special audits (project audits) are conducted where required.
- An audit report is issued upon completion of an audit. Deficiencies identified are followed up and rectified according to the plan.

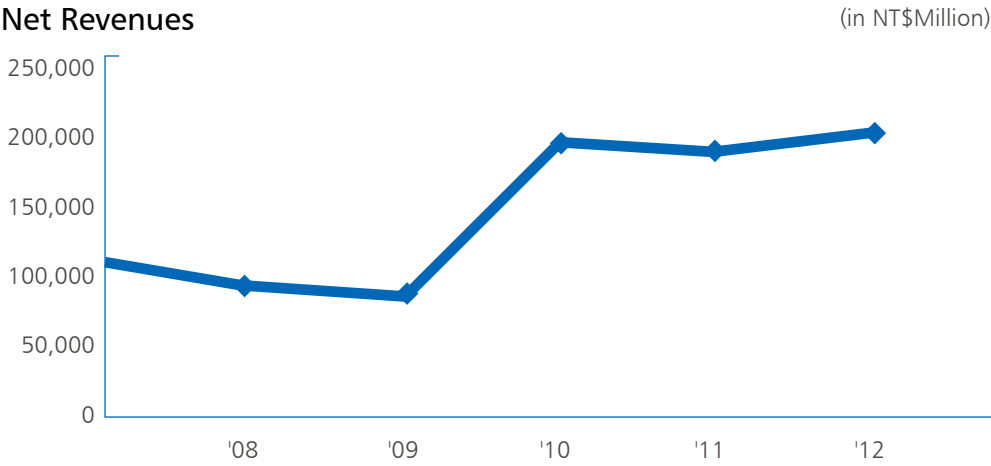
Comparison between ASE’s Corporate Governance Practices and Corporate Governance Best-Practice Principles for TSEC/GTSM Listed Companies

Item Description	Implementation Status	Differences
1.Ownership structure and shareholders' equity <ul style="list-style-type: none">•Methods used by the Company in handling shareholders’ proposals and disputes;•The Company shall have in possession, information and identity of major shareholders,•The Company shall conduct risk evaluation and establish appropriate firewalls between the Company and its affiliates.	ASE has designated appropriate departments, such as Investor Relations, Public Relations, and the Legal Department, etc., to handle shareholders’ proposals and disputes. ASE tracks the information on the identify of directors, officers, and shareholders holding more than 10% of the outstanding shares of ASE on a monthly basis through the “Statement of Changes in Major Shareholding” filed by the company and is fully aware of the identities of major shareholders through maintaining close contacts with these members. ASE has in place a system for internal controls, relevant policies and regulations. The audit department monitors the status of policy execution on a regular basis.	None
2.Composition and Responsibilities of the Board of Directors <ul style="list-style-type: none">•Institution of Independent Directors;•Regular evaluation of the independence of the Company’s external auditors (certified CPA)	ASE Group employs two independent directors. Both of them regularly review the independence status of our external auditors. None of ASE’s current external auditors is a related party of either the company or the company’s directors and supervisors. The independence status of ASE’s external auditors is not an issue of concern. At present, the members of the Board of Directors are all male, among whom 21% are under 50 years of age and 79% are over 50 years of age.	None
3. Establishment of communication channel with stakeholders	ASE has designated departments responsible for handling communications with the company’s stakeholders such as creditors, clients and suppliers. The employee union communicates with the company on a regular basis on employee related matters. ASE has established the Sustainable Development Management Committee to discuss and carry out action plans for sustainable development.	None
4. Information Disclosure <ul style="list-style-type: none">•Establishment of a corporate website to disclose information regarding the Company’s finance, operations and corporate governance•Other information disclosure channels (e.g., setting up an English website, designating responsible personnel to manage information collection, dissemination and exchange, utilizing a spokesperson system, webcasting investor meetings etc.)	ASE’s website is setup to disclose financial and operational information, which is maintained by the designated departments. The website address is http://www.aseglobal.com . Please refer to ASE’s 2012 Financial Report for information on the experience and background of each member of the Board. The report can be downloaded from the company’s website at http://www.aseglobal.com . ASE has designated persons responsible for filing periodic or special financial and operational information and publishing major announcements on the Market Observation Post System. ASE has designated spokespersons to provide information disclosure on behalf of the company. Information is also posted on the company’s website.	None (We are in compliance with the requirements of Sarbanes-Oxley act)
5.Operation of the Company’s Nomination Committee, Compensation Committee, or other functional committees	ASE has instituted the Audit Committee in accordance with the Sarbanes-Oxley Act. Directors and senior managers are remunerated in accordance with Articles of Incorporation. Please refer to ASE’s 2012 Financial Report for details. The report can be downloaded from the following website http://www.aseglobal.com . The Board of Directors has appointed independent directors who meet the criteria stipulated in Section 10A-3 of the US Securities and Exchange Act of 1934 to act as members of the company’s Audit Committee.	None (We are in compliance with the requirements of Sarbanes-Oxley act)

Financial Results

The Company’s combined revenues for 2012 were NT\$194 billion, an increase of NT\$8.6 billion and a growth of 4.7% compared to 2011. For semiconductor packaging and test services, the Company’s combined revenue in 2012 was NT\$130 billion, a growth of 1.9%. The revenue from advanced packaging services reached US\$246 million with a quarterly growth of 25% in 2012 Q4; and US\$834 million for the entire year, representing an annual growth of 23%. The Company’s revenue from copper wire bonding was US\$500 million in 2012, and copper wire bonding accounted for 60% of the total revenue as of Q4, far exceeding the industry average of 20%.

Gold wire bonding revenue saw a decrease of US\$600 million, with this revenue drop being attributed to a significant shift from gold wire to copper wire. In addition, gold price was weaker in 2012, leading to lower costs, and positively benefiting the Company’s profitability.



Government aid received in 2012 by factory location (US\$)

Kaoshiung	Chungli	Shanghai (A&T)	Shanghai (Materials)	Kunshan	Suzhou	Weihai	Korea	Japan	Malaysia	Singapore	Group Total
27,526,529	56,352	128,000	1,043,010	209,934	183,765	3,019,51	140,000	1,710,146	4,500,000	96,729	35,594,465

Notes: 1. Government financial aid includes training subsidies, investment and tax incentives
2. Our Nantou facility did not receive any government related financial aid

Management and Evaluation of Operational Risks

ASE is listed on the New York Stock Exchange by the issuance of American Depositary Receipts (ADR). As such, the company is required to comply with the Sarbanes-Oxley Act. The Act regulates that an enterprise must, on an annual basis, conduct a survey to assess its enterprise’s risks and issue a statement on the results of the assessment for disclosure in the company’s financial statements.

Assessment and Management of Risks

In relation to the enterprise’s risk assessment and management in 2012, ASE has performed regular assessments on the management of operational, financial and fraud related risks. In recent years, we found no incidence of bribery and related risks. To satisfy Section 404 of the Sarbanes-Oxley Act on mandatory assessments of enterprise-level risks, ASE carried out assessments on 135 risk items, weighted by five indicators including net sales, net income, total assets, equity and the total number of employees and has effectively kept the respective risk scenarios under control.

Scope of Risk Assessment and ASE Locations

Scope of Risk Assessment	Operational bases Included in Assessment
<ul style="list-style-type: none">Financial statementsFraudTransactions among related partiesGroup level	ASE Inc. Kaohsiung, Chungli, Nantou, Japan, Korea, Singapore and Malaysia, ASE Test Kaohsiung and Chungli, ASE Electronics, Power ASE, ASE (Shanghai), ASE Assembly & Test (Shanghai), ASE (Kunshan), ASE (Suzhou) and ASE (Weihai).

In addition to complying with regulations required by the local governments within the jurisdiction of the places of operation, subsidiaries of the ASE Group also voluntarily take into account the related provisions and principles of the “Corporate Social Responsibility Best Practice Principles for TWSE/GTSM-Listed Companies” to manage the environmental and social risks associated with their business operations. The optimal goal is to promote balanced and sustainable developments within the economy, society and environment/ecology. Our efforts and actions reflect our full commitment to fulfilling our corporate social responsibilities.

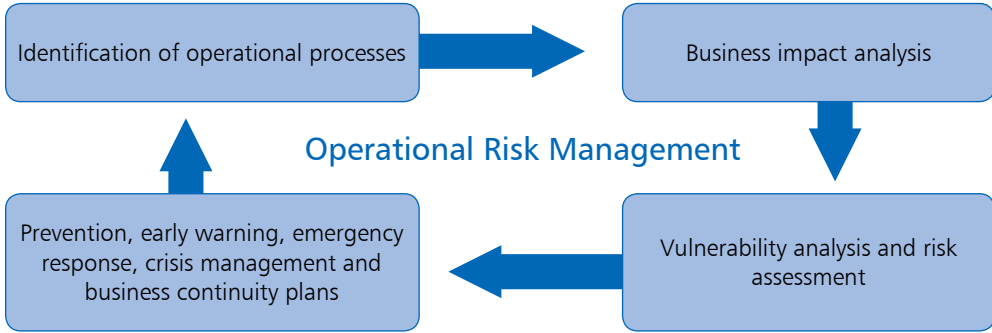
Comparison between ASE’s Sustainable Development Management Practices and Corporate Social Responsibility Best Practice Principles for TWSE/GTSM-Listed Companies

Item	Implementation Status	Differences
Chapter 1- General provisions, states the purpose for implementing the Principles, identifies companies to be governed by the Principles and stipulates implementing guidelines (Article 1 to Article 5)	ASE has established the Sustainable Development Management Committee and formulated the sustainable development policy.	None
Chapter 2- Exercising corporate governance (Article 6 to Article 11)	ASE has formulated the sustainable development policy and established a diverse array of communication channels to facilitate dialogues with stakeholders.	None
Chapter 3- Fostering a sustainable environment (Article 12 to Article 18)	ASE fully promotes and supports the implementation of environmental safety and health management systems. We designate personnel and departments to oversee environmental safety and health issues, deploy periodic environmental safety and health training, seminars and events and various carbon-reduction projects.	None
Chapter 4- Preserving public welfare (Article 19 to Article 28)	ASE has put in place the Code of Conduct, Value and Ethics to regulate employees’ behavior; a comprehensive career development program; a complete customer confidentiality and information security maintenance system. We enhance our social participation through our inhouse charity vehicle - The ASE Foundation.	None
Chapter 5- Enhancing the disclosure of corporate social responsibility information (Article 29 and Article 30)	Publish the sustainability report on a regular basis (available online at www.aseglobal.com)	None
Chapter 6- Examining and improving corporate social responsibility programs established by the companies (Article 31)	Continue to track and participate in global sustainable and corporate social responsibility developments	None

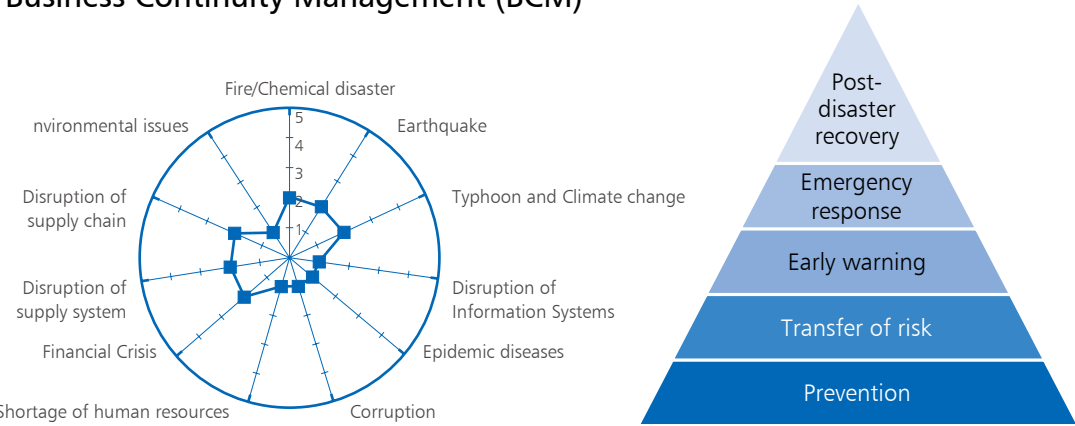
Evaluation of Operational Risks

- Effective operational management of risks, and prompt control and response in a crisis
- Place importance to all factors of risks and opportunities for prevention of a crisis

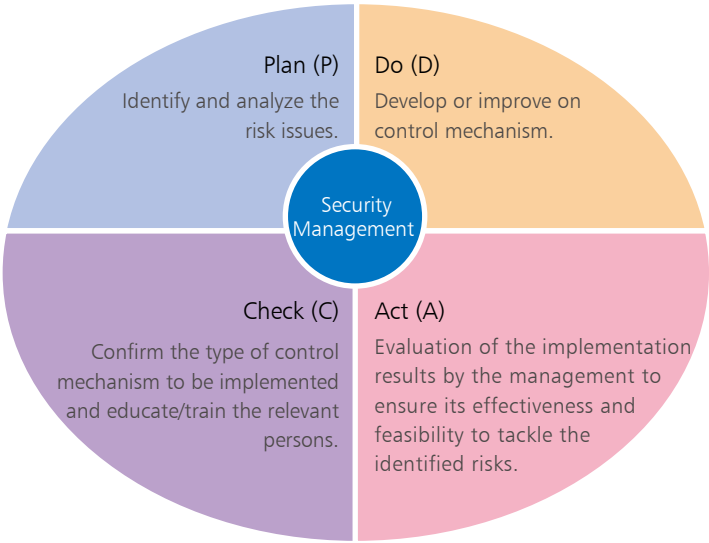
Risks faced by businesses on a regular basis include financial exposures, natural catastrophes, supply disruption, intellectual property theft etc. ASE manages its operational risks by strategically locating its manufacturing facilities in various geographies, as well as practising the standards stipulated in PDCA (Plan-Do-Check-Act) and ISO22301 management systems standard for BCM (Business Continuity Management). Our ASE sites located in Kaohsiung, Chungli, Nantou, Taiwan; Shanghai, Kunshan, China; Japan; Malaysia; Korea and Singapore have put in place BCM standards and hold regular simulation exercises to ascertain impacts of key risks, response and recovery to the operations.



Business Continuity Management (BCM)



In recent years, ASE has further strengthened its controls on factory security and safety; continuity of power supply and production; and logistical flows. In 2012, the ASE Kaohsiung facility further tightened its policies on the security of its supply chain by including daily monitoring of response mechanisms, early alert and risk management. On the security front, ASE has established management systems with detailed standards, policies and procedures documented to prevent any risks to information, personnel, access, product, transportation and warehousing security. The ASE risk management team practices PDCA methods – Plan, Do, Check, Act.





COMMUNICATION AND ISSUE MANAGEMENT

- Emphasis on communication with stakeholders and active transmission of the implementation of key issues
- Continued enhancement on the way to communicate and cooperate with stakeholders

We attach importance to the communication with different stakeholders. By establishing the proper communication channels, we include important feedback into our operation planning strategies and implementation.



Identification and Communication with Stakeholders

To gain full insight into issues of concern to our internal and external stakeholders, we work with the representatives of all business units (BUs) and the senior management team to identify these issues in relation with the sustainable operation of ASE through interviews and surveys. Interviews were held with our various enterprise units such as R&D, procurement, facility, quality assurance, human resource, customer service, legal, finance, the ASE Foundation and so on. In 2012, we added key sustainability issues on operation risk management, energy management and conservation and regional ecological conservation.

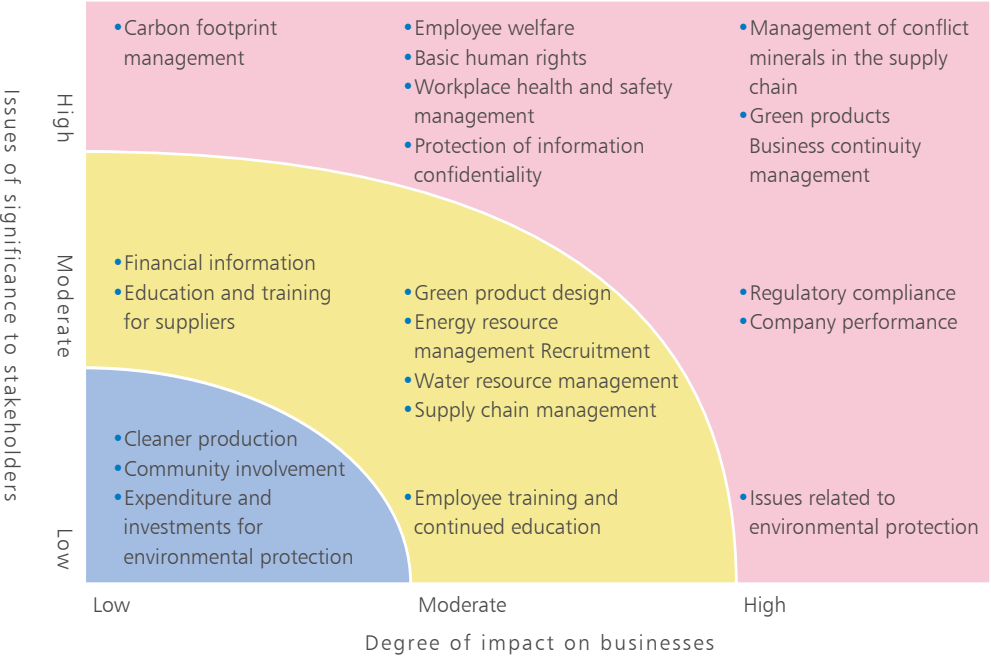
2013 Planned goals



2012 Issues of Concern and Communication Platforms

Stakeholders	Communication Channels	Issues of Concerns
Customers	Focus teams, customer service department	<ul style="list-style-type: none">• business continuity• green products• conflict minerals• confidentiality of information
Direct and indirect employees	Employee communication meetings, GM mailbox, general feedback mailbox, public notice board, ASE newsletters, internal memos, training courses, email, intranet, counseling rooms.	<ul style="list-style-type: none">• employee benefits• employee training• human rights• worker health and safety management
Shareholders	Annual financial reports, shareholders' meeting, release of information through official government channels of communication	<ul style="list-style-type: none">• company performance• financial data
Suppliers and Contractors	Surveys, on site audits, training and awareness programs, forums, online information portal, Quarterly Business Review	<ul style="list-style-type: none">• operational risk management• supply chain management
Community	ASE charity foundation, volunteer organization, public relations team	<ul style="list-style-type: none">• environmental protection• social work• recruitment
Government	Industry and technology conference participation and involvement in the policy making process for key initiatives	<ul style="list-style-type: none">• energy resource management• regulatory compliance• anti-pollution• various expenditure and investment in environmental protection effort
Industries and associations	Participation in industry, technology and standards meetings, collaboration, involvement in the policy making process for key initiatives	<ul style="list-style-type: none">• carbon footprint management• cleaner production• energy resource management
Media	CSR reports, corporate website, news releases	<ul style="list-style-type: none">• company performance
NGOs/NPOs	Corporate internet, publicity conference, forums	<ul style="list-style-type: none">• energy resource management• community involvement• green product design
Academic Institutions	Industry-university joint educational programs, technology forums, reciprocal-visits	<ul style="list-style-type: none">• training of professionals• talent recruitment

2012 Stakeholders’ Issue Matrix



- Suzhou Park Semiconductor and Electronic Product Association
- Taiwan Enterprise Sustainability Forum
- Taiwan Semiconductor Industry Association (TSIA)
- Taiwan Supply Management Institute
- YEIA - Yonezawa Electronics Industrial Association

Electronics Industry Code of Conduct (EICC)

ASE complies with Electronics Industry Code of Conduct (EICC) by requiring our main suppliers to conform to the laws and regulations of the country/region where they operate their business. At present, ASE facilities in Kaohsiung, Chungli and Shanghai have completed EICC®-GeSI Validated Audit Process (VAP) and granted the EICC®-GeSI Validated Audit Report (VAR). The EICC platform enables us to communicate with global stakeholders about what we have done in terms of labor, health, safety, environment and morality.

