

2017 CSR Report



About this Report

Following the first report published in 2015, this is the second issue of the Corporate Social Responsibility (CSR) report of ISU PETASYS.

Overview

ISU PETASYS strives to communicate with its stakeholders and maintain and improve its socially responsible management through the transparent disclosure of information on its CSR activities and performance. Particularly, this year's report has added a new section of business value creation in line with management strategies, and also highlighted the management activities connected to economic value creation.

Reporting Standards

This report was prepared in accordance with the 'Core Option' of Global Reporting Initiative (GRI) G4 Guidelines, and referred to ISO 26000, the international standard of social responsibility, and to <IR> Framework of International Integrated Reporting Council.

Reporting Period and Coverage

This report focused on the company's CSR activities and performance from January 1 to December 31, 2016. However, the quantitative performance covered the past three years and monetary data is based on the average exchange rate of 2016 (USD 1=KRW 1,160), and some qualitative performance and modifications included those of the first half of 2017. This report mainly dealt with the performance of local operations, and that of some affiliates was separately specified (if any).

Report Assurance

This report was verified by an independent third-party assurance provider to ensure the reliability and quality of the information presented. The details of the independent assurance statement can be found in the Appendix.

Contact for additional information on the report

www.petasys.com	Tel. +82-53-610-4538
Planning & Cooperation team	E-mail. jsj1050@isu.co.kr

TABLE OF CONTENTS

About this Report

CEO Message	02
-------------------	----

CSR Overview

Company Profile	04
Ethical Management	07
Corporate Governance	08
CSR Strategy and Operating System	10
Stakeholder Engagement and Materiality Assessment	14

CSR Strategy & Performance

Business Value	18
Human Rights & Labor	23
ESH (Environment · Safety · Health)	28
Fair Operating	34
Product & Customer	39
Community Involvement & Development	43

Appendix

GRI Content Index	48
Third Party Assurance Statement	52
UN Global Compact Principles	53
Memberships & Association	53

CEO MESSAGE



Dear stakeholders,

Commemorating the publication of the second issue of CSR report, I would like to express my sincere gratitude to all of you who have continued to show support for ISU PETASYS. Recently, the 4th industrial revolution has emerged as a key word, intensifying competition to capture new markets. In this regard, ISU PETASYS is exploring the new markets and also strengthening its socially responsible management to pursue something beyond financial value.

As the world's leading ultra-multilayer PCB provider, ISU PETASYS has produced PCBs used in network equipment, server/storage, and automotive, and continued its growth based on the production facilities at home and abroad. Despite the prolonged economic stagnation and competitive business environment, ISU PETASYS is strengthening its competitiveness through continuous R&D, market development, and stabilization of quality.

The concept of sustainable development through competitiveness enhancement has been more advanced by integrating corporate management with socially responsible management. ISU PETASYS manages the CSR Key Performance Indicator (KPI) in the areas of human rights and labor, environment and health, fair business operations, product responsibility and customer, and participation in local communities, to prevent potential risks and promote business value. Recognizing that truly socially responsible management is based on the communication with stakeholders, the company strives to disclose information transparently for enhanced communication. The first-ever CSR report of ISU PETASYS received the Chairman of Korea Chamber of Commerce and Industry (KCCCI) Award at the 4th 'the Most Loved Companies in Korea' in November 2016, and the report of this year has enriched the communication with stakeholders by adding the contents of business value creation. ISU PETASYS will continue to transparently disclose its business activities and performance and listen to the voices of internal and external stakeholders.

ISU PETASYS has positioned itself as one of the world's leading PCB providers through continuous technology innovation, and will move toward the right direction based on the constant communication with stakeholders. I ask for your interest in and support for ISU PETASYS which aims at becoming a global corporation growing together with society based on technologies enriching the world and quality of excellence.

Thank you.

A handwritten signature in black ink, appearing to read 'Sung-Min Kim', with a stylized, cursive script.

ISU PETASYS CEO Sung-Min Kim

Company Profile

Overview

ISU PETASYS is the world's leading ultra-multilayer Printed Circuit Board (PCB) provider, producing PCBs used in network equipment, server and storage, and supercomputer. The company has several subsidiaries, which specialize in producing consumable PCBs and FPCBs, located at home and abroad.

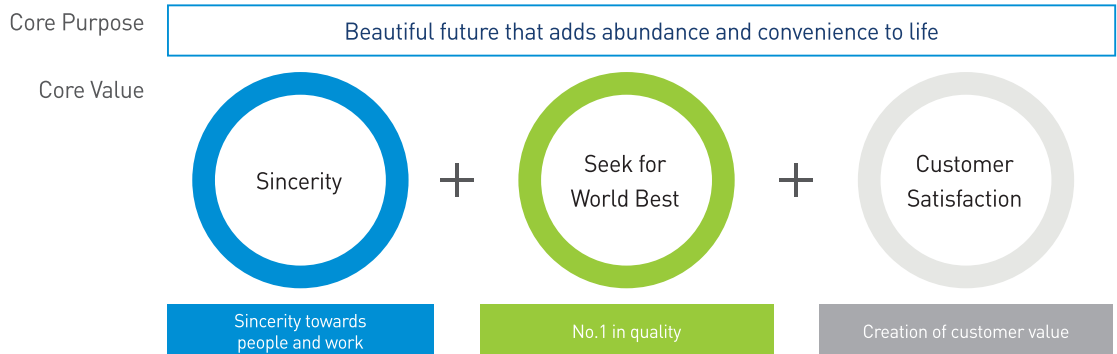
Company Name	ISU Petasys Co., Ltd
CEO	Sung-Min Kim
Date of Foundation	February 1972
Main Business	PCB(Printed Circuit Board) production and sales
Location	Head Office 36, Nongong-ro 53-gil, Nongong-eup, Dalseong-gun, Daegu, Korea Seoul Office 84, Sapyeong-daero, Seocho-gu, Seoul, Korea
No. of Employees	853 (As of December 2016)
Capital Stock	USD 34 million
Sales	USD 478 million (based on Account Settlement in 2016)
Affiliated Companies	ISU Exaboard Co., Ltd., ISU Petasys Corp., ISU Petasys Asia Limited

History

1900s	2000s	2010s
1972. 02 Company Established	2000. 08 Listed on KOSDAQ	2011. 04 Founded ISU EXAFLEX
1989.06 Started PCB business	2000. 09 Founded ISU PETASYS AMERICA	2011. 12 Received a presidential citation of Win-win labor-management
1995. 11 Incorporated into ISU Group	2003. 10 Listed on KOSPI	2011. 12 Selected "World Class Product of Korea (Ultra-multilayer PCB)"
1998. 06 Built the second factory	2004. 11 Founded ISU EXABOARD	2013. 04 Decorated for employment promotion for the disabled
	2008. 01 Acquired "Advanced Level Technology Company" certification of CISCO	2013. 11 Founded ISU PETASYS HUNAN
	2008. 10 Received "Supplier of the year" award from CISCO	2014. 10 ISU EXABOARD merged ISU EXAFLEX
	2009. 10 Received "Supplier of the year" award from CRAY	2016. 11 Government award for "The Most Loved Companies in Korea" (CSR)
		2017. 07 Selected representative company of employment-friendly

Management Philosophy

Based on sincerity, challenge, and customer satisfaction as the core values of business activities, ISU PETASYS is making every effort to create a beautiful future adding abundance and convenience to life. Sincerity to make the best products, constant innovation and challenge for self-improvement, and customer satisfaction through the provision of better value are all being realized throughout the business activities of the company.