EICC disclosed status	ASEKH	ASECL	ASEWH	ASEKR
Completion of EICC VAP&VAR	✓	✓		
Completion of ETASC SAQ	✓	✓		✓
Completion of EICC-ON SAQ	✓	✓	✓	

Note: Other ASE sites will take the initiative to complete and implement.

Carbon Disclosure Project (CDP)

We provide complete, transparent information to address the request by external stakeholders and disclose GHG information on the CDP website. ASE’s 2012 carbon information disclosure is focused on the following items:

- Analysis of risks and opportunities of climate change and countermeasures.
- Computation of greenhouse gas emissions.
- Results of carbon-reduction plans and computation of greenhouse gas emissions.
- Management of greenhouse gas emissions.
- Status reports on each greenhouse gas emission.
- Suppliers’ greenhouse gas management.
- Create opportunities for greenhouse gas reduction from products’ life cycles.
- Greenhouse gas reference year and its emission volume.

Dow Jones Sustainability Index (DJSI)

The Dow Jones Sustainability Index is the first sustainability index in the world and was launched in 1999 by Dow Jones Co and Switzerland’s Sustainable Asset Management (SAM). DJSI is a stock index that measures the sustainability performance of the largest 2,500 companies listed on the Dow Jones global stock market index. In 2012, ASE participated DJSI survey aggressively and we aim to be eventually included in the DJSI list of companies as part of our sustainability development.



Participation in External Organizations

ASE actively participates in external organizations and activities for cross-industry learning and industrial integration. As a leading member of the IC packaging and testing sector, ASE is also an active contributor to international programs initiated by the World Semiconductor Council (WSC), International Technology Roadmap for Semiconductors (ITRS) and other industry organizations. Dr. Tien Wu, Chief Operating Officer sits on the board of the Global Semiconductor Alliance (GSA), an organization to advance the collaboration, integration and innovation of the semiconductor eco-system. Dr. Ho-Ming Tong, Head of R&D represents ASE on the board of ITRS, a group working to define the standards of the semiconductor technologies and promoting our industry’s advancement.

Industry Organizations where ASE actively participates:

- Business Council for Sustainable Development (BCSD)
- China Semiconductor Industry Association (CSIA)
- Free Industrial Zone, Penang, Companies' Association (FREPENCA)
- Global Semiconductor Alliance (GSA)
- Japan Yamagata Semiconductor Industry Association
- Semiconductor Equipment and Materials International (SEMI)
- Shanghai Environmental Protection Industry Association
- Shanghai Integrated Circuit Industry Association (SICIA)
- Supply Management Alliance



ENVIRONMENTAL SUSTAINABILITY

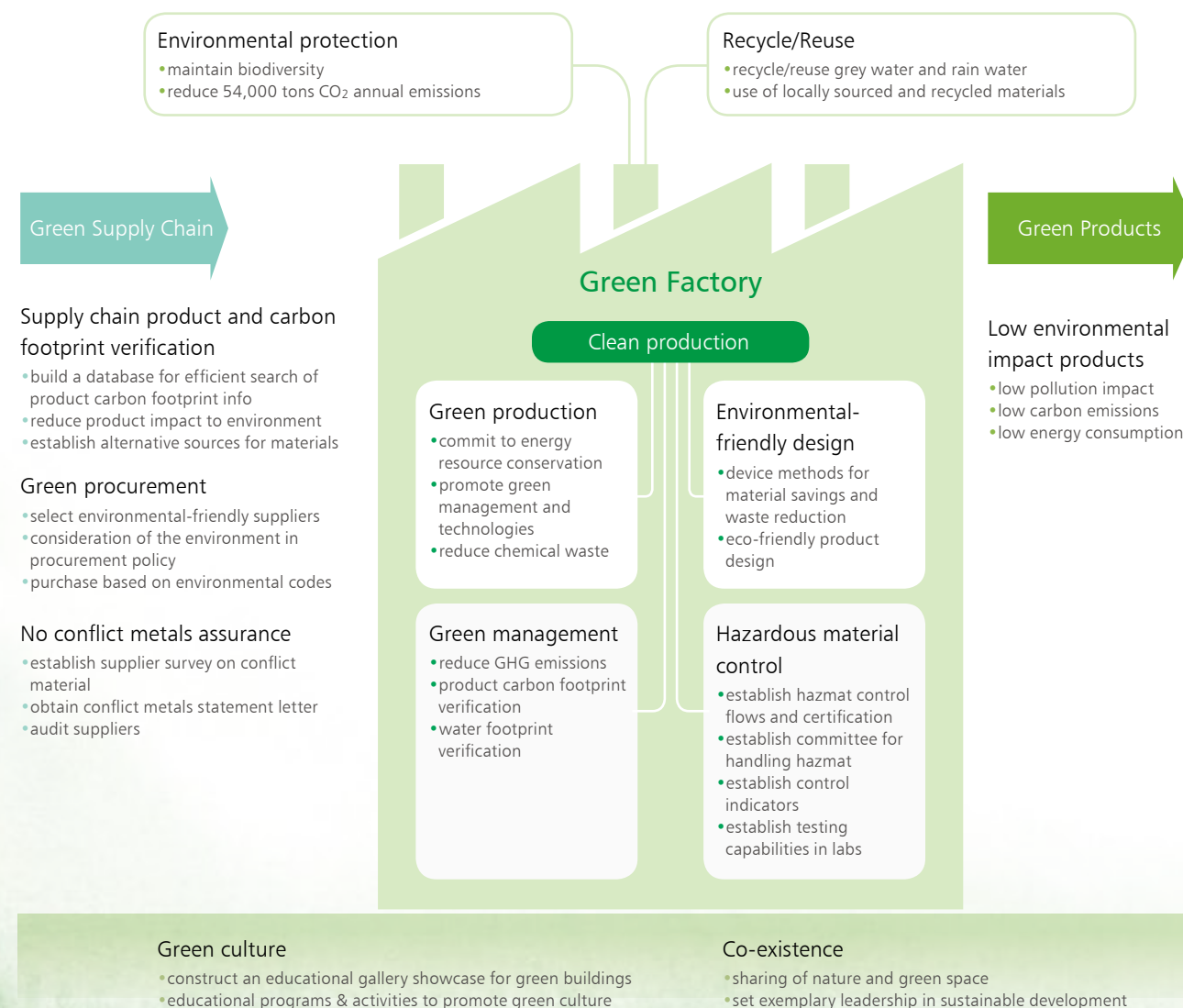


Green Enterprise

- Integrate into a green supply chain. Produce green products.
- Evolve towards a green enterprise.

As part of its strategic global business plan, ASE strives to develop and promote a green concept in all the facets of its enterprise. From the initial product design stage, we conscientiously incorporate using green materials and green manufacturing processes. We build green factories, promote resource conservation, reduce carbon footprint to mitigate the impact of our operations on the environment.

Our ASE Kaohsiung building K12 was accredited the EEWB diamond tier certification in 2012 and at the same time, the ASE Kaohsiung facility was awarded 'the cleaner production' certificate by the Industry Department of the Taiwan Economic Ministry.



Environmental Protection

- To protect the global environment, we target “zero” waste and “zero” pollution

We promise:

- To decrease electricity consumption on per unit of output by 1% annually
- To maintain the reuse rate of processed water above 50%
- To maintain waste utilization rate above 70%
- To reduce GHG emission by 10% over the next 10 years

ASE deploys ISO14001 Environmental Management Systems standards to identify and assess environmental aspects and take appropriate steps to reduce environmental impacts. As an additional measure, we apply the U.S. Environmental Protection Agency (EPA) -mandated pollution control standard - Best Available Control Technology (BACT) where we review factors such as energy consumption, total source emission, regional environmental impact, and economic costs for cleaner air, water and environmental protection.

In 2012, the various pollution control standards implemented at ASE were superior to the relevant provisions of the local government. We also did not record any major incidences of environmental impact in 2012.

Environmental protection and management

Ambient Noise Control: Noise monitoring and control equipment are installed throughout our facilities to minimize the level of disturbance to neighboring tenants and residents in the course of our manufacturing and operations.

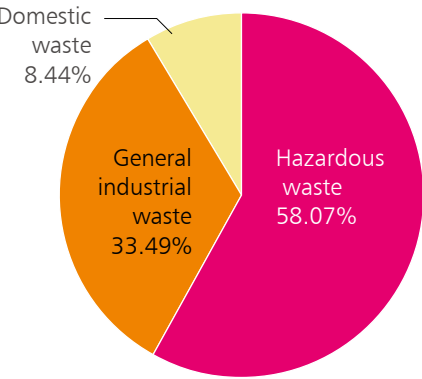
- **Air Quality:** ASE installs the most advanced air pollution control equipment in its facilities to reduce the emission of volatile organic compound (VOC), acid and alkali gases. Maintaining a clean air quality environment is essential for ASE to operate harmoniously with its surrounding community.
- **Water Resource Management and Pollution Control :** Reduction of wastewater in the manufacturing process; Recycling of wastewater; Water recycling, Segregation of wastewater; at designated collection points; Segregation of highly toxic wastewater for special processing and treatment.
- **Hazardous Material Management:** Cautionary and prevention labels clearly displayed in both English and Chinese text; careful storage and segregation of chemicals and hazardous materials; prevention of and handling of any leakage, explosions, fire; install real time monitoring systems, increase the number of fire-fighting equipment in high risk areas and establish proper disposal channels for hazardous waste.
- **Waste Management:** Industrial waste reduction and recycling, domestic waste recycling, packaging material recycling, waste scraps recycling

Environmental Statistics by ASE Group in 2012

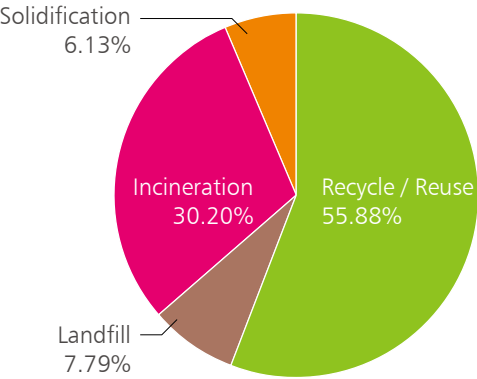
Category	Environmental performance index	Total units within the ASE Group	
Air pollution and Emission management	SOx	1.55	Ton/year
	NOx	28.51	Ton/year
	VOC	106.39	Ton/year
Waste Management	Total amount of waste produced	29,647	Ton/year
	Total amount of waste recycled	16,567	Ton/year
	Recycling rate of waste	55.88	%
Environmental impact	Major leakage of chemicals	0	time/year

Notes:
1.ASE plants use water supplied by the local county; no major impact from the water source
2.Waste disposal is outsourced to a third party company providing professional and legal handling methods
3.The waste gas emitted is not ozone-depleting substances

Types of Waste Material



Types of Waste Handling Methods

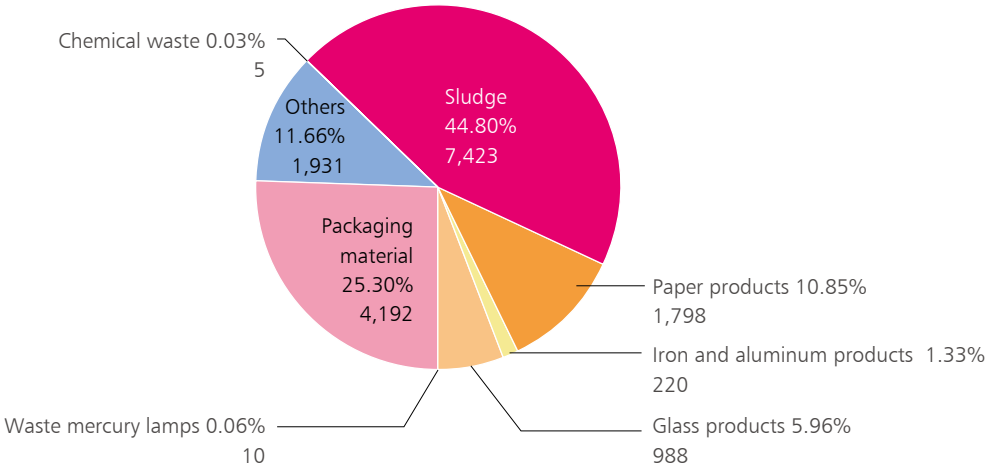


Waste Reduction and Recycling Projects Executed by ASE Group in 2012

- Recycling of liquid chemical waste used in production by split-flows and separate pipes
- Recycling of acetone waste and nickel-plating waste
- Recycling of copper sludge
- Recycling of scrap
- Recycling of transportation pallets, partitions, aluminum foil bags, and other packing materials
- Recycling and reuse of computers and peripherals

2012 Recycling Statistics

Unit: Ton



Notes:
1.Scrapped ICs are not included in the 'iron and aluminium' category
2.'Others' include aluminum foil, scrapped waste and waste material; which are recycled through third party recycling companies

Computer Recycling Programs

ASE collects and recycles used or obsolete notebooks, computer mainframes, monitors and peripherals. At ASE Kaohsiung, the facility collaborates with Asus Computer Company in a 'PC Recycling' project to repair and refurbish these computers and donate them to rural schools and under-privileged children's organizations, fulfilling both the environmental and charity ideals of the company.

2012 Recycling Statistics

Recycled items	PC hosts	Notebooks	CRT monitors	LCD monitors	Others
Annual quantity (sets)	2,926	700	1,678	1,321	101
Accumulated quantity (sets) 2009-2012	6,741	2,135	7,173	2,267	384



Energy Resource Management and Conservation

- Incorporate ISO50001 standards to improve energy and resource conservation rate, and increase the use of green energy sources
- Strengthen internal environmental control and the integration of energy and resource management and conservation throughout the supply chain

We implemented the 'greenhouse gas reduction' program with efforts such as efficiency and energy recycling for air compressors, air conditioners, electrical power and water resource systems in the factory.

To ensure the effectiveness of our implementation programs, our Kaohsiung and Korea facilities have launched monthly reviews to assess the progress and results of these energy conservation improvement activities.

Statistics of Energy Consumption by ASE Group 2012

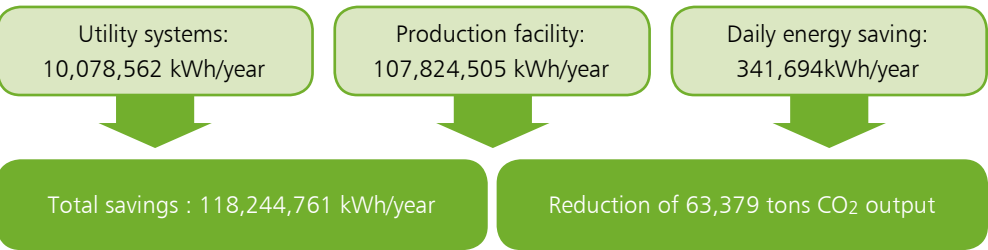
Electricity	Natural gas	Gas fuel	Diesel fuel	LPG	Biodiesel
1,613,258,734 (kWh / year)	285,481 (GJ / year)	984 (GJ / year)	207 (GJ / year)	3 (GJ / year)	0.24 (GJ / year)



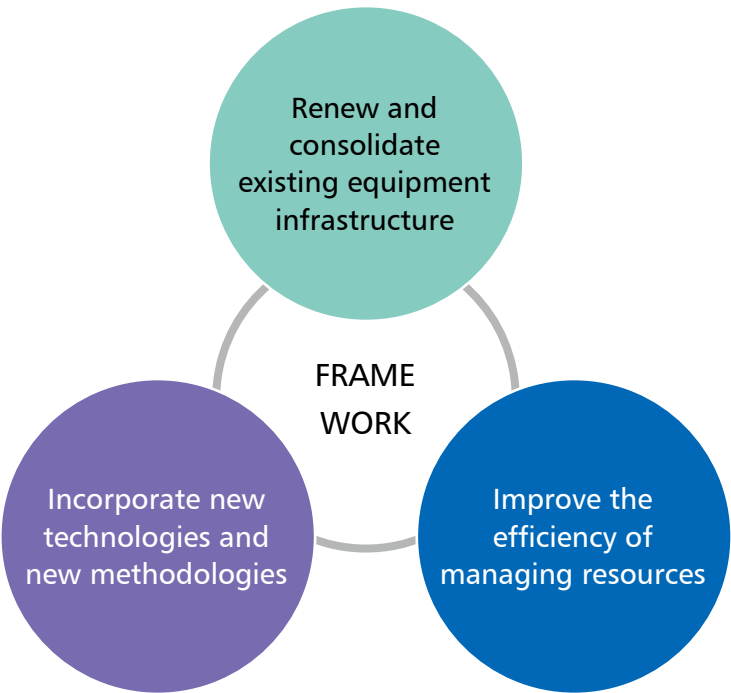
Electric Power Resource Management and Energy Conservation

Electricity consumption is the biggest contributor of ASE's GHG emission. This is an area where ASE has prioritized to manage and reduce consumption levels as a focus in its management reports. In 2012, ASE Kaohsiung successfully implemented the ISO50001 international standard to manage and improve energy efficiency. This standard is based on the P/D/C/A (plan, do, check and act) framework and incorporates energy management into daily organizational practices.

2012 Energy Conservation Programs and Results of Savings



(conversion = 0.536 kg CO₂/kWh)



Reduce power consumption in air conditioning by consolidating the locations of the air condensers for more efficient usage



Replacing inefficient cooling towers



Modifications made to the compressed air dryer to prevent malfunctioning and reduce power consumption



Automated temperature control installed in N₂ cabinets to reduce power consumption



Water resource management

The semiconductor industry consumes a vast amount of water in the production process. Water resource management is very important to ASE. It is imperative to focus on water conservation, wastewater management and recycling.