Business Strategy

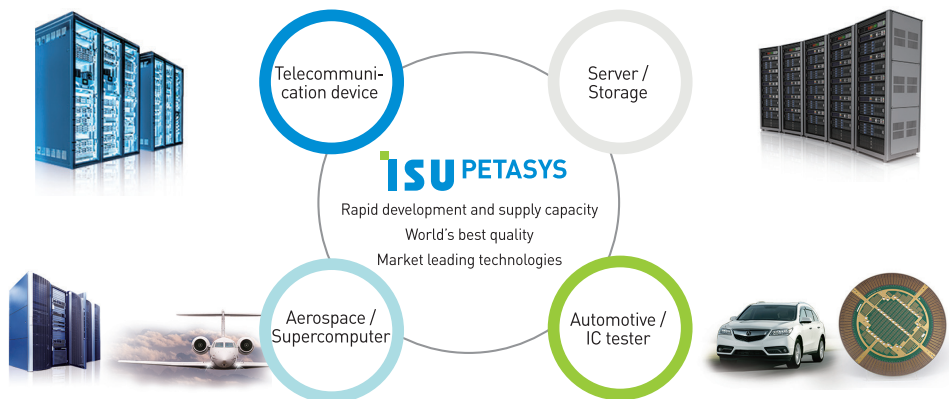
ISU PETASYS is actively responding to the changing market environment to take the lead in the global PCB market. In this regard, ISU PETASYS has established four business strategies: making continuous R&D efforts, developing new business, guaranteeing quality level, and enhancing customer satisfaction, through which the company acquires future core technologies and strengthens its cost competitiveness.



ISU PETASYS is promoting its business strategies based on the respect for human beings and environmentally-friendly corporate culture, and creating sustainable value together with its stakeholders including customers, shareholders, and employees.

Business Sector

With the widespread use of the Internet, wireless data system, and mobile telecommunications, the importance of multi-layered and highly integrated PCBs has been more emphasized for prompt data transfer and processing. ISU PETASYS is providing ultra-multilayer PCBs used in network (switch and router), server and storage, aerospace industry and supercomputer, and automotive components. Based on the world-class technology and quality, the company has maintained a partnership with global IT companies in various sectors, and will emerge as a leading PCB provider with unparalleled technology and unmatched products in the global market.



Creation and Distribution of Economic Value

ISU PETASYS shares economic value with various stakeholders including shareholders and investors, employees, local communities, partner companies, and the government. In 2016, the shared economic value amounts to USD 153 million in the forms of dividend, employee salary and benefits, investment in social contribution, purchasing and service costs, and corporate tax.

Stakeholder	Distribution of economic value	Unit	2016
Shareholders and investors	Dividend		3,428
Employees	Wage, severance pay, benefits		55,333
Local community	Social contribution investment	USD 1000	72
Suppliers	Purchase		89,178
Government	Corporate tax		5,229
Total		USD 1000	153,240

Ethical Management

ISU PETASYS pursues ethical management and promotes a fair corporate culture throughout the industry, considering its social responsibility and stakeholders which influence or are influenced by the company through business activities.

Ethical Management System

ISU PETASYS has enacted and complied with the code of ethics in an effort to create a fair and healthy corporate culture and also an ethical management environment. All employees are aware of and comply with the code of conduct based on the understanding that it is a prerequisite for a sustainable company, and third parties including partner companies are also recommended to do so. In 2016, the company established the Ethical Management Committee to enhance its corporate reliability and resolve ethical issues in a fair and objective manner.

Code of ethics

I. Attitude to shareholders and investors <ul style="list-style-type: none"> » Protection of the rights of shareholders » Equal treatment » Active provision of information 	II. Attitude to customers <ul style="list-style-type: none"> » Respect for customers » Protection of customers 	III. Attitude to competitors and partners <ul style="list-style-type: none"> » Fair competition » Fair transaction
IV. Responsibility for employees <ul style="list-style-type: none"> » Respect for and fair treatment of employees » Good working environment 	V. Responsibility for society <ul style="list-style-type: none"> » Compliance with laws and regulations at home and abroad » Contribution to the national economy and social development » Environmental protection » No political engagement 	VI. Employees' code of ethics <ul style="list-style-type: none"> » Healthy corporate culture » No conflict of interests » No use of internal information » Protection of corporation property and critical information » No sexual harassment at the workplace » Prohibition of accepting bribery and entertainment » Compliance with code of ethics

Promotion of Ethical Management Culture

ISU PETASYS strives to enhance the corporate integrity and internalize the value of human rights by promoting ethical behavior and respect for human rights among employees. In 2016, ISU PETASYS conducted two sessions of ethics training, and the total training hours reached 849. Thanks to these efforts, not a single case of corruption was recorded during the reporting period.

Whistleblowing System

ISU PETASYS operates the whistleblowing system for employees and external stakeholders to strengthen ethical management and promote a sustainable growth based on mutual trust. Stakeholders are allowed to freely report any action against the company's ethical management through the Online Hotline (whistleblowing) on the website, and the Ethical Management Committee promotes the fair operation of the system as a deliberative body.

Corporate Governance

ISU PETASYS has designed an advanced corporate governance with a focus on the Board of Directors to secure managerial transparency and establish reliable corporate governance, and operated the CSR Committee under the direct supervision of the CEO to practice socially responsible management.

The Board of Directors' Composition and Operation

The Board of Directors of ISU PETASYS is the top decision-making body, representing the benefits of shareholders and deciding on pending issues for the sustainable growth of the company. The Board of Directors consists of two standing directors including the CEO and two non-standing directors who serve a three-year term of office.

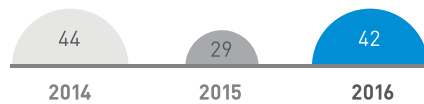
As of June 2017

Name <small>Gender</small>	Type	Position	Specialty	Notes
Sung-Min Kim <small>Male</small>	Standing director	CEO	Business administration	ISU Corporation CEO, Master of Business Administration in SNU
Young-Jun Seo <small>Male</small>		Plant manager	Electronic engineering	Director of ISU PETASYS R&D Center, Bachelor of Mechanical Engineering in Kumoh National Institute of Technology
Min-Ho Jhe <small>Male</small>	Non-standing director	Director	Economic	ISU Corporation CEO, ISU E&C CEO
Jae-Kyung Lee <small>Male</small>		External director	Business administration	Business administration professor at Kookmin University, Ph.D in the McCombs School of Business at the University of Texas

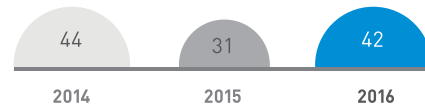
※ Director Yub Hwang and Managing Director Hee-Seob Lee who served as directors in 2016 completed their term in office, and Managing Director Young-Jun Seo and Director Min-Ho Jhe were newly elected as directors at the 45th general meeting of shareholders on March 24, 2017.

As of December 31, 2016

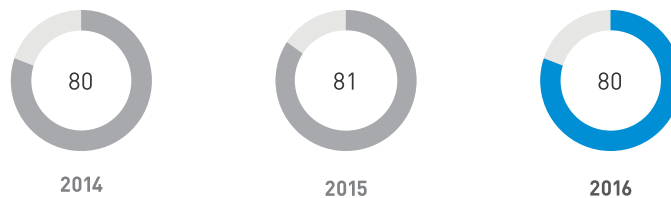
Number of the Board of Directors held Unit: Case



Number of decisions made Unit: Case



Average attendance rate Unit: %



Board of Directors' Transparency

Before holding a general meeting of shareholders for the election of directors, ISU PETASYS discloses all the information about nominators including their relationship with the largest shareholder and transactions with the company. Most candidates are approved in the way that shareholders support the recommendation of the Board of Directors, and the members of the Board of Directors are paid according to the pay-for-performance standards within the limit approved at the general meetings of shareholders. The details are available at the Data Analysis, Retrieval and Transfer (DART) System of the Financial Supervisory Service(FSS).

Ownership Structure and Communication

ISU PETASYS holds a general meeting of shareholders on a yearly basis and actively reflects the opinions of shareholders in the decision-making process and management. Furthermore, the company is proactively communicating with shareholders by officially announcing important management decisions on its website and the DART of the FSS.