On an annual basis, ASE implements water conservation efforts by improving the water treatment process, recycling of processed wastewater and increasing the recycling rate of water. In 2012, the total tonnage of water saved amounts to 7,106,437 tons. Beginning 2013, ASE Kaohsiung will build an ‘Eco-building’ to promote water recycling. We estimate that the program will result in 50% recycling rate from 20,000 tons of waste water daily.

2012 ASE Water Management Index

Total water consumption	Amount of process water recycled and reused	Wastewater discharge	Land discharge	Sea discharge
16,682,702 (m³/year)	7,106,437 (m³/year)	13,096,884 (m³/year)	76.77 (%)	23.23 (%)

2012 Water Conservation Programs and Results

Type	Description
Pure water system	Ultrafiltration (UF) - Recycle water using UF methods
	Reverse osmosis (RO) - Water recycled for use in toilets
	Recycle and reuse water used for washing equipment
Water recovery system	Recycle through UF and reuse wastewater used in dicing and backgrinding equipment.
	Recycle using RO and store in primary storage tank
Waste water recycling	Recycle and reuse of water from manufacturing equipment
Rainwater	Collection of rain water and treatment. Use in the watering of trees and plants



Carbon Management

As global economies advance, industries are bound to play an increased role in managing environmental risks. Carbon management is an integral part of a business’ overall performance in corporate social responsibility. ASE tracks our carbon footprint in terms of the amount of greenhouse gas emissions and the management assesses such data to ensure improvements made in energy efficiencies, and lowering potential impacts and risks to the company.



Greenhouse Gas Management

- To reduce the amount of greenhouse gas (GHG) emissions per unit of production by 10% in 2017 compared to 2007
- Implementation of GHG management in the supply chain and lead carbon management

Beginning 2007, ASE launched a “10 years, 10 percent” campaign, with the aim of reducing our carbon footprint by more than 10% in 10 years. For 2012, those facilities had already reduced 3.47% of carbon footprint.

Greenhouse gas reduction

- Initiate GHG verification team
- Establish Ground level GHG emission data
- Execute voluntary GHG improvement projects

Carbon Disclosure Project (CDP)

- Publish the relevant data on GHG emissions under the CDP
- Participate in the Dow Jones sustainability index
- Publish annual report on CSR – print and online versions

Greenhouse Gas (GHG) Verification

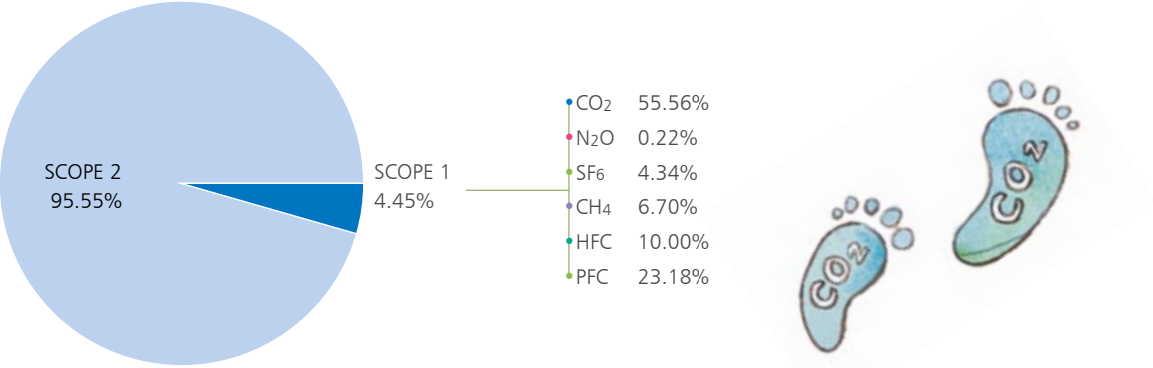
- Annual verification of GHG emission and review emission targets
- Collate company-wide statistics showing the trends on improvement efforts and integrate ISO14001 standards into operational management
- Collaborate with vendors to conduct GHG verifications and raise the level of green quality products for overall competitiveness

In 2012, the ASE Group’s total greenhouse gas emissions amounts to 1,002,964 tons of CO₂-e, of which 95.55% emissions are mainly from purchased electricity (Scope 2); vehicle fuel, emergency power generators, steam boilers and 4.45% from staff sewage discharge (Scope 1). Due to the difficulty of collecting data for other indirect greenhouse gas emissions (Scope 3), the company has relied on qualitative data as a focus. Other indirect greenhouse gas emissions include activities from outsourced restaurant LPG / LNG, vehicle transport operations, removal of sludge / waste, employee commuting, business trip, business travel etc.

Greenhouse gas emission	Unit	ASEKH	ASECL	ASENT	ASESH (A&T)	ASESH (Material)	ASEKS	ASEN	ASEWH	ASEKR	ASEJP	ASEML	ASESG	Group total
SCOPE 1	Ton CO ₂ -e/year	17,395	2,041	25	3,091	6,055	43	46	200	10,947	4,357	421	0.15	44,621
SCOPE 2	Ton CO ₂ -e/year	399,685	113,649	2,349	96,155	73,429	29,076	32,441	21,913	92,150	21,340	50,412	25,744	958,343
Total	Ton CO ₂ -e/year	417,080	115,690	2,374	99,246	79,484	29,119	32,487	22,113	103,097	25,698	50,833	25,744.15	1,002,964
GHG output intensity	Ton CO ₂ -e/KUSD	0.25	0.24	0.45	0.35	0.61	0.38	0.32	0.20	0.23	0.32	0.44	0.31	0.28

Notes:
Scope 1: All direct GHG emissions such as automotive petrol, emergency power generators, steam boilers, domestic waste disposals.
Scope 2: Indirect GHG emissions from consumption of purchased electricity.

GHG: scope 1 vs scope 2



Carbon Footprint and Water Footprint
ISO 14040 Life Cycle Assessment

We established a database for monitoring the GHG emission levels and later incorporated the ISO14040 LCA (Life Cycle Assessment) techniques to assess environmental impacts from four major assembly products – leadframe, BGA, CSP and flip chip package types, and substrates. Through the use of LCA, we evaluate data on the environmental impact contributed by raw materials, in-process manufacturing, transportation, consumption and disposal of the end product.

PAS 2050 Product Carbon Footprint

To enable our customers to have full confidence in ASE’s commitment to reduce carbon emissions, we adopted PAS 2050 standards for measuring the carbon footprint of our goods and services; mainly our leadframe, BGA, CSP and flip chip package types, throughout their full lifecycle. ASE became the first semiconductor assembly and test provider to receive accreditation for PAS 2050:2011 standards and we also began to separately classify the carbon footprint of gold wire and copper wire products.

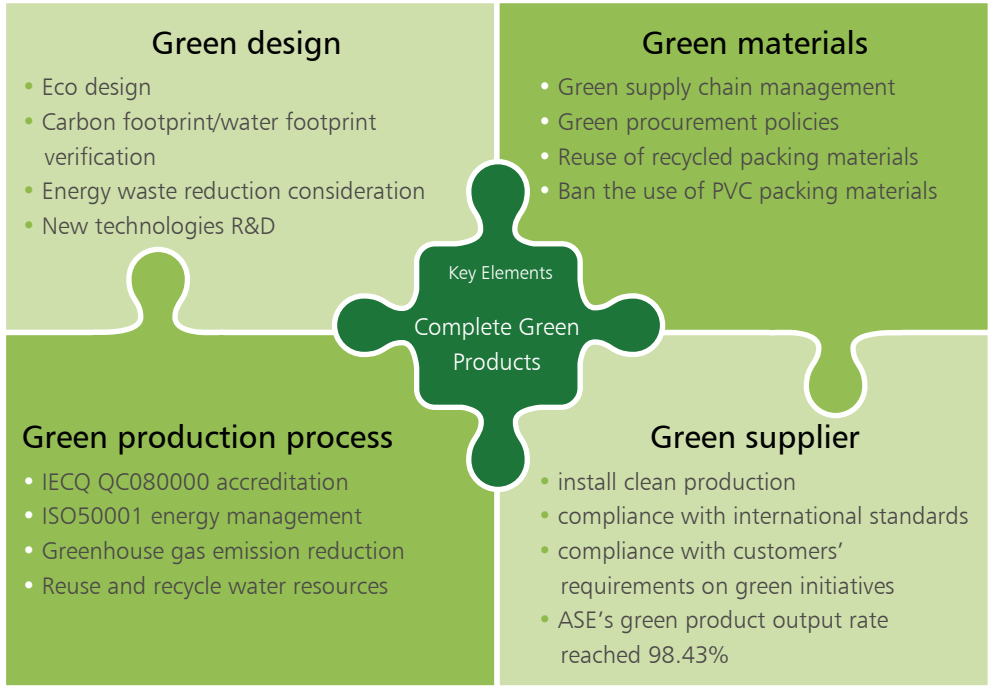


Water Footprint verification

Water is an essential source of life and ASE is conscientiously making efforts to ensure the conservation and preservation of our water resources. In 2012, ASE and the Taiwan Economic Ministry’s Industrial Department jointly organized the product water footprint guidance plan. ASE also actively involves its supply chain in promoting the guidelines for measuring product footprint across its life cycle. ASE became the first semiconductor assembly and test provider to receive water footprint accreditation.

Green Products and Eco-design

ASE’s products conform to the applicable EU and international laws and regulations in the areas of eco-design and development of products that are low in impact to the environment and carbon footprint. Besides product design, ASE pays special attention to green efforts in as many areas as possible such as new technology introduction, the production flow, material and equipment use.





Green Products

- Meet customer requirements for Green Products
- Implement strict procedures for the inspection and management of hazardous substances in material supply and enhance the quality of green material procurement
- Increase the green content in packing materials and at the same time reduce the quantity used in production

In today’s competitive environment, businesses not only need to provide top quality products, but be equally conscientious about compliance to major international laws and regulations, and topics of concern to their customers. ASE has gone a step further to adopt the EU RoHS product code system, specifically R and G codes; to provide more information on the composition of our products for our customers’ knowledge. Our customers can be assured that we have in place, proper management systems to manufacture with hazardous substance free products and processes.

2012 Green Product Output Rate at ASE’s Factories

	ASEKH	ASECL	ASENT	ASESH (A&T)	ASESH (Material)	ASEKS	ASEN	ASEWH	ASEKR	ASEJP	ASEML
Rate	99.69%	99.70%	100%	99.70%	100%	100%	100%	93.00%	99.50%	98.11%	93.00%

Notes:
1.Rate of green product output is directly related to customers’ specific needs for green products.
2.ASE Singapore is an IC testing facility and does not manufacture green products.

Hazardous Substance Process Management (HSPM)

To meet the goals of creating green products and a green environment, ASE adopted the Hazardous Substance Process Management (HSPM). Included under the HSPM are; the formation of a HSPM committee, the setting of hazardous substances control indicators, the monitoring of the progress and effectiveness of these controls and the required improvements to these measures. ASE is IECQ QC08000 certified and hence, is an assurance to our customers that we have developed, documented, and implemented processes for managing the production, selection and use of electronic components, assemblies, processes and related materials that comply with customer, local and international HSF (hazardous substance free) requirements.

1.EU Restriction of Hazardous Substance (EU RoHS). ASE is compliant with EU RoHS requirements. However, exemption has been made for the flip chip bumping process due to technology constraints on the use of lead in the process. Regardless of the exemption, ASE has researched extensively and developed a lead-free flip chip bumping process and is ready to meet customers’ demand for lead-free processes.

- 2.Halogen-free electronic products. In general, most of our customers require the concentration of Bromine and Chlorine in products to be less than 900ppm respectively and less than 1500ppm in total. ASE is in compliance with the above requirements and is able to supply customers with HF products.
- 3.Perfluorooctane sulfonates (PFOS) restriction standards. PFOS is listed as a controlled hazardous substance in ASE since 2008. Photoresist materials using PFOS is exempted under the EU PFOS. However, ASE has phased out the use of PFOS from its photoresist supplier base in 2011.
- 4.EU REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) directive. ASE is in compliance with this directive, as well as identifying Substances of Very High Concern (SVHC).

ASE has also launched an ISO/IEC 17025 certified internal laboratory that is capable of testing lead (Pb), Cadmium (Cd), Hexavalent-Chromium (Cr+6), Mercury (Hg), Polybrominated biphenyl (PBB) and Polybrominated diphenyl ether (PBDE). This laboratory allows ASE to conduct internal testing and analysis to ensure product compliance with international laws and standards and to meet customers’ requirements.

Vendor Document Management System

The vendor document management system enables us to effectively track and manage our suppliers’ products and services and exchange information between us and our suppliers. This creates a paperless work environment and information can be transparent and accessed real time. ASE Kaohsiung has set up a Substance Control System (SCS) online that vendors/ suppliers can easily upload and transmit information, and submit enquiries.

Selection of Raw Materials

The majority of raw materials that ASE uses are generally common and available in large volumes. We are also careful to note the origins of these raw materials and that they are not supplied from conflict regions. The annual consumption of ASE’s key materials is listed in the following table.

Total Consumption of Key Materials 2012

Category	Description	Quantity	Unit of measurement
Key raw materials	Molding compound	7,242,581	Kg
	Solder ball	884,726,543	pcs
	Lead frame	17,910,798	pcs
	Substrate	4,705,841	pcs
Recycled raw materials	Trays used	6,900,132	pcs
	Trays recycled	2,574,476	pcs
	Tray recycling rate	37.31%	%

Green Packing Materials

We use packing materials that are 100% recyclable and conform to EU packing regulations. Materials that can be recycled or reused are sorted and classified, thus reducing wastage.

Packing Materials

- Compliant with EU packing regulations
- Use of recyclable materials
- Strictly prohibit the use of packing materials made of PVC.

Statistics of Packing Material Recycled 2012

Item	Cartons	Pallets	Cassettes	Others (ESD bags, filler materials etc)
Amount recycled (Tons/year)	1,654	597	869	1,072

Eco-design

- Introduction of eco-design in production
- Implementation of green product and green design to reduce the impact on the environment

The ever changing market and customers’ perception on product value – cost-performance ration, user-experience and lower energy and carbon emissions; have driven our corporate technology and R&D to offer more advanced and enhanced current technology in order to meet these demands. Customers not only care about their product’s quality and performance but also the product’s impact on sustainable development and the environment.

ASE continues to innovate in IC packaging, to provide technologies that meet the demands of smaller, thinner, lighter and less energy consuming electronics. In recent years, we have also included green materials, reuse/recycle concepts and green processes to enable these technologies listed below:

- Fine pitch copper pillar flip chip solution for advanced wafer nodes
- Wafer level MEMS integration
- Wireless RF Modules

We will continue to research and develop eco-design in our product offerings and enable us to provide our customers with high performance products using eco-friendly processes. Customers can count on the ASE brand as a name synonymous with quality, green and eco-friendliness.

Intellectual Property

Since the first patent filed in 1994, ASE now owns more than 3,700 patents on IC packaging technology. In 2012, under the guidelines from the World Intellectual Property Organization, ASE published the ‘Intellectual Property’ report outlining all its achievements in the respective patents filed. The report has won ASE recognition from ‘GV magazine’, the leading business publication in Taiwan.





Social Responsibility/Environmental Accounting

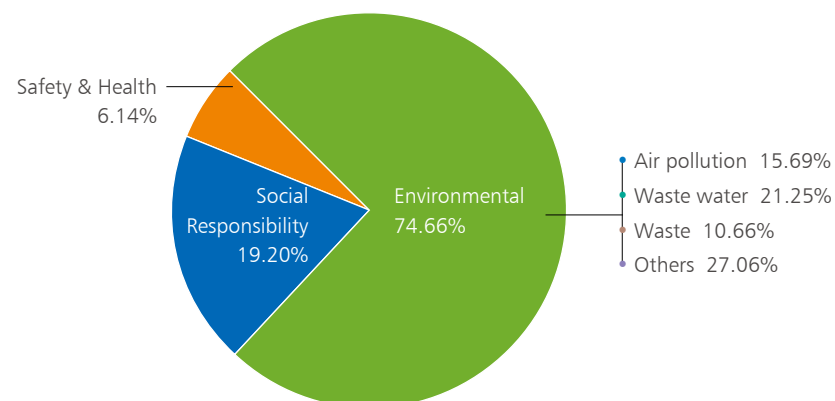
- Fulfill an enterprise's social obligation to the environment, safety, health and society

ASE adopted the social responsibility/environmental accounting principles and approaches as a means to effectively manage accurately the costs of environmental management activities. In 2012, ASE Kaohsiung received the 'excellence in green procurement' award (the second time in a row), from the Taiwan Environmental Ministry. This award has shown the transparency of ASE in its sustainable development programs. ASE Kaohsiung's value of its green procurement amounts to NTD150M in 2012.

ASE adheres to the guidelines stipulated in the 'Industry Environmental Accounting Guide' of the country's Environmental Protection Administration. It is classified into 6 major categories:

- Operation costs
- Vendor and customer-related costs
- Overheads
- R&D costs
- Costs of social programs
- Cost of liabilities and remediation

Social Responsibility/Environmental/Safety Accounting Expenditure 2012



Notes:

1. Environmental - Costs related to the prevention and control of air pollution, conservation of energy and resources, environmental management systems, R&D on minimizing environmental impact.
2. Social responsibility: Costs related to improvement of employee welfare and company-sponsored social programs.
3. Safety & Health: Costs related to programs promoting workplace safety, employee medical and healthy lifestyle programs.