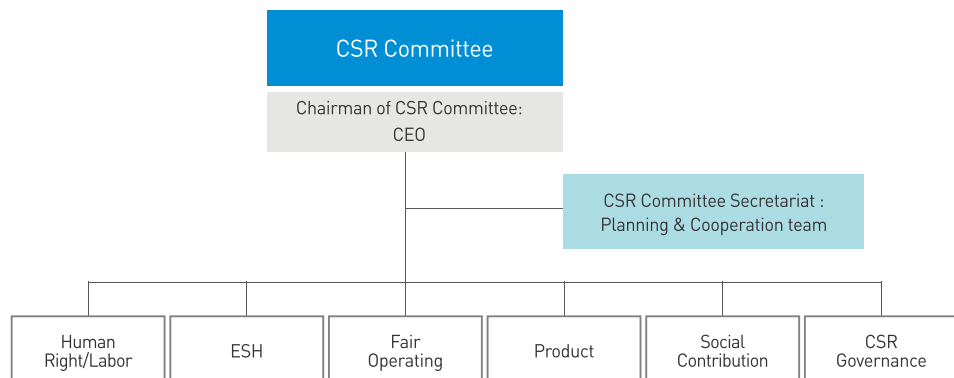
As of December 31, 2016

Ownership Structure Unit: %

ISU Corporation	22.54	Minority shareholders	65.54
Affiliated persons	8.28	Others	3.64

CSR Committee

ISU PETASYS has operated the CSR Committee that consists of the CEO and executives in charge of each sector as a subcommittee of the Board of Directors to incorporate the CSR activities into corporate strategy and management. The CSR Committee deliberates the CSR strategies and policies, reviews the accomplishments of CSR activities, and discusses risks and opportunities from the CSR perspective in the top decision-making process. Moreover, the CSR Committee Secretariat (Planning & Cooperation team) takes the lead in integrating and managing the activities in the fields of human rights and labor, environment · safety · health (ESH), fair operation, product, social contribution, and CSR governance.



CSR Strategy and Operating System

As a world's leading ultra-multilayer PCB provider, ISU PETASYS supports the Sustainable Development Goals (SDGs), and has established and implemented the CSR strategies to create economic, social, and environmental value.

CSR Strategy and Policy

ISU PETASYS has established a system to implement CSR strategies so that it can meet the demand for corporate social responsibility and strengthen its socially responsible management at the company level. The company reviews the annual performance based on the action plans and performance indicators for six strategic tasks, and constantly improves the plans for the strategic implementation of CSR activities by each department. The company reinforces the CSR management in the fields of environment, ethics, and human rights so that all employees can internalize the value and standard of behavior for the promotion of CSR activities.