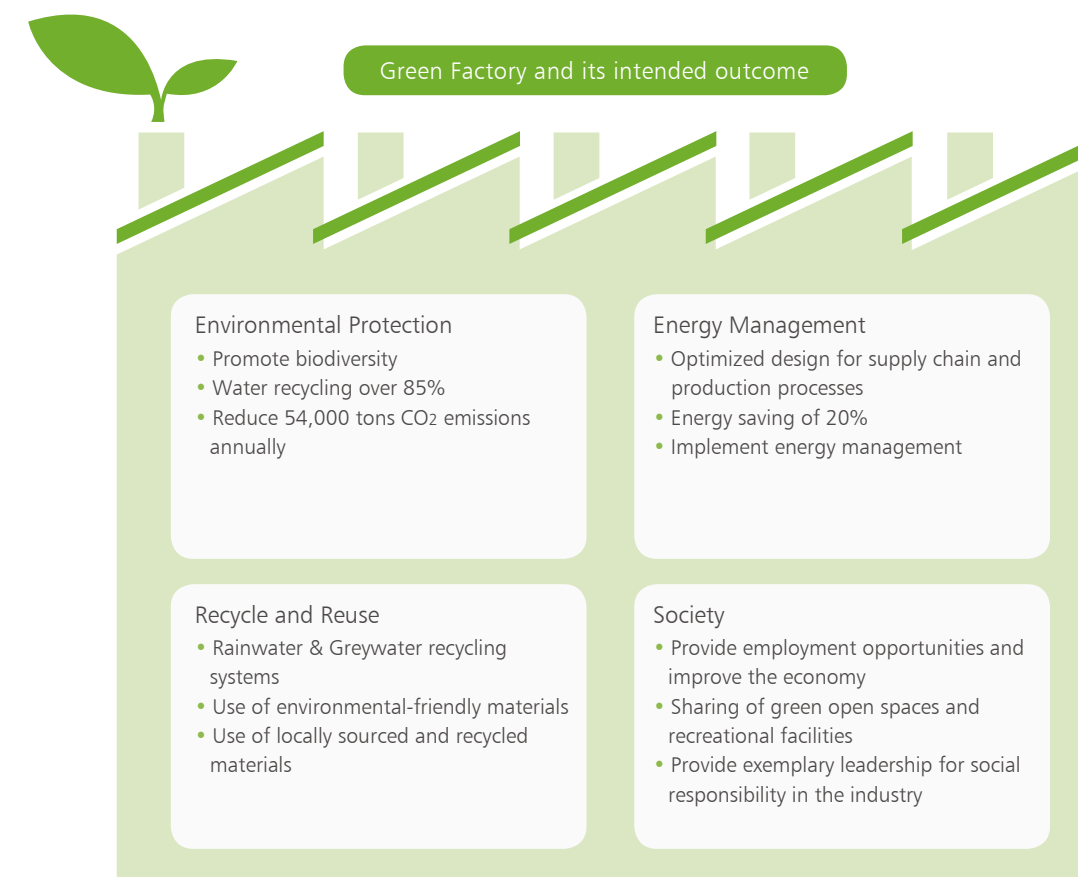


Green Factory

- Incorporating green design concepts and ideals in the construction of factories and surrounding areas for work and living, and in harmony with technology and the eco-environment.

ASE's facilities worldwide are located in areas which do not encroach in the delicate biodiversity of the surrounding environment. Our basis of building factories and facilities lie in the incorporation of green designs, energy, water and resource conservation and environmental-friendliness. We strictly abide by local and international laws and regulations on hazardous emission and pollution controls and provide a safe and healthy environment for work and living.

New facilities built in Kaohsiung and Chungli are constructed following the guidelines under LEED for New Construction building program (US green building certification) and EEWH (Ecology, Energy Saving, Waste Reduction and Health, Taiwan). The ASE Kaohsiung K12 green building has been accorded EEWH diamond status in 2012 and we target to win accreditation in LEED (Leadership in Energy and Environmental Design) platinum status in 2013. Through our conscious green efforts in the planning, construction and maintenance of ASE's buildings and its surroundings, ASE is directly contributing to sustainable development and the community.



ASE Kaohsiung Building K12 and its Green Factory Features

Sustainable education
An educational gallery featuring information on green buildings. Elevators are equipped with monitors featuring information on eco-friendly programs.

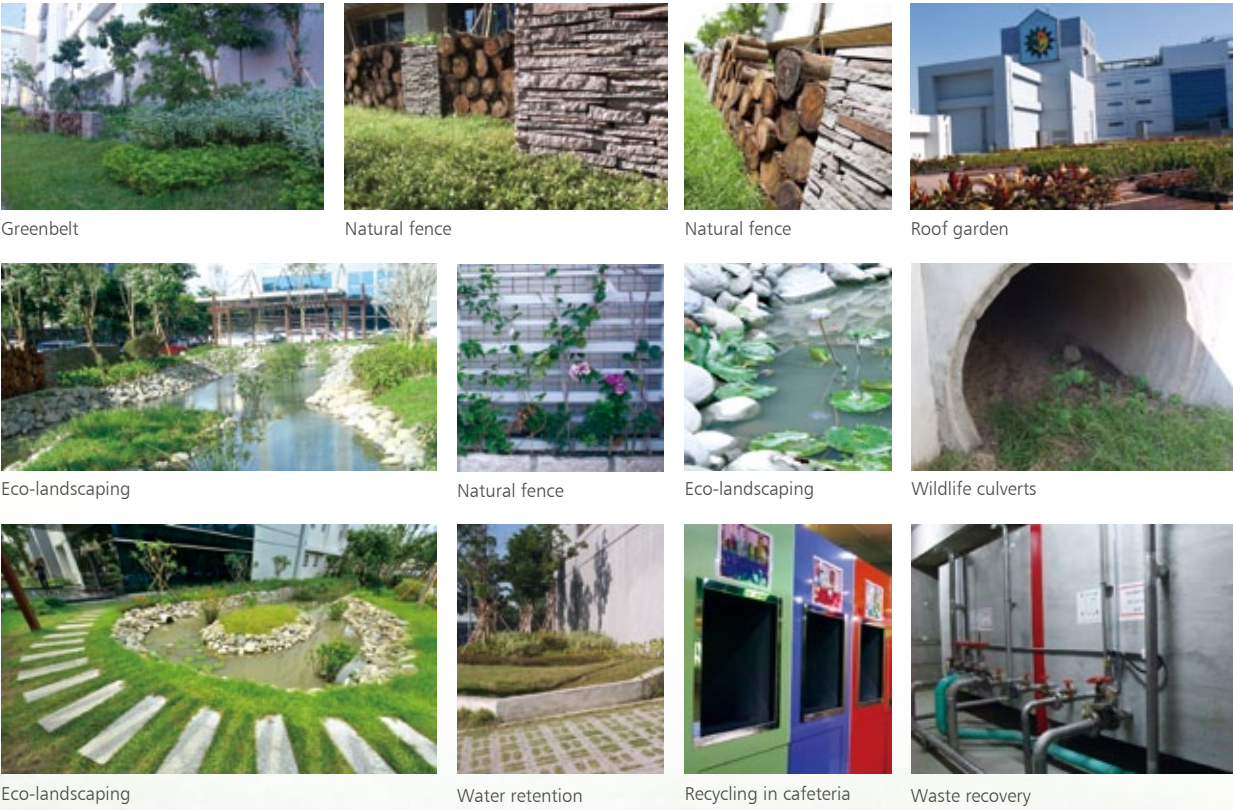
Low carbon footprint transportation
Carpooling, bicycle rentals and bus shuttles to commute from building to building.



Sky garden
Rooftop garden area of 1,000 m². Reduces heat absorption and CO₂ emissions.

Water recycling system
Rainwater & Greywater recycling. Reduces daily consumption of utility water by 30-40%.

Environmental-friendly building materials
Green, local and recycled materials comprise 60% of the total building materials used.



Employee Care

- To administer a system that meets the expectations of social responsibility, protects the rights and welfare of employees, and creates a safe and comfortable workplace
- To improve employees' awareness and competency in sustainable development projects such as environment protection, safety, green products and social responsibility through effective use of training resources and to ensure operational continuity through regular communication and consultation with employees and their representatives

At all ASE locations, we abide by local customs and norms and our hiring guidelines are in line with the country's labor laws. We offer to hire the best talents based on merit and integrate them into a corporate culture that respects our people and take good care of them. Our employees are obliged to undertake strict codes of conduct with respect to work ethics, company-related confidentiality, company assets, non-discrimination, workplace health and safety. It is noted that the company did not receive any reports or incidences of worker abuse or infringement of rights in the fiscal year 2012.

Staff Recruitment and Employment Policies

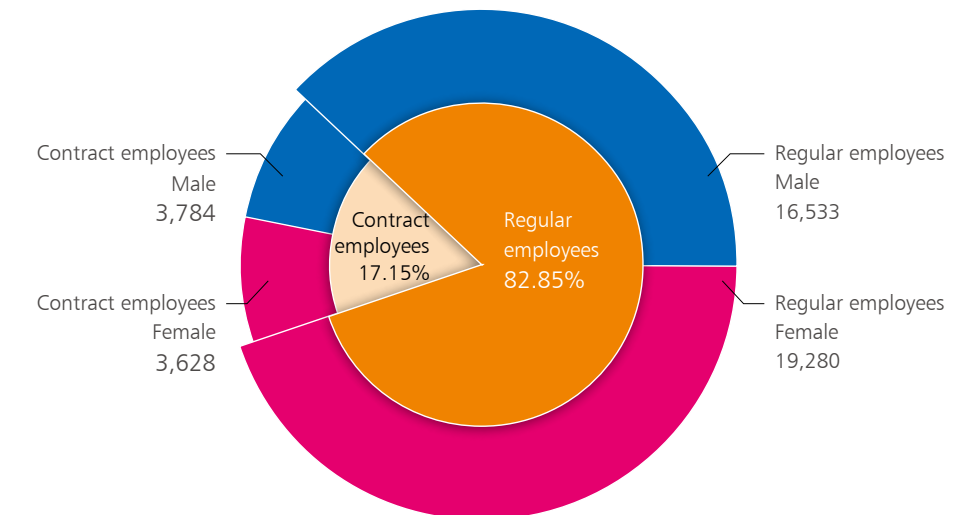
- Observation of labor standards and gender equality in employment to protect the interests of employees, wage rate compliance with local regulatory requirements
- Prohibition of discriminatory treatment based on race, social status, nationality, religion, disability, sexual orientation, union membership, political alliance or age
- Prohibition of child-labor
- We do limit our hiring of young persons to internships where we work with schools and universities on short term programs. These students hired at our facilities do not work shifts and do not work in highly demanding job positions.
- In cases where any major change in work conditions (such as a change in operation location) is required of any employee, at least two weeks' notification and discussion is given to the employee.

Employment status

In recent years, the ASE Group has expanded rapidly with a total headcount worldwide of 43,225 in 2012, where 82.85% are direct labor. We make it a priority to recruit locally (88% of total headcount are locals). Newly recruited employees undergo a comprehensive orientation and training program tailored to help them understand their job scope and integrate quickly within the organization. The human resource department offers different levels of training resources, both inhouse and external, to provide opportunities for employees' career advancement. Employee grooming and welfare is key to retention and attracting greater talent.

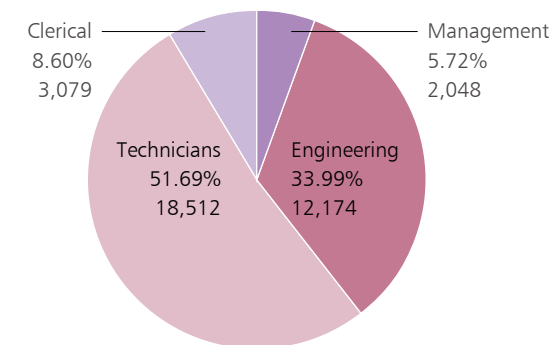
Due to the nature of ASE's business, a large percentage of our employees – 51.69% are hired to work in the production line and are majority female. We also provide fair working opportunities for the disabled. In 2012, we hired 211 employees with varying disabilities. Our facilities in Chung Li, Taiwan; Weihai, China and Takahata, Japan have received local government awards commending their efforts in hiring foreign labor, the physically challenged, enhancing labor relations and promoting social enterprise.

2012 ASE Employment Statistics

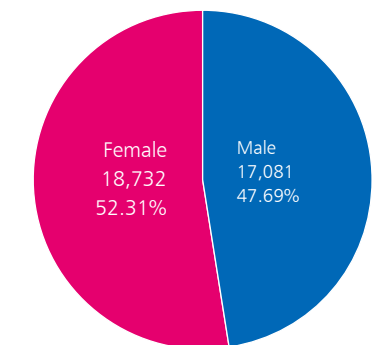


Note: The total number of regular employees includes disabled employees

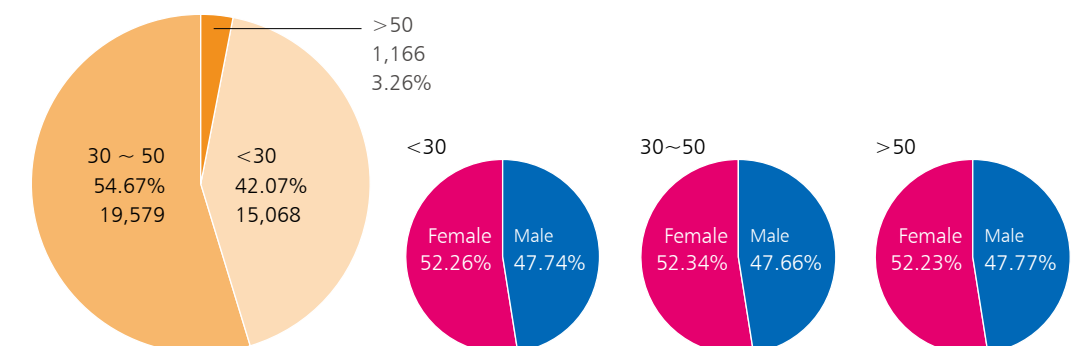
By Function



By Gender

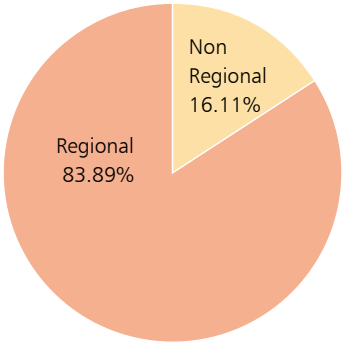


By Age Distribution

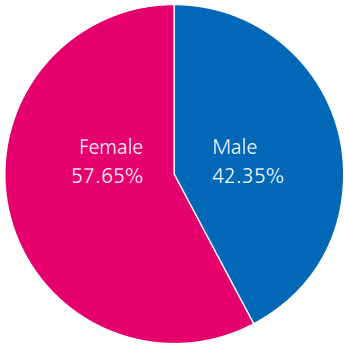


2012 ASE New Employment Statistics

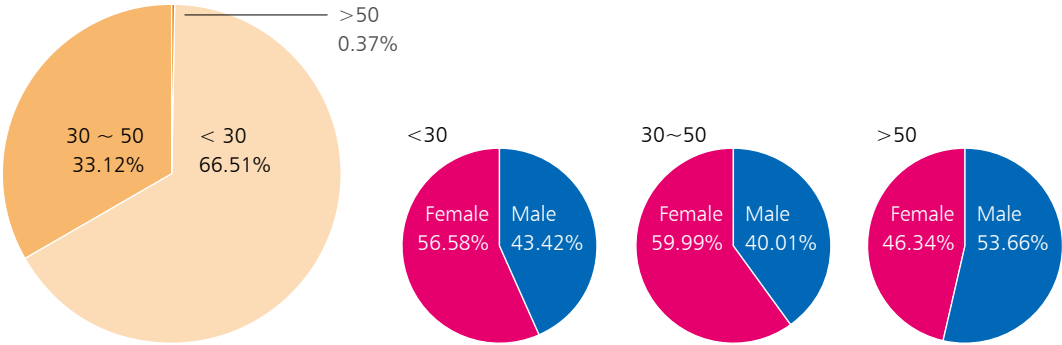
By Regional



By Gender

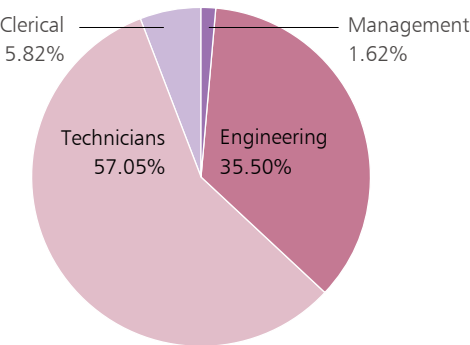


By Age Distribution

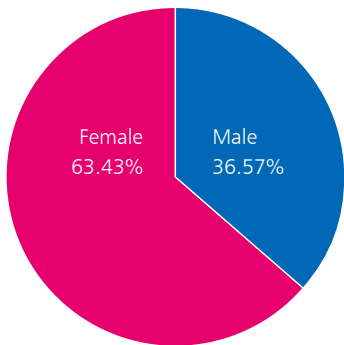


2012 ASE Employee Turnover Statistics

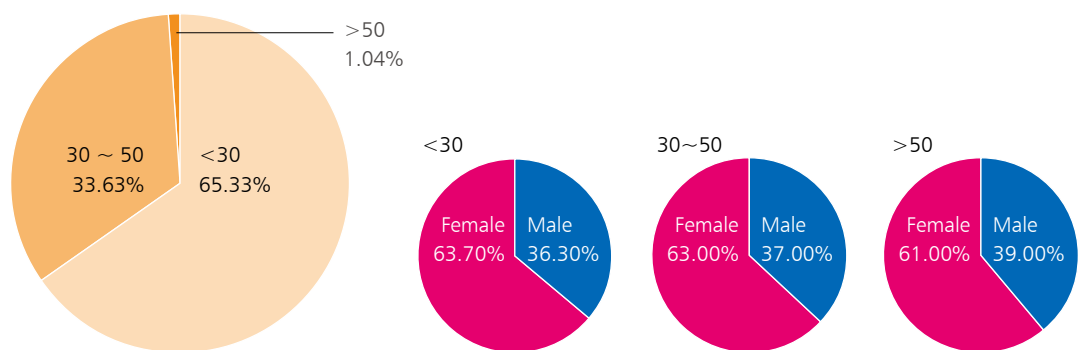
By Function



By Gender



By Age Distribution



2012 ASE Employee Turnover Rate

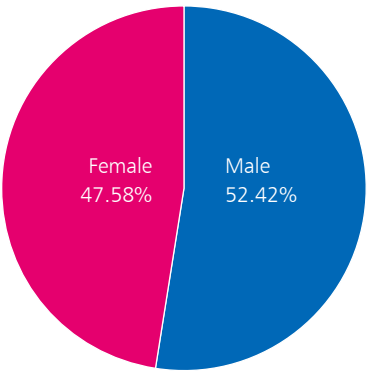
ASEKH	ASECL	ASENT	ASESH (A&T)	ASESH (Material)	ASEKS	ASEN	ASEWH	ASEKR	ASEJP	ASEML	ASESG
1.28%	2.85%	0.42%	2.57%	3.22%	2.92%	1.18%	6.01%	1.47%	0.10%	0.41%	1.78%

Promoting Labor-management Relations

Focusing on harmonious relations between ASE and its employees, the company has entered into a collective agreement with the respective labor unions in ASE Kaohsiung, ASE Weihai, ASE Korea and ASE Japan. In 2012, the number of union employees totaled 17,010, 74.14% of the 4 sites total headcount.

ASE strives to fulfill its social responsibility to employ disabled persons, and arrange appropriate working environment and content according to their physical and mental conditions. Each manufacturing facility and the respective unions also host labor education seminars each year to improve employees' awareness of their rights and knowledge of local labor laws.

Union Employees by Type



Employee Communication Channel

Appropriate communication channels are set up in place to provide employees the opportunity to address their concerns, complaints and feedback to the management. These include the General Manager's mailbox, suggestion boxes at various departments, feedback sessions, bulletin boards, ASE Bulletin, education and training, emails and counseling rooms.

Basic Human Rights

ASE respects every employee's human rights. At ASE Kaohsiung, Chung Li and Korea, we have set up nurseries and nursing rooms. ASE Kaohsiung, Korea and Malaysia also have parking spaces reserved for the pregnant. All employees are entitled to maternity, paternity and parental leave. ASE employees' wages or working hours are based on fair market rates, but not based on the employees' gender, race, religion, political affiliations or marital status.

2012 Number of Employees Applying Maternity, Paternity and Infant-care Leave

Leave type	Maternity/Paternity leave		Infant-care leave	
Gender	Male – paternity	Female - maternity	Male	Female
Subtotal	988	1,671	81	479
Total	2,659		560	

2012 Rate of Return and Retention after Infant-care Leave

		ASE Factories								
		ASEKH	ASECL	ASENT	ASEKS	ASEWH	ASEKR	ASEJP	ASEML	ASESG
Return rate	Male	67%	75%	NA	100%	100%	100%	NA	100%	100%
	Female	92%	85%	100%	67%	97%	53%	100%	100%	100%
Retention rate	Male	83%	83%	NA	59%	100%	100%	NA	100%	100%
	Female	89%	94%	100%	42%	100%	29%	100%	100%	100%

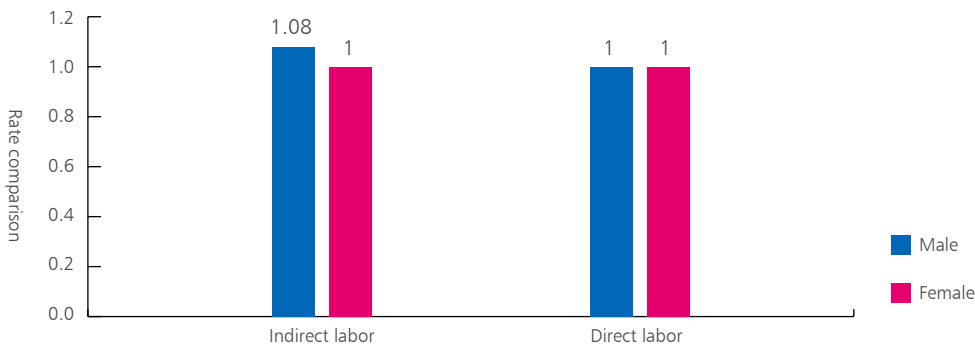
Notes:

1. ASE abides by the local labor laws governing employee’s infant-care leave entitlement. In Shanghai and Suzhou, China, there are no infant-care leave entitlements.

2. NA – no application of infant-care leave recorded in the year

3. Retention rate = No of applicants returning to work for one full year after infant-care leave/ Total number of employees returning to work after infant-care leave

2012 Wages: Rate Comparison between Male and Female Employees



Notes:

1.Wages refer to the fixed monthly amount paid to an employee and does not include money paid for overtime work

2.Employee’s wages are determined by the individual’s job performance and not due to his/her gender, race or religion

3.Direct employees refer to those who participate in on-site manufacturing/operation, such as on-site operator or section chief trainee. Indirect employees refer to those not participating in on-site manufacturing/operation, such as clerical, engineering, planning and design personnel. These figures exclude the wage statistics of those whose level are above managers.

Employee Code of Conduct

To maintain a high standard of discipline and the reputation of ASE, the company has designed a set of employee conduct guidelines, as part of its human resource management. Regardless of where ASE operates, each employee is responsible to conduct his/her job with professionalism and in compliance within legal and ethical standards including the avoidance of any form of corruption, bribery, embezzlement, misuse of company assets, theft of company property or fraud.

Abstract of the Guidelines in the Employee Code of Conduct

- Employees, if having a different opinion from their supervisor, shall find an appropriate time to communicate with the supervisor. The employee should base his/her discussion from an objective standpoint and not criticize the integrity of the supervisor.
- Employees shall attend all meetings on time. If unable to attend, he/she shall appoint a representative to attend on their behalf, inform the representative of the documents and materials to be prepared and notify the chairperson of the meeting beforehand.
- Employees shall, if having a meeting with a vendor that lasts till lunch or dinner, pay for the meal and apply for reimbursement from the company. Employees shall avoid entertaining with vendors.
- Employees shall not remove any product, component or goods of the company out of the premises. For anything that is taken out from the factory, a bonded release bill shall be obtained. Any violation, if found, shall be handled according to applicable laws.
- Employees shall respect the company’s reputation, and shall not deliver their own opinion involving the company to the public without authorization.
- Employees shall cultivate an honest and responsible culture, and shall be committed to the highest ethical standards in all of our business activities.



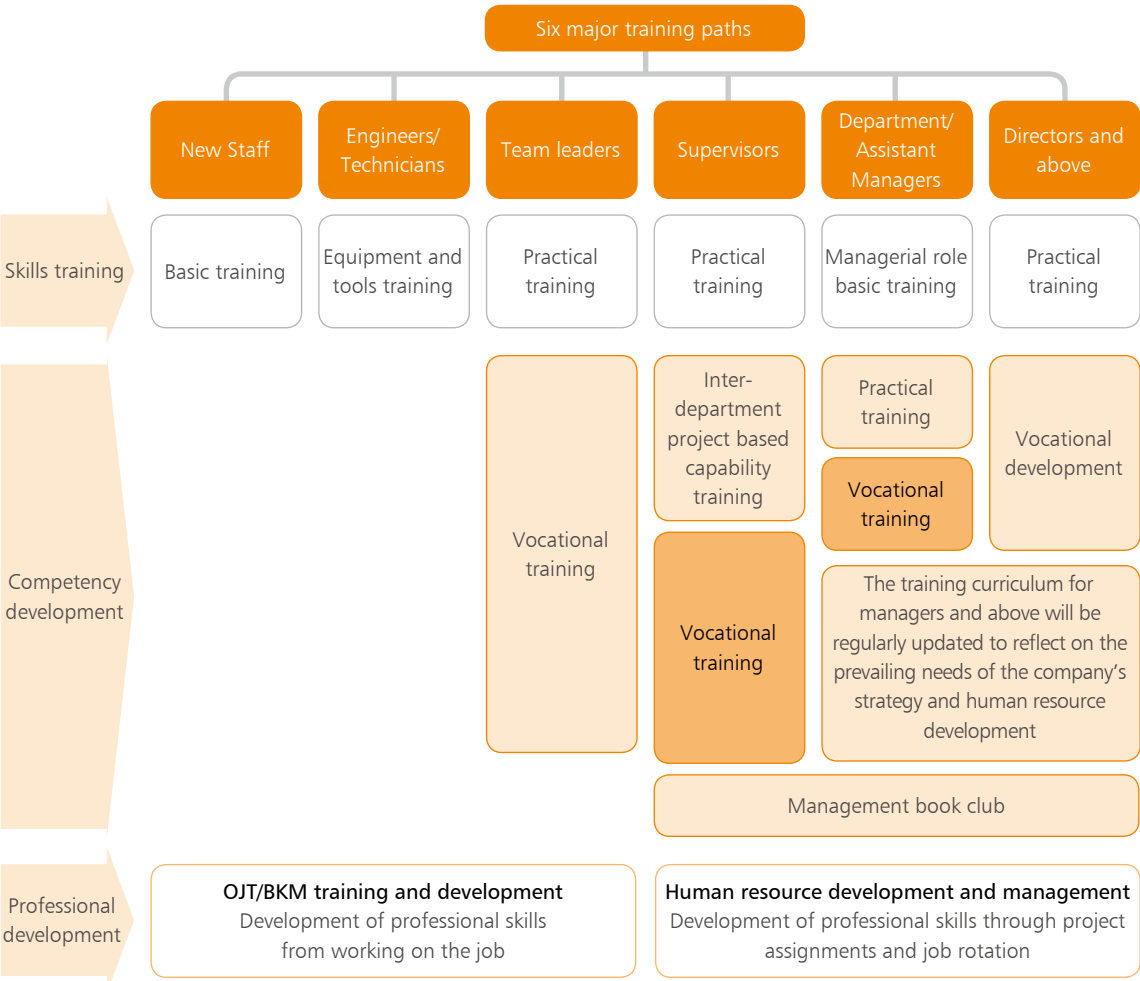
Career Development and Training

- Meet the expectations of all departments’ career development goals and groom all levels of team leaders to become professional managers and experts in their respective fields
- Design a comprehensive resource portal for employees to upgrade and equip themselves with more knowledge for their advancement

We believe firmly in our people as they are the foundation of ASE’s operations. Talented, skilled and committed employees enable ASE’s continuity and success in the business. We put in place various training and educational programs to strengthen our employees’ knowledge, technical expertise, management skills and enhance their personal development. A well-educated and well-trained workforce is the key to ASE gaining a competitive edge in worker retention as well as the ability to offer greater service and better products to our customers.

Human Resource Training Framework

ASE implemented a program approaching 3 levels of job development and six areas of vertical proficiency training paths to ensure that employees obtain appropriate levels of training and provide them the mobility to move on to the next level of career advancement or cross departments for learning new skills. The program aims to recognize the performance and maximize the potential of each employee’s capability and skills. In 2012, ASE Kaohsiung was commended by the Taiwan government’s Labor Committee for innovative human resource development and training programs.



Professional Skills Training

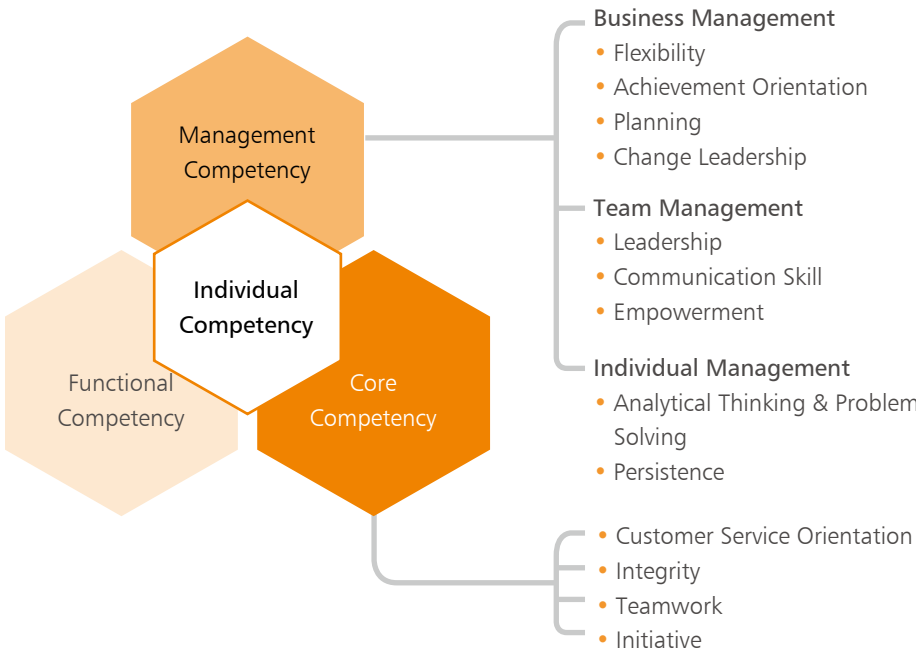
We believe in developing our employees to achieve professionalism in their respective areas and to improve their organizational and leadership skills. The ASE Korea factory works with external consultant companies to offer a wide selection of courses and training materials for its employees. The ASE Malaysia factory further encourages its employees to upgrade their skills and knowledge by sponsoring the course fees for electronics and engineering classes.

Key Attributes of ASE’s Training Policy

- Customized people development courses
- Integrate new staff training and incentive programs
- Combining training and promotion systems
- Integration of employee career development and performance appraisal systems
- Promote industry & university collaboration to design training courses for employee development
- Provide self-improvement courses like languages and business skills
- Groom internal trainers to share their experiences and knowledge
- Create a lively and interactive training program to increase the participation rate of course attendees

E-learning Platform

The ASE Kaohsiung facility has incorporated e-learning into its training systems. All employees can have access to this knowledge platform for their own education at their own convenience. ASE continues to build on this platform to enable sharing of knowledge across all departments.



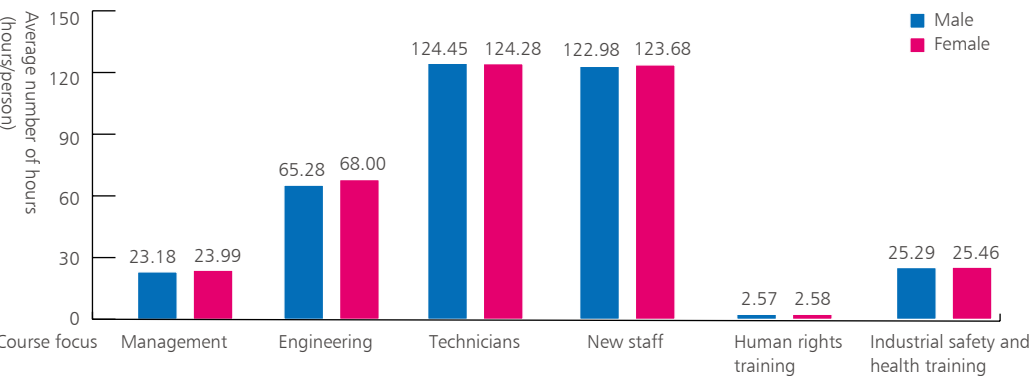
Taiwan TrainQuali System (TTQS)

TTQS is a national program initiated by Taiwan’s Bureau of Employment and Vocational Training. It aims to raise the level of quality training to that of international standards and to strengthen the competitiveness of the country’s workers and productivity. ASE Kaohsiung participates actively in the TTQS Training quality Assessment to progressively enhance the operation efficiency of its manpower training system.

Security Officer Training

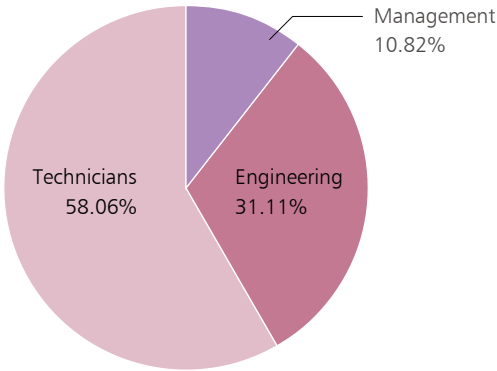
ASE outsources its security needs for its factories to independent professional security companies. As these security officers manage many areas of critical importance to ASE such as the security and safety of the buildings, assets, employees and visitors, we consider them as part of the ASE team. The officers are required to undergo periodic training to ensure that they are well equipped to conduct their job responsibly.

2012 Average Number of Training Hours

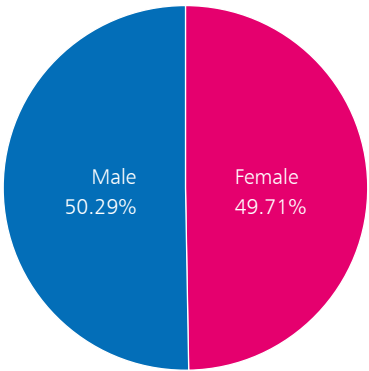


Notes:
1. Source of data – Human Resource Training Department
2. Management – Team leader, supervisor, deputy manager, manager and senior management
3. Human rights training include SA8000 standards and related materials

By Function



By Gender



Employee Welfare

- As a caring employer, ASE offers competitive wages and benefits
- Providing a comfortable work place and prioritizing the welfare of employees and their families

Employee Benefits

- Wages: Performance based increments, bonuses, meal and transport allowances. Employee welfare committee set up to look after other areas of concerns
- Recognize and reward outstanding employees
- Workplace: well renovated work office, parking spaces, female employee nursing room, gym
- Health care and health screening facility (ASE Kaohsiung)
- Day care facility (ASE Chung Li)
- Retirement benefits: Labor Pension Fund Supervisory Committee and labor pension plan set up in compliance with the Labor Standards Law

Massage Center and Nursing Room

To enhance the work environment for employees and to lower the stress levels related to work, many ASE sites have set up inhouse facilities for employee relaxation. At ASE Kaohsiung, employees have access to a massage center, nursing room, gym and recreational room. ASE hires visually handicapped persons who are specially trained as massage therapists at our massage center. Our Kaohsiung, Chung Li, Nantou, Taiwan; Korea and Malaysia facilities have also allocated special private rooms for nursing moms.

Employee Welfare Committee

The committee is specially set up to provide recreational activities and incentives for employees during their leisure time. In 2012, ASE Kaohsiung launched an e-site offering multi-levels of services to employees eg. Discounts and offers at specialty stores, promotion of social events, travel information and even ‘bulk purchase discount’ services.

The welfare committee also provides the following services:

- employee birthday gift, retirement gift
- domestic travel offers
- special discounted tickets
- social events and event organizing
- employee meal services
- others: scholarships for children, retirement parties, bereavement support

Dormitories and Transportation

ASE hires a large and diverse group of employees. At many locations like Kaohsiung, Taiwan; Shanghai and Weihai, China, we have foreign and out of town workers coming to work at our facilities. To minimize their inconvenience and reduce their overhead burden, ASE has provided them accommodation and transport benefits.

Day Care Centers

Establishing a day care center within the ASE campus provides an easy access for employees to leave their young children while they work. The proximity of the day care center helps take the stress and worry off the employees as they can better focus on their job knowing that their young children are well taken care of and close to them.

Retirement Policy

The Labor Pension Fund Supervisory Committee was established by ASE to implement labor pensions in accordance to prevailing labor laws on retirement and compensation.

At retirement, the company will organize for the employee a retirement party, and the employee will be entitled to the retirement year’s company annual bonus, festive bonus for 3 consecutive years and free health screening in ASE Kaohsiung. ASE Shanghai, Kunshan, China; and Japan factories also offer retired employees subsidies for medical care and health insurance.



Safety and Health Management

- ASE is committed to provide employees a safe, comfortable and healthy workplace, in accordance to the laws as well as ASE’s strong corporate safety and health culture

ASE’s safety and health management policy anchors on 3 axes: prevention, early warning and contingency. We conduct risk assessments to identify possible source of risks and take all reasonable measures to eliminate these risks to our employees. Risks are identified in areas such as equipment in operation, hazardous material use, fire and other work areas.



We seek to attain a culture of ‘Excellence in Safety’ and instill safety and health management as a part of the daily operational routine of the company. Due to this strong commitment and systematic execution, the ASE Kaohsiung facility has been awarded by Taiwan’s government Labor Committee, the 5-star labor safety certificate for three years in a row.

Strengthening of factory’s safety & health management

- Factory facilities. Design safety and health standards within acceptable criteria
- Equipment. Procure equipment meeting safety and health benchmarks, strengthen prevention and response mechanisms of high-risk equipment
- Electrical appliances. Organize courses on safety management of such appliances; use of infrared thermal imaging devices to perform routine inspection; develop regular measurement standards for electric power equipment temperature
- Chemicals and hazardous materials. Cautionary and prevention labels clearly displayed in both English and Chinese text; careful storage and segregation of chemicals and hazardous materials; prevention of and handling of any leakage, explosions, fire; install real time monitoring systems and increase the number of fire-fighting equipment in high risk areas
- Loss prevention. Conduct semi-annual risk assessment; day-to-day training and drills; factory wide drills and emergency evacuations
- Emergency response mechanism. Establish a command center to provide a flexible response to crisis
- Abnormal incidents. Thorough investigation on the root cause, and future prevention; establish a procedure to report and record emergencies and abnormalities

Emergency Response and Drills

All ASE factories conduct an annual full scale emergency drill and may also co-operate with local authorities on such an exercise. Various scenarios are simulated at these drills to polish our disaster response plans. A few of our facilities are located in earthquake and typhoon prone areas, and our drills have enabled us to effectively prevent any major damage to human lives, buildings and disruption to production processes.

Fire Drill

Scenario: Over-heated thermal equipment sets off the monitoring alarm and alerted security personnel. The incident is immediately investigated and the level of threat assessed. A command center is then established to proceed with rescue and recovery by deploying and coordinating the following efforts in order to swiftly stabilize the situation and mitigate any further damage:

- Immediate mobilization of the company's 'Fire Brigade' to the scene for first line fire defense
- Next line of 'Recovery Support' team moves in to provide masks, torchlights, breathing apparatus (SCBA) and additional fire extinguishing equipment
- The 'Safety Management' team assists in evacuation of affected personnel and sets up no-entry zones, preventing non-essential personnel from entering the affected area
- Set up a well-staffed 'First Aid' center

2012 Safety Management Index

Frequency severity index (FSI)
With all measures and training put together for the prevention and early warning of accidents and emergency response mechanisms put in place, ASE factories have been able to record a substantially low rate of FSI (frequency and severity index) compared with the overall electronics and components industry average rate

Item	Category		Group Result
Injury rate,IR	Local	Male	1.09
		Female	0.99
	Non-Local	Male	0.04
		Female	0.02
Lost day rate,LDR	Local	Male	25.11
		Female	13.50
	Non-Local	Male	0.10
		Female	1.23
Absentee rate,AR	Local	Male	2,963.55
		Female	6,886.84
	Non-Local	Male	40.02
		Female	1,113.89
Occupational diseases rate,ODR	Local	Male	0.00
		Female	0.00
	Non-Local	Male	0.00
		Female	0.00
Disabling Severity Rate,S.R		Male	12.61
		Female	7.37
Disabling Frequency Rate,F.R		Male	0.56
		Female	0.50
Frequency-Severity Indicator,FSI		Male	0.08
		Female	0.06

Note:
IR= (Total no. of injuries / Total hours worked) × 200,000
LDR= (Total no. of lost days / Total hours worked)×200,000
AR = (Total no. of absentee days over the period / Total no. of workforce days worked for same period)×200,000
ODR= (Total no. of occupational diseases cases / Total hours worked)×200,000
S.R= [(Total days charged) × (10 ^ 6)] / (no. of employee hours)
F.R= [(no. of disabling injuries) × (10 ^ 6)] / (no. of employee hours)
FSI= (F.R*S.R/1000) ^ 1/2

2012 Activities for a Healthy Culture

ASE Healthy Living Walkathon

ASE Kaohsiung and Taiwan Water Corporation collaborated on a walkathon at ‘Cheng Ching’ lake. Approximately 3,500 ASE employees participated in the activity. ASE continues to encourage its employees to partake in such sporting activities to improve their personal health, increase their mental and physical strength, reduce susceptibility to major illnesses and adopt a healthy living lifestyle.



Exercise and Yoga

Various departments start the day by leading their staff with a 5 minute exercise as a daily routine. The recreational club also offers yoga lessons for employees’ participation. These initiatives aim to promote a healthy working environment and to ensure ASE employees are able to balance their work life with a proper dose of exercise. An energized workforce raises productivity and reduces the number of accidents at work.

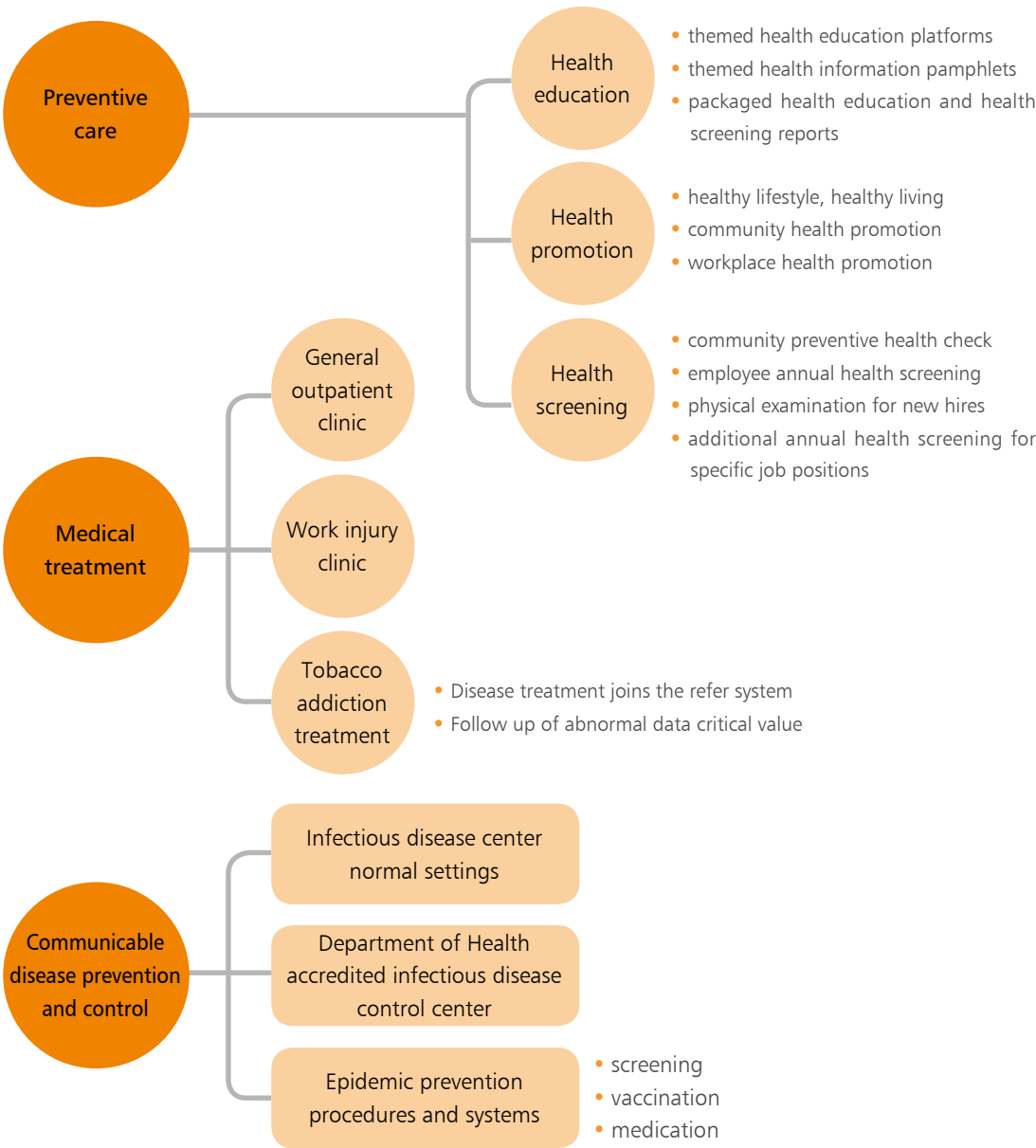


Medical Care and Health Promotion

- To provide all employees with comprehensive medical and health care access

In Kaohsiung, ASE has established within the Nantze Export Processing Zone, an ASE Employee Medical Center. The medical center is fully accredited by the Department of Health and provides employees and their immediate family, access to medical services such as outpatient care (which is also extended to nearby residents), health screening, cancer screening and treatments for tobacco addiction and occupational injury. These efforts to provide integrated medical and health care to employees and sustaining a healthy workplace have won ASE Kaohsiung several merit awards from the Department of Health.

The ASE Medical and Healthcare Framework



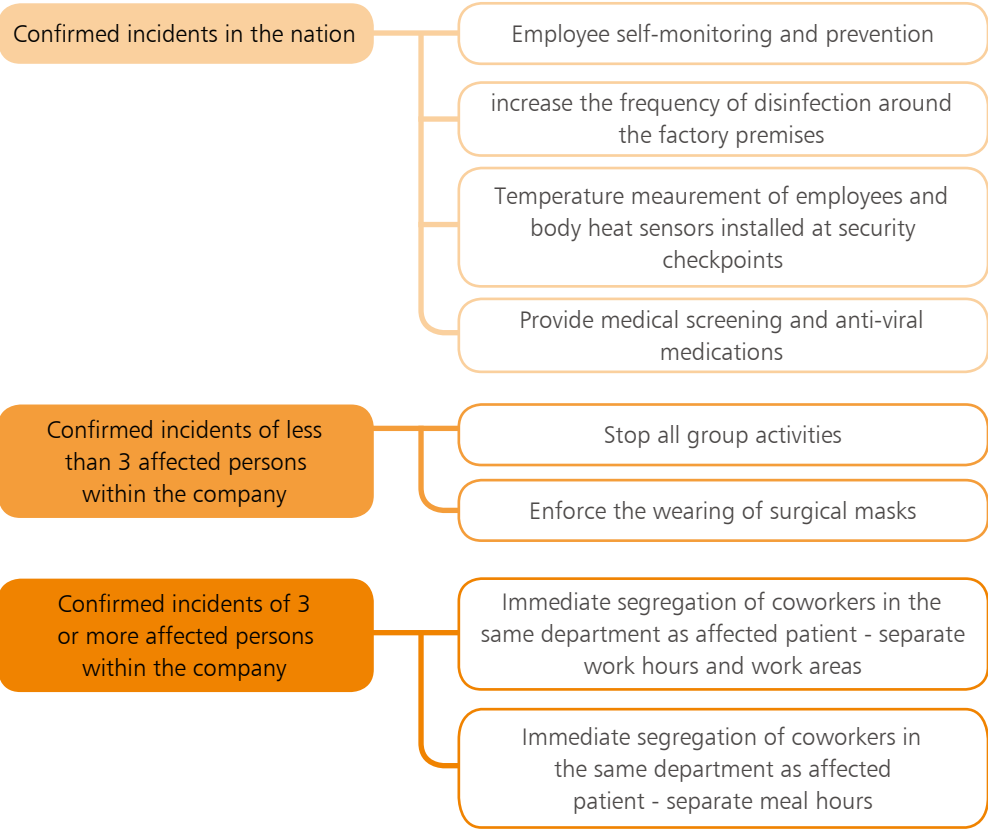
Prevention and Control of Infectious Diseases

As businesses become more global and frequent cross-country travel becomes the norm, the risk of contamination from all sorts of viruses in turn, becomes higher. At ASE, we have developed an ‘infectious diseases’ protocol to educate our employees on flu vaccinations, emergency procedures and business continuity in case of epidemics. In 2012, the ASE Kaohsiung facility established an ‘Infectious Disease Data Collection and Care’ system and working with the Infectious Diseases Control Center, to monitor and aid in controlling and preventing an epidemic outbreak.

ASE’s Framework for the Prevention and Control of Diseases

- Preventive Measures: Establishment of the Infectious Disease Control Center, compile and distribute information on any epidemic outbreak
- Risk Management and Control: ‘Infectious Disease Data Collection and Care’ system, reporting and management of epidemic outbreak and concern for affected patients
- Medical Services: Providing prompt medical screening and dispensing anti-viral medications

Procedures for the Prevention and Control of Diseases



Workplace Health Promotion Activities

Preventive care is paramount to a healthy workforce. In light of this theory, ASE continuously promotes healthy options for its employees including free/subsidized regular health screening. Through a detailed analysis of employees’ health records, the company is able to determine areas of risks and concerns affecting the employees’ health and tailor programs to actively improve their physical wellbeing.



Emergency Care & Resuscitation Services

- The ASE employee clinic is staffed with personnel who are trained in emergency care and resuscitation. These medical personnel are qualified to administer Advanced Cardiovascular Life Support (ACLS). The clinic regularly schedules training and hands on practice to enable prompt response to life threatening medical emergencies.
- On a regular basis, ASE employees are invited to participate in training sessions to learn how to administer CPR, treat someone who is choking and treat superficial wounds etc. Some of our training sessions are also open to the immediate family of employees as well as the general public.
- ASE has a fully equipped first aid and medical supply. We aim to also eventually own an inhouse ambulance to be able to offer immediate assistance in case of emergencies and transport injured or ill patients to seek medical care at hospitals, thereby saving time and lives.





CUSTOMER SERVICE

One of the core business values of ASE is customer service. Besides our ability to offer the best technologies and product quality, customer relationship and their satisfaction are equally important. Prompt service delivery is essential to our business model and our customers rely on us to provide accurate and timely reports on the manufacturing status of their products. Our web-based customer portal offers our customers the following:



ASE Online Customer Service Portal

- Provides production status updates
- Provides delivery dates and status
- Provides integrated design and engineering information
- Enables product information exchange
- Reduce consumption of resources – paper, phone calls, transport etc as information is available instantly online

Besides a dedicated team of Customer Service and Sales personnel serving our customers, we have established an online portal to provide 24/7 service to them. Customers can search and download information from the portal reducing the cycle time and improving efficiency. In 2010, we added information from the Module Business unit onto the portal to enable our customers to view the same type of production & service information available to our other product lines. We recorded a total of 28,659 visits to our portal in 2012.

Customer Satisfaction and Management Approach

Human judgment is a key element that determines the quality of a product. At ASE, our quality policy focuses on our people and we train our people on understanding the importance of quality for success. We incorporate basic quality concepts including:

- Poka-Yoke. Incorporating tools and systems to enable identification and prevention of errors in the manufacturing line
- Training within industry (TWI). TWI helps companies to adopt a lean culture, with programs teaching people on the best way to perform jobs, to think of continuous improvement, and to improve communication and leadership skills
- Failure mode effects analysis (FMEA). Through FMEA, we learn to recognize potential failure of a product/process and its effects, and to provide actions that could help remove or lessen the risk of the failure

We obtain regular feedback from our customers through weekly, monthly and quarterly review sessions to measure our performance in the areas of Q/C/D/S/T (Quality, Cost, Delivery, Service, Technology). Customer feedback, requirements and issues are reported to our management team to ensure that they are promptly addressed and followed through.

ASE promotes a systematic and integrated approach to our manufacturing processes, automating as much process as possible. We adopt the fact and data driven Six Sigma philosophy - DMAIC (Define, Measure, Analyze, Improve, Control), to drive our quality and service standards in manufacturing, technology, products and customer service. In 2012, our customer service satisfaction rate is above 80%.



Customer Satisfaction Survey - Targets & Results

ASE Sites	ASEKH	ASECL	ASENT	ASESH (A&T)	ASESH (Material)	ASEKS	ASEN	ASEWH	ASEKR	ASEJP	ASEML	ASESG
2013 Target	88%	92%	80%	75%	100%	85%	86%	75%	100%	100%	85%	80%
2012 Actual	80%	91%	80%	70%	90%	80%	80%	67%	90%	84%	80%	84%

2012 Customer Awards

Customer	Award Type
Alchip	Alchip VIP Award Value Innovation Partner 50 Million SoC Delivery Milestone
CSR	Strategic Partnership Award 3 Billion Connectivity Chips Shipped
Lantiq	Best supplier of The Year 2012
Maxim	Being one of the top strategic partners
QUALCOMM	Outstanding support 3Q12
Silicon Image	Special Recognition Award presented to ASE Meeting business critical deliveries of ABBY through Outstanding partnership and support
SMIC	Excellent Service Provider Award
SMSC	Supplier of the Year 2011
VITESSE	2011 Supplier Excellence award
NXP	A manufacturing partner that have demonstrated excellence in quality, delivery & service
Texas Instruments	Quality Excellence Award



Customer Intellectual Property and Information Confidentiality

The protection of our customer's product design, IP and other confidential information is one of primary importance at ASE. We established a document control center to store and manage the exchange of data between ASE and the customer. To ensure greater protection, access to these data is limited to personnel who have appropriate security clearance and on a need-to-know only basis. In 2012, there were no known reports or cases of breaching customer confidentiality.

Framework for the handling of customer IP and confidential information

Internal: PIP secure data entry

External: Non-disclosure agreement (NDA) signed between customer and ASE

Supply Chain Information Management

Vendors are required to sign a confidentiality agreement and green products warranty statement, together with a purchase agreement. The purchase agreement outlines specifications and liability within legal boundaries to ensure that goods and services provided are within guidelines, and that both ASE and our customers' data are well protected.



SUPPLIER COMMUNICATION AND SUPPLY CHAIN MANAGEMENT

ASE embodies the concept of 'symbiotic co-operation' with our suppliers in order to promote a mutually beneficial relationship supporting each other in developing a socially responsible and sustainable enterprise.

Mutual support: sharing of resources and guidance in green supply chain management
Collaboration: reciprocal exchanges and learning to raise the level of competitiveness
Reciprocal support: industry benchmark of a socially responsible and sustainable enterprise



Supplier Management

- Support local suppliers and the growth of the local economy
- Establish a green semiconductor supply chain cluster

Our suppliers are also our partners and we expect them to offer fair and equal terms to the employees they hire. We do not condone the use of child or forced labor and would remove any supplier guilty of such infringements. ASE all critical suppliers need to complete "Supplier Sustainability Development Questionnaire" and pass the sustainable evaluation. ASE's regular audit is in compliance with ASE suppliers sustainability management requirements. ASE "Supplier Sustainability Development Questionnaire" includes Environmental Management System, Environmental Sustainability, Carbon Inventory and Reduction Plan, Risk management of Supplier and Contractor, Business Continuity Management, Health and Safety, Social Responsibility Management System and Social Responsibility.

ASE supports the use of local suppliers and promotes the growth of the local economy. In recent years, our local suppliers have grown to almost 70% of the total number of suppliers. Communication with our suppliers is also key to our partnership, and in 2012, we recorded a total of 369 supplier meetings.

2012 Supply chain management indices

	Suppliers	Contractors
Annual audit frequency	145	800
Meeting frequency	369	369

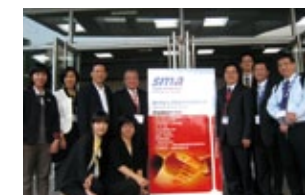


Green Supply Chain Management

- Integration of the supply chain to create a platform for green product development and greater opportunities for green sustainable development
- Linking all supply communication and logistics platforms to reduce operation costs and the risk of material shortages

Supply Management Alliance (SMA)

The SMA is an alliance established by ASE, ITRI and Taiwan's Supply Management Institute, capitalizing on Taiwan's leadership as the semiconductor logistics hub and to further promote the operations of semiconductor assembly and test logistics. The alliance has successfully established a semiconductor A&T e-Hub and a model for supply chain integration and optimization. Over 263 suppliers including A&T service providers, material, MRO (maintenance, repair and operations) suppliers, IC design companies, system houses, IT service providers and logistics companies have been included in the alliance, setting a platform for standardization of logistics support structures.



Building a Green Supply Chain

ASE Kaohsiung and Chung Li facilities have supported suppliers in their efforts to reduce greenhouse gas, carbon and water footprint. In the near future, we will build a database to manage our supply chain in order to step up efforts on sustainable development. At the same time, we encourage all our suppliers to incorporate into their management and operation policies, environmental protection standards especially RoHS, and ensuring that they use non-hazardous materials in their production processes.

Carbon/Water Footprint Audit

- establish a supply chain database
- continuous efforts to reduce the harmful impact of products on the environment
- require suppliers to qualify alternative materials
- ensure that raw materials, production processes and transportation modes meet the requirements of customers and regulatory norms and expectations

Green Procurement Policy

- Select environmentally friendly suppliers
- Consideration of environmental factors when making purchase decisions
- Reduce the volume of material usage
- Increase recycling rate and reduce wastage

Supply Chain Operations e-Hub

- Establish a collaboration platform to reduce the risk of a supply chain disruption
- Reduce the overall inventory within the supply chain
- Shorten the delivery cycle time and provide on-time service

Conflict Minerals Policy

- Complete supplier survey on the disclosure on conflict minerals
- To include in the procurement guide on the prohibition of conflict minerals
- Regularly conduct due diligence with suppliers to ensure compliance on the prohibition of conflict minerals

Statement on Conflict Minerals

Policy: Ensuring that the raw materials used at ASE is not derived from conflict minerals or derivative metals sourced from mines in conflict zones

Conflict minerals are mined under conditions of armed conflict and human rights abuses, most notably in the Democratic Republic of Congo. The main types are gold, tantalum, wolframite and cassiterite. Many of these mines are run by armed groups and rebels using the proceeds from the sale of the minerals to finance their war and weaponry. In the midst, they illegally force the civilians to work at the mines or recruit them into the army. Many of these civilians are young children. The armed groups enforce their rule through fear and violence that resulted in many killings.

Suppliers to ASE are required to show proof that they have developed policies and documented their efforts to prevent any use of conflict minerals. Smelters that produce tantalum, tin, tungsten or gold metals will require EICC/GeSI Conflict Free Smelter (CFS) certification. On an annual basis, ASE requires that key suppliers be audited and verified for compliance.



Contractor Management

- **safety partnership targeting ‘zero disasters’**
- **exemplary leadership in CSR**

ASE and its contractors, adopting the concept of ‘zero disasters’ at the workplace; continue to work closely in a symbiotic relationship that is geared towards a socially responsible enterprise.

- Security partnership: Provide guidance to contractors and subcontractors to build a complete security management framework
- Security officers: Promote initiative in health and safety management ensuring all aspects of security is well taken care of
- Conduct monthly assessment on performance to ensure ‘zero disasters’ management
- Conduct regular communication meetings
- Online management platform
- Health and safety training required for any personnel working on site
- Enhance the frequency of safety audits at work places; requiring contractors with high incidences of safety violations to make immediate improvements

ASE-Contractor Partnership

To enhance Contractor management, ASE Kaohsiung in recent years, has taken the leadership and initiative to support its vendors in attaining OHSAS 18001 (Occupational Health and Safety Management System) certification. To date, more than 50% of its key vendors have attained the certification. In 2012, ASE Kaohsiung implemented a program to include security defence management system awareness with its vendors. Up to 70% of the vendors have participated in the ‘Security defence team self-management’ program.

Comprehensive Contractor Management System

ASE established an online management system that automated the registration of visitors, security clearance and information exchange. Contractors are requested to ensure only authorized personnel are permitted to enter ASE premises to conduct pre-approved work. Regular screening of visitors’ credentials is conducted to ensure no breach of security guidelines is encountered.

Recognition and Awards Ceremony

In recognition and appreciation of outstanding performance, ASE organizes an award ceremony annually for our contractors. We award outstanding contractors for their contribution to the safety and security of ASE and recognize them as true co-working partners.



SOCIAL PARTICIPATION & Feedback



Education-Industry Collaboration

Every year, ASE works with academic institutions nationwide and funds various projects to educate students on semiconductor technology and manufacturing. ASE also sponsors scholarships for meritocratic students to pursue college degrees and academic research.

Cooperating with government departments, ASE also participates in the professional training programs, providing real life work situations for students to experience. In 2012, ASE Kaohsiung provided 200 internship positions for programs such as 'industry master degree courses', 'semiconductor courses' and 'on the job training courses'.

Barrier-free Employment Opportunities

We believe that the youth is the pillar of society and ASE provides various opportunities to the young people seeking employment. The ASE Kaohsiung and Korea factories work with local colleges on collaboration programs such as dual systems training (vocational and practical training), apprenticeships and internships. These programs help ASE to recruit people equipped with the basic skill sets and provide greater job opportunities to the graduating students. It also narrows the gap between theoretical learning and real life work scenarios.



Supporting Local Academic Institutions

ASE regularly invites academics and students from local universities and colleges to visit our facilities, to provide them insights on the manufacturing and operations of the semiconductor assembly and test industry. Our management team also volunteers or accepts invitations to conduct talks in universities and colleges, sharing with the students on the experiences, strategies and career opportunities at ASE and within the semiconductor industry.



Community Engagement and Contribution

Traditional Culture: Dragon Boat Race

The Dragon Boat festival and the dragon boat race are celebrations unique to the local Chinese culture. In 2012, ASE Kaohsiung employees formed a team to compete in the Kaohsiung international dragon boat racing championships and won several awards in the various categories of the race.



Sponsorship of Cultural Activities

On an annual basis, the ASE charity foundation provides sponsorships for programs and activities promoting culture and exchange. In 2012, it spent USD230,000 and co-sponsored programs such as the 'Chinese cultural conference', 'South Taiwan cultural and economic alliance' and the 'international Chinese youth baseball league foundation'.

Social Work

Community involvement is an integral part of ASE's corporate social responsibility culture. We are consciously aware that there are many disadvantaged and marginally displaced persons that require financial aid and support to survive. ASE, in its various locations worldwide, organizes several programs and fund raising activities in aid of old folks' homes, orphanages, hospices, the handicapped etc.

2012 Programs

- ASE Kaohsiung has contributed to the set-up of an emergency care and support group; job placements for the disabled; lunchbox subsidies; after-school care for special needs children; donation of medical supplies
- ASE Korea has set up a community care committee to extend aid to the local orphanage, the elderly living alone and children with special needs
- ASE Japan has set up the Yamagata Funds in aid of the handicapped and the disabled elderly and children
- ASE Singapore is a supporter of the 'yellow ribbon' project that helps ex-offenders rebuild their lives after serving their prison terms. Other projects include support for young cancer patients and the disabled.





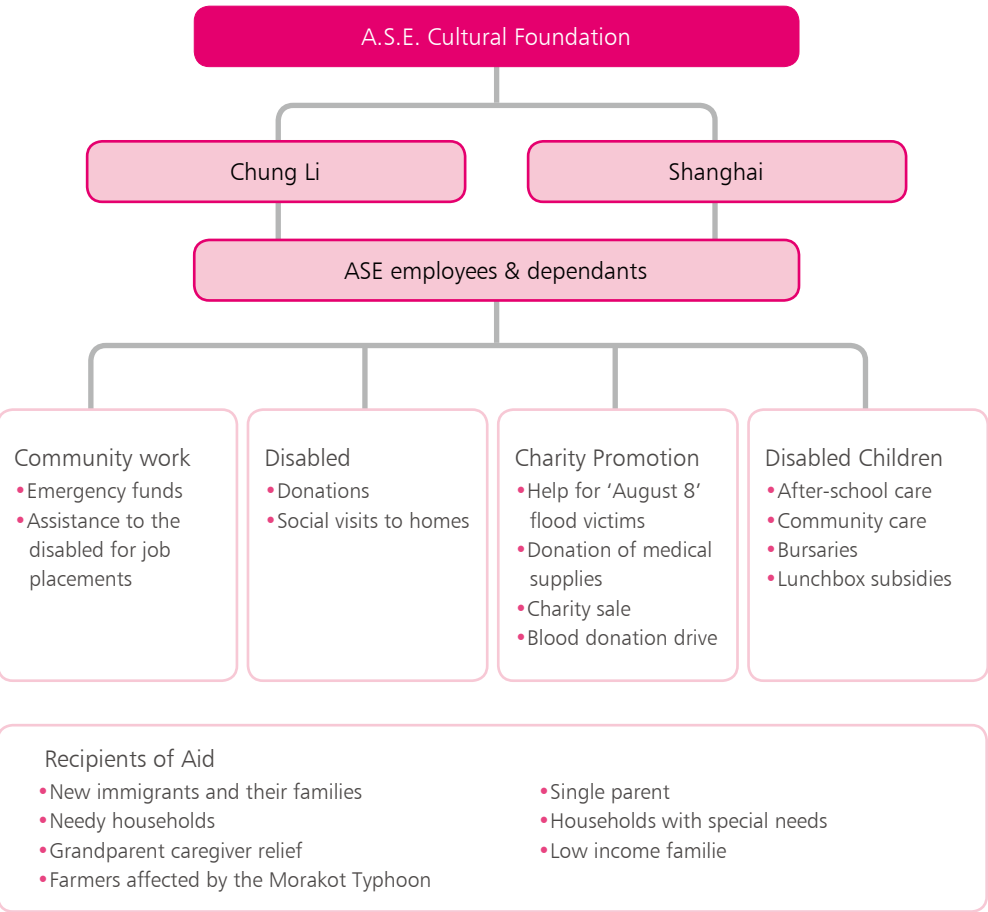
Charity and Social Work

Fostering a culture of Caring and Giving

The ASE Charity Foundation Volunteer Service Team was established in 1986 and has since then been supporting charitable causes nationwide. The foundation has also extended its support across the Taiwan straits to meaningful projects initiated by our Shanghai facility. ASE employees devote their own personal time to volunteer themselves for social causes supported by the ASE foundation.

2012 Donation Amounts (USD)

ASEKH	ASECL	ASESH	ASEKS	ASEWH	ASEKR	ASEJP	ASEML	ASESG	Group total
830,120	27,550	11,623	809	8,030	100,000	747	667	3,000	982,546



Organic Farming – ASE Green Store

- Providing a permanent retail store for the local farmers dislocated by the Morakot typhoon disaster (August 8, 2009) to sell their organic produce and byproducts
- Providing work opportunities for the physically and mentally disabled
- Providing ASE employees and the neighboring residents access to fresh and healthy organic produce
- Promoting community and enterprise co-operation

Supporting Under-privileged Children

- After-school day care center
- Character building
- Home visits and counseling
- Parent-child bonding activities
- School bursaries and subsidized lunch boxes

ASE employees volunteering at the foundation provide after-school tutoring for children in care centers, help to pick the children from school, teach extracurricular skills and accompany social workers to visit families in emergency. The students accepting services from the foundation in turn serve as 'little care volunteers', helping to clean the neighborhood after school or during summer/winter vacation.

In 2012, a total of 936 children were cared for by the above programs. Our volunteer service team spent 3,265 hours to support the programs.



贈攜帶式超音波
高雄榮總 讓愛到澎湖

財團法人日月之光慈善事業基金會贈送價值十五萬的攜帶式超音波乙台予高雄榮總，並於101年4月21日舉行捐贈儀式。由該院黃榮慶院長親自接受，黃院長表示今年該院正準備實施醫療巡迴服務時，發現攜帶式超音波已經老舊，有些影像有點模糊，為了澎湖鄉親的健康起見，正籌劃購買較輕便好攜帶且影像較好的超音波，剛好此時日月之光慈善事業基金會蔡天仁執行長來訪，黃院長聊起此事，執行長即表示該基金會王永順董事長一定樂意協助，所以利用此機會特別感謝王永順董事長協助。

天仁執行長的幫忙，這也是澎湖鄉親的福音。黃院長又指出該院平時發在高雄市、屏東縣各地區實施巡迴診，爾後再與榮慶醫院將更前往臺北、彰化、越南、等地區實施巡迴醫療服務，以造福國內外更多偏遠弱勢群眾。王永順董事長表示，該基金會的服務宗旨，是取之社會，用之社會，只要幫助需要幫助的人，該基金會都樂於協助。黃院長特別以感謝狀對贈日月之光慈善事業基金會王永順董事長，感謝該基金會的善舉。

攜帶型超音波捐贈儀式
捐贈單位：財團法人日月之光慈善事業基金會
受贈單位：高雄榮民總醫院

2012/04/21 10:00



ASE Group – Corporate Milestones

- 1984
- The founding of ASE
- 1987
- Shipped PGA and PPGA packages in volumes to US and European markets
- 1989
- ASE listed on the Taiwan Stock Exchange (TAIEX)
- 1990
- Acquired a Test facility in Kaohsiung – ASE Test
- 1991
- Established ASE Penang
- 1996
- ASE Test Limited listed on NASDAQ – first Taiwanese company to be listed on the US exchange
 - Established ASE Materials
- 1998
- ASE Test listed on TAIEX
 - Established flip chip packaging and test capability
- 1999
- Acquired Motorola’s backend facilities in Chung Li, Taiwan and Paju, Korea
 - Acquired ISE Labs in Fremont, CA, USA – a front-end engineering test facility
- 2000
- ASE Inc listed on the New York Stock Exchange (NYSE)
 - Volume production of flip chip packages
- 2001
- Established Chung Li intelligent park to enhance a turnkey production experience for customers
 - Completed a 300mm wafer bumping production line
- 2003
- Joint venture with Compeq to establish a center for the design and production of interconnect materials
 - Volume production of 300mm wafer bumping. Became the world’s largest independent IC assembly and test service provider
- 2004
- Acquired NEC’s backend facility in Yamagata, Japan
 - Established IC substrates and module production facility in Shanghai, China

- 2005
- Volume production of WLCSP
- 2006
- ASE Test merges with ASE Inc, delisting of ASE Test on NASDAQ
 - Record revenue of \$3.1B
 - Joint venture with Powerchip to establish memory IC assembly and test facility - PowerASE
- 2007
- Joint venture with NXP Semiconductors in Suzhou, China - ASEN
 - Renamed assembly and test operations (GAPT) in Shanghai to ASE Shanghai
- 2008
- Revenue in China surpassed \$50M
 - Acquired discrete manufacturing facility in Weihai, China – ASEWH
 - Development in copper wire bonding technology
- 2009
- Over 50 customers adopted and converted to ASE’s copper wire bonding process
 - Volume production of aWLP, aQFN
- 2010
- Acquired local test house - EEMS Singapore Pte Ltd, further strengthening ASE’s IC testing foothold in Singapore
 - Completed total purchase of Universal Scientific Inc (USI) under the ASE Group
- 2011
- Established Kunshan, China – adding further assembly and test capacity in China
- 2012
- Acquired Yang Ting in Taichung, Taiwan – discrete IC packaging facility



2008-2012 Awards and Recognition from Government and National/International Authoritative Bodies

2008

ASE Kaohsiung - SA 8000 certification
ASE Kaohsiung – Outstanding enterprise award
ASE Chungli – TOSHMS certification

2009

Integrated Circuit Product Category Rule (IC PCR) published by ASE
Semiconductor IC EPD, Carbon footprint published by ASE
ASE Kaohsiung – national workplace safety excellence award
ASE Kaohsiung – national workplace health excellence award
ASE Kaohsiung – TOSHMS certification
ASE Kaohsiung - ISO 14064 certification
ASE Shanghai – workplace safety award
ASE Shanghai – workplace health award
ASE Shanghai - TS-16949 certification
Listed among Taiwan's top 70 enterprises in 'corporate social responsibility'
ASE Weihai - ISO 14001 certification

2010

ASE Kaohsiung – commended for water and electricity conservation
ASE Kaohsiung – commended for supporting subway transportation for employees
ASE Korea – commended for excellence in workforce welfare and environmental protection
ASE Weihai - OHSAS 18001 certification
ASE Weihai – EU supplier award
ASE Group - Taiwan Institute for Sustainable Energy (TAISE): CSR Report Award '4th place'
ASE Chungli - ISO 14064-1 certification
ASE Chungli - SA 8000 certification

2011

Ranked number 12 in Wealth magazine (Taiwan)'s Top 50 outstanding enterprise
ASE Kaohsiung – Green procurement excellence award
Ranked number 6 (Asia category) and number 3 (Taiwan category) in Businessnext Magazine's Top 100 tech companies
ASE Group - Taiwan Institute for Sustainable Energy (TAISE): CSR Report Award '4th place'
Received Taiwan Green Product award for IC assembly
Received Taiwan Innovators award
ASE Kaohsiung – TTQS training gold medal
ASE Kaohsiung – GHG reduction/Cleaner production/water conservation awards
ASE Kaohsiung - AEO(Authorized Economic Operator) recognition

2011

ASE Kaohsiung – recycling/workplace excellence/workplace health promotion/ environmental-friendly culture awards
ASE Weihai - QC 080000 certification
ASE Shanghai – Pudong 'commitment to environmental protection' award
ASE Shanghai – cleaner production enterprise
ASEN (Suzhou) – energy conservation award
ASE Korea - TS16949, QC 080000 certification
ASE Kaohsiung - EICC VAP
ASE Kunshan – environment protection enterprise award

2012

ASE Group - Taiwan Institute for Sustainable Energy (TAISE): CSR Report Award '3rd place'
ASE Kaohsiung – workplace health excellence award
ASE Kaohsiung – Green procurement excellence award
ASE Kaohsiung – recycling/workplace excellence/workplace health promotion/ environmental-friendly culture awards
ASE Kaohsiung - ISO 50001 certification
ASE Kaohsiung – Workplace excellence award, HR award
ASE Chungli - EICC VAP
ASE Chungli - Foreign workers employment recognition award
ASE Chungli - Minority workers employment recognition award
ASE Japan - Disabled workers employment recognition award
ASE Kunshan – Safety workplace enterprise recognition
ASE Shanghai – Pudong 'commitment to environmental protection' award
ASE Korea – workplace safety award
ASE Weihai – employer/union relationship recognition
ASEN (Suzhou) – high tech enterprise recognition

INDEPENDENT ASSURANCE OPINION STATEMENT

2012 ASE Group CSR Sustainability Report

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

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

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

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

Scope

The scope of engagement agreed upon with ASE includes the followings:

1. The assurance covers the whole report and focus on systems and activities during the 2012 calendar year on the ASE headquarter and relevant operations including ASE Inc. (Kaohsiung, ChungLi, Nantou), ASE Test Inc. (Kaohsiung, ChungLi), and ASE Electronics Inc. in Taiwan, as well as ASE Assembly & Test (shanghai) Limited, ASE (Shanghai) Inc., ASE (Kunshan) Inc., Suzhou ASEN Semiconductors Co., Ltd., ASE (Weihai) Inc. in China, ASE (Korea) Inc., ASE Japan Co., Ltd., ASE Electronics (M) Sdn. Bhd and ASE (Singapore) Pte. Ltd., but not including local offices and subsidiaries around the United States.
2. The evaluation of the nature and extent of the ASE's adherence to all three AA1000 AccountAbility Principles in this report as conducted in accordance with type 1 of AA1000AS (2008) assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

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

Opinion Statement

We conclude that the 2012 ASE CSR Sustainability Report Review provides a fair view of the ASE programmes and performances during year 2012. We believe that the 2012 economic, social and environment performance indicators are fairly represented.

Our work was carried out by a team of (CSR) report assurors in accordance with the AA1000 Assurance Standard (2008). We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that ASE's description of their approach to AA1000 Assurance Standard and their self-declaration of compliance with the GRI guidelines were fairly stated.

Methodology

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

- Review of issues raised by external parties that could be relevant to ASE's policies to provide a check on the appropriateness of statements made in the report
- Discussion with managers and staff on ASE's approach to stakeholder engagement. However, we had no direct contact with external stakeholders
- Interviews with 21 staffs involved in sustainability management, report preparation and provision of report information were carried out
- Review of key organizational developments
- Review of the findings of internal audits
- Review of supporting evidence for claims made in the reports
- An assessment of the company's reporting and management processes concerning this reporting against the principles of inclusivity, materiality and responsiveness as described in the AA1000 AccountAbility Principles Standard (2008)

Conclusions

A detailed review against the AA1000 AccountAbility Principles of Inclusivity, Materiality and Responsiveness and the GRI G3.1 guidelines is set out below:

Inclusivity

ASE continually commits to its stakeholders in this report and has been set up the group-level social responsibility policies. The effort has been shown in conducting the participation of stakeholders for developing and achieving an accountable and strategic response to CSR. The 2012 report reflects this. The reporting systems are being developed to deliver the required information. There are fair reporting and disclosures for economic, social and environmental information in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the ASE's inclusivity issues.

Materiality

ASE has prioritized the issues which were identified by all departments according to the extent of impact and applicable criterion for sustainable development of company. ASE also has been established comparable and specific CSR objectives base on the result of materiality analysis. Therefore, material issues were completely analyzed and the relative information of sustainable development was disclosed to enable its stakeholders to make informed judgments about the company's management and performance. In our professional opinion the report covers the ASE's material issues.

Responsiveness

ASE has continuously committed to implement the CSR practice and demonstrate relative performance information to respond to the expectations and perceptions of its stakeholders as appropriate. In our professional opinion the report covers the ASE's responsiveness issues; however, the future report should be further enhanced by the following areas:

- Show how ASE uses its claimed leadership position to influence others
- Encouraging to work towards a Type 2 of AA1000AS (2008) engagement with a view to providing the reliability of sustainability performance information that stakeholder concerns.

GRI-reporting

ASE provided us with their self declaration of compliance within GRI G3.1 Guidelines and the classification to align with application level A+. Based on our review, we confirm that social responsibility and sustainable development indicators with reference to the GRI index are reported, partially reported or omitted. In our professional opinion the self declaration covers the ASE's social and sustainability issues. As in this report, extended indicators are fairly disclosed than it requests in the application level A of GRI G3.1 guideline; however, the future report will be improved by the following areas:

- Continuously improving the management of human rights to other business partners.

Assurance level

The moderate level assurance provided is in accordance with AA1000 Assurance Standard (2008) in our review, as defined by the scope and methodology described in this statement.

Responsibility

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

Competency and Independence

The assurance team was composed of Lead Auditors and Carbon Footprint Verifiers experienced in engineering sector, and trained in a range of sustainability, environmental and social standards including AA1000 AS, ISO14001, OHSAS18001, ISO14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:



Peter Pu
Managing Director BSI Taiwan
01 May, 2013

Taiwan Headquarters: 5th Floor, No. 39, Ji-Hu Rd., Nei-Hu Dist., Taipei 114, Taiwan, R.O.C.

BSI Taiwan is a subsidiary of British Standards Institution.

bsi.



AA1000
Licensed Assurance Provider
000-4

Global Sustainability Report Indicators GRI G3.1

The sustainability report has been prepared in accordance with the guidelines stipulated by the Global Reporting Initiatives - GRI G3.1.

GRI Guidelines	Disclosure Level	References (pages)
1. Strategy and Analysis		
1.1 Statement from the most senior decision maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy	F	3~9
1.2 Description of key impacts, risks, and opportunities	F	17~18
2. Organizational Profile		
2.1 Name of the organization	F	10
2.2 Primary brands, products, and/or services	F	10~13
2.3 Operational structure of the organization	F	10~12
2.4 Location of organization's headquarters	F	10
2.5 Number of countries where the organization operates	F	11~12
2.6 Nature of ownership and legal form	F	14~16
2.7 Markets served	F	14
2.8 Scale of the reporting organization including number of employees, revenues, market capitalization and countries/region served	F	11~17
2.9 Significant organization changes during the reporting period	F	No significant changes
2.10 Awards received in the reporting period	F	73~74
3. Report Parameters		
3.1 Reporting period	F	1
3.2 Date of most recent previous report	F	1
3.3 Reporting cycle	F	1
3.4 Contact point for questions regarding the report or its contents.	F	1, 86
3.5 Process for defining report content	F	22
3.6 Boundary of the report	F	1~2
3.7 State any specific limitations on the scope or boundary of the report	F	1~2
3.8 Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities	F	1~2
3.9 Data measurement techniques and the bases of calculations	F	2
3.10 Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	F	No re-statement
3.11 Significant changes from previous reporting periods	F	1
3.12 Table identifying the location of the Standard Disclosures in the report	F	77~85
3.13 Policy and current practice with regard to seeking external assurance for the report	F	75~76
4. Governance, Commitments, and Engagement		
4.1 Governance structure of the organization	F	9
4.2 Indicate whether the Chair of the highest governance body is also an executive officer	F	9, 16

GRI Guidelines	Disclosure Level	References (pages)
4.3 For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members	F	16
4.4 Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	F	22
4.5 Linkage between compensation for members of the highest governance body, senior managers, and executives and the organization's performance	F	16
4.6 Processes in place for the highest governance body to ensure conflicts of interest are avoided	F	16
4.7 Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committee	F	16
4.8 Internally developed statements of mission or values, codes of conduct, and principles	F	3~6
4.9 Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance	F	19~20
4.10 Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	F	9
4.11 Explanation of whether and how the precautionary approach or principle is addressed by the organization	F	19~20
4.12 Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	F	22~24
4.13 Memberships in associations and/or national/international advocacy organizations	F	23~24
4.14 List of stakeholder groups engaged by the organization	F	22
4.15 Basis for identification and selection of stakeholders with whom to engage	F	22
4.16 Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	F	22~23
4.17 Key topics and concerns that have been raised through stakeholder engagement	F	22~23
Economic		
DMA Disclosures on Management Approach	F	16~20
EC1 Direct economic value generated and distributed	F	17
EC2 Financial implications and other risks and opportunities for the organization's activities due to climate changes	F	17~19
EC3 Organization's defined benefit plan obligations	F	52~53
EC4 Significant financial assistance received from government.	F	17
EC5 Range of ratios of standard entry level wage by gender compared to local minimum wage	P	47

GRI Guidelines	Disclosure Level	References (pages)
EC6 Policy, practices, and proportion of spending on locally-based suppliers	F	63
EC7 Procedures for local hiring and proportion of senior management hired from the local community	F	42~45
EC8 Development and impact of infrastructure investments and services provided primarily for public benefit	F	67~70
EC9 Understanding and describing significant indirect economic impacts, including the extent of impacts	F	26~33
Environmental		
DMA Disclosures on Management Approach		5~9, 23~25
EN1 Materials used by weight or volume	F	37
EN2 Percentage of materials used that are recycled input materials	F	37
EN3 Direct energy consumption by primary energy source	F	26~31
EN4 Indirect energy consumption by primary source	F	26~31
EN5 Energy saved due to conservation and efficiency improvements	F	29~31
EN6 Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives	F	29~31
EN7 Initiatives to reduce indirect energy consumption and reductions achieved	F	29~31
EN8 Total water withdrawal by source	F	31
EN9 Water sources significantly affected by withdrawal of water	F	31
EN10 Percentage and total volume of water recycled and reused	F	31
EN11 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	F	40
EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	F	40
EN13 Habitats protected or restored	F	40~41
EN14 Strategies, current actions, and future plans for managing impacts on biodiversity	F	40~41
EN15 Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	F	40
EN16 Total direct and indirect greenhouse gas emissions by weight	F	32~33
EN17 Other relevant indirect greenhouse gas emissions by weight	F	32~33
EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved	F	32~33
EN19 Emissions of ozone-depleting substances by weight	F	26,33
EN20 NOx, SOx, and other significant air emissions by type and weight	F	26
EN21 Total water discharge by quality and destination	F	31

GRI Guidelines	Disclosure Level	References (pages)
EN22 Total weight of waste by type and disposal method	F	27~28
EN23 Total number and volume of significant spills	F	27
EN24 Weight of transported, imported, exported, or treated waste deemed hazardous	F	27
EN25 Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff	F	31
EN26 Initiatives to mitigate environmental impacts of products and services	F	25~33
EN27 Percentage of products sold and their packaging materials that are reclaimed	F	37
EN28 Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	F	26
EN29 Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	F	33
EN30 Total environmental protection expenditures and investments	F	39
Labor Practices and Decent Work		
LA1 Total workforce by employment type, employment contract, and region, broken down by gender	F	43~45
LA2 Total number and rate of new employee hires and employee turnover by age group, gender, and region	F	45
LA3 Benefits provided to full-time employees	F	52~60
LA4 Percentage of employees covered by collective bargaining agreements	F	46
LA5 Minimum notice period(s) regarding operational changes	F	42
LA6 Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	F	54~57
LA7 Rates of injury, occupational diseases, lost days, and absenteeism, and number of work related fatalities	F	56
LA8 Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	F	57~60
LA9 Health and safety topics covered in formal agreements with trade unions	F	57~60
LA10 Average hours of training per year per employee by gender, and by employee category.	F	51
LA11 Programs for skills management and lifelong learning	F	49~51
LA12 Percentage of employees receiving regular performance and career development reviews, by gender	F	44

GRI Guidelines	Disclosure Level	References (pages)
LA13 Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	F	44
LA14 Ratio of basic salary and remuneration of women to men by employee category	F	47
LA15 Return to work and retention rates after parental leave, by gender	F	47
Human Rights		
HR1 Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening	F	No significant investments
HR2 Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken	F	63, 66
HR3 Total hours of employee training on policies and procedures concerning aspects of human rights	F	42, 51
HR4 Total number of incidents of discrimination and corrective actions taken	F	42
HR5 Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights	F	46
HR6 Operations and significant suppliers identified as having significant risk for incidents of child labor and measures taken to contribute to the effective abolition of child labor	F	63
HR7 Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor and measures to contribute to the elimination of all forms of forced or compulsory labor	F	63
HR8 Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations	F	51
HR9 Total number of incidents of violations involving rights of indigenous people and actions taken.	F	No incidents recorded
HR10 Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments	F	16
HR11 Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	F	42~43
Society		
S01 Percentage of operations implemented with local community engagement, impact assessments, and development programs	F	67~70
S02 Percentage and total number of business units analyzed for risks related to corruption	F	17

GRI Guidelines	Disclosure Level	References (pages)
S03 Percentage of employees trained in organization's anti-corruption policies and procedures	F	42, 48
S04 Actions taken in response to incidents of corruption	F	19
S05 Public policy positions and participation in public policy development and lobbying	F	21~24
S06 Total value of financial and in-kind contributions to political parties, politicians, and related institutions	F	69
S07 Anti-competitive behavior, anti-trust, and monopoly practices	F	No incidents recorded
S08 Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations	F	14
SO9 Operations with significant potential or actual negative impacts on local communities	F	26~37
SO10 Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities	F	25~38
Product Responsibility		
PR1 Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	F	33~37
PR2 Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle	F	Compliant
PR3 Type of product and service information	F	33~37
PR4 Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling	F	Compliant
PR5 Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	F	61
PR6 Programs for adherence to laws, standards, and voluntary codes related to marketing communications	F	61~62
PR7 Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications	F	Compliant
PR8 Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	F	Compliant
PR9 Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services	F	34

Disclosure level : F = Fully disclosed; P= Partially disclosed; N= None.

83

APPENDIX

✓

List of topics and references corresponding to ISO 26000
Guidance on Social Responsibility

Topics		References (pages)
Organizational Governance	Decision-making processes and structures	9,14~16
Human Rights	Due diligence	14~20
	Human rights risk situations	42,48
	Avoidance of complicity	5
	Resolving grievances	46
	Discrimination and vulnerable groups	42
	Civil and political rights	46
	Economic, social and cultural rights	46,57,67~68
	Basic rights at work	42,49~50
Labor Practices	Employer-employee relationships	42,46,48
	Work conditions and protection	42,46
	Dialogue exchange	23
	Health and safety	54,60
	Workplace personnel development and training	49~51
Environment	Pollution prevention	25~41
	Sustainable resource usage	25~41
	Mitigation of climate change impact	19~20, 25~41
	Protection of the environment, biodiversity and restoration of natural habitats	40~41
Fair Operations	Anti-corruption	19
	Political involvement	67~70
	Fair competition	14~16
	Promoting social responsibility in the value chain	19,67~70
	Respect for property rights	38,62
Consumer Issues	Fair marketing, factual and unbiased information and fair contractual practices	2~16
	Protecting consumers' health and safety	ASE is a contract manufacturer and does not produce products directly for consumer use

Topics		References (pages)
Consumer Issues	Sustainable consumption	61~62
	Consumer service, support, and complaint and dispute resolution	61~62
	Consumer data protection and privacy	62
	Access to essential services	61~62
	Education and awareness	61~62
Community Involvement and Development	Community involvement	67~70
	Education and culture	67~70
	Employment creation and skills development	67, 70
	Technology development and access	3~6
	Wealth and income creation	17
	Health	70
	Social investment	69

References corresponding to the United Nations Global Compact Principles

Topics	Principles	References (pages)
Human Rights	Businesses should support and respect the protection of internationally proclaimed human rights	14, 42, 46, 48
	Ensure that they are not complicit in human rights abuses	42,48
Labor	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	42~46
	Elimination of all forms of forced and compulsory labor	37,42
	Effective abolition of child labour	42
	Elimination of discrimination in respect of employment and occupation	42
Environment	Businesses should support a precautionary approach to environmental challenges	25
	Undertake initiatives to promote greater environmental responsibility	25~41
	Encourage the development and diffusion of environmentally friendly technologies	38
Anti-corruption	Businesses should work against corruption in all its forms, including extortion and bribery	18~19

ASE Worldwide Directory

Manufacturing Sites

ASE Kaohsiung No. 26, Chin 3rd Road Nantze Export Processing Zone Kaohsiung, Taiwan Tel: +886.7.361.7131	ASE Japan 1863, Ooazairyuda, Takahata-machi Higashiokitama-gun Yamagata 992-0324, Japan Tel: +81.238.57.2211	North America Northern California 1255 E. Arques Ave. Sunnyvale, CA 94085, USA Tel: +1.408.636.9500
ASE ChungLi 550, Section 1, Chung Hwa Road Chungli, Taiwan Tel: +886.3.452.7121	ASE Malaysia Phase 4, Bayan Lepas Free Trade Zone 11900 Penang Malaysia Tel: +60.4.644.8555	Southern California 5251 California Avenue, Suite 220 Irvine, CA 92617, USA Tel: +1.949.725.2300
Nantou, USI 141, Lane 351, Taiping Road, Sec. 1 Tsao Tuen, Nan-Tou, Taiwan Tel: +886.49.235.0876	ASE Singapore 2 Woodlands Loop Singapore 738074 Tel: +65.6631.4499	San Diego, California 5405 Morehouse Drive, Suite 245 CA 92121, USA Tel: +1.858.795.6980
ASE Shanghai (A&T) No. 669 Guoshoujing Rd. Zhangjiang Hi-Tech Park, Pudong New Area Shanghai 201203, P.R.C. Tel: +86.21.5080.1060	ISE Labs, Inc. 46800 Bayside Parkway Fremont, CA 94538 USA Tel: +1.510.687.2500	Austin, Texas 4635 Boston Lane, Suite 200 Austin, Texas 78758, USA Tel: +1.512.538.6000
ASE Shanghai (Material) No. 2300 Jin Ke Rd. Zhangjiang Hi-Tech Park, Pudong New Area Shanghai 201203, P.R.C. Tel: +86.21.5080.5888		Boston, Massachusetts 18 Commerce Way, Suite 2900 Woburn, MA 01801, USA Tel: +1.978.578.5197
ASE Kunshan No. 373, SongNan Road QianDeng Town, Kunshan City JiangSu Province 215341, P.R.C. Tel: +86.512.5528.8888	Sales Offices & Services Centers	Tempe, Arizona 7855 South River Parkway, Suite 212 Tempe, AZ 85284, USA Tel: +1.480.718.8000
ASE Weihai Hainan Road 16-1 Economic development Zone exports processing Zone of Weihai Shandong 264200, P.R.C. Tel: +86.631.591.5000	Taiwan Hsinchu 6F-1, No. 120, Sec.2, Gongdaowu Rd., Hsinchu City 300, Taiwan Tel: +886.3.575.3375	Raleigh, North Carolina 1710 East Bromfield Drive Hillsborough, NC 27278, USA Tel: +1.919.542.0446
Suzhou ASEN Semiconductors 188 Su Hong Xi Road, SIP Suzhou 215021, P.R.C. Tel: +86.512.6725.1788	Korea 4F, Luther Bldg, 7-20 Shincheon, Songpa, Seoul, 138-240, Korea Tel: +82-70-7834-0687	Europe Brussels, Belgium Waterloo Office Park - Building M Dreve Richelle161 Box 23 B-1410 Waterloo, Belgium Tel: +32.2.554.0375
ASE Korea 494, Munbal-ri, Dyoha-myun. Paju-shi Kyungi-do, Korea Tel: +82.31.9400.535	Japan Yokohama 10F. Sumitomofudosan Bldg., 2-5-5, Shin-Yokohama, Kohoku-ku, Yokohama, 222-0033 Japan Tel: +81.45.478.7300	