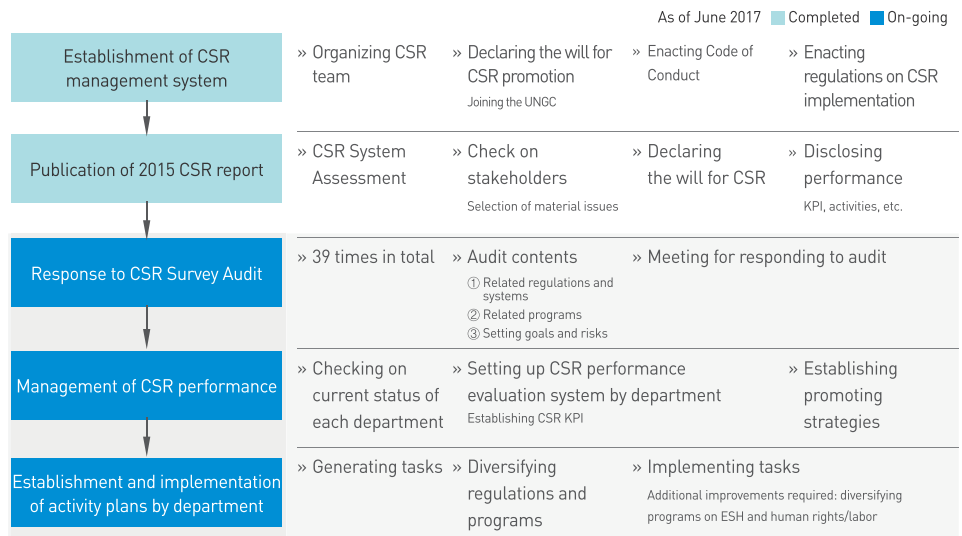
CSR Roadmap



CSR Management

As a part of the efforts to strengthen its CSR management, ISU PETASYS has formalized the establishment of CSR goals, operation of related programs, and management of data by designing a CSR road map and making CSR regulations. The CSR objectives, related departments and main contents are described in the CSR regulations, and also regular activities are planned to implement the strategic tasks for the effective management of CSR activities.

Inspection on Performance of Major CSR Activities After establishing the CSR governance structure, ISU PETASYS has managed the CSR performance and made improvements for each department based on inspection result.



The Chairman Award at 'The Most Loved Companies in Korea'

Receiving the Chairman of Korea Chamber of Commerce and Industry (KCCI) Award at the 4th 'The Most Loved Companies in Korea' On November 14th, 2016, ISU PETASYS received the Chairman of Korea Chamber of Commerce and Industry (KCCI) Award in the first-time reporter category at the 4th 'the Most Loved Companies in Korea'. Since publishing its first-ever CSR report in 2015, the company has established a CSR governance structure mainly led by the CEO, and disclosed CSR performance through CSR reports that contain main issues of each sector, setting a good example of socially responsible management to the public.

CSR Management for Continuous Improvement ISU PETASYS has examined the current status of its CSR activities and made continuous improvement by developing an ISO 26000-based CSR Assessment Tool. Through the process of planning, implementation, assessment, and improvement, the CSR activities of ISU PETASYS are managed in a systematic way.

CSR Key Performance Indicator

Human Rights & Labor

KPI	Unit	2014	2015	2016	2017 Target
Average training hour per employee	Hour	105.4	107.7	108.1	110
Average training cost per employee	USD	814	916	820	828
Total training cost	USD	704,474	773,121	701,575	732,759
Proportion of female recruits	%	13.6	7.3	14.5	15.0
Proportion of female employees	%	8.6	8.2	8.6	8.8
Rate of return after parenting and maternity leave	%	75.0	66.7	100.0	100.0
Rate of employees with disabilities	%	6.4	4.8	4.2	4.2
Resignation rate	%	0.5	1.8	1.7	1.2
Average length of service	Year	11.3	11.9	12.6	13.0
Average wage growth rate	%	6.5	4.5	4.8	4.5
Ratio of benefits to sales	%	1.7	2.1	2.0	2.0
Ratio of employees under collective agreement	%	86.9	95.6	94.1	96.0

ESH

KPI	Unit	2014	2015	2016	2017 Target	
GHG emission	Scope 1 (direct)	tCO ₂ e	13,535	18,490	21,317	21,870
	Scope 2 (indirect)	tCO ₂ e	26,185	27,682	30,083	28,580
Energy consumption	Direct consumption	TJ	96	109	118	112
	Indirect consumption	TJ	539	570	619	588
Waste disposal	General	Ton	6,323	5,285	4,461	4,600
	Designated	Ton	5,180	4,753	4,335	4,300
Waste recycling rate	%	91	88	88	88	
Air pollutant emission	Nox	Kg/year	361	544	571	514
	Ammonia	Kg/year	4,596	2,465	1,222	1,100
Wastewater discharge	Ton	949,641	1,016,689	1,107,274	1,100,000	
Water pollutant discharge	COD	Kg	64,811	79,779	85,268	82,709
	SS	Kg	14,231	10,098	8,136	7891
	T-N	Kg	49,722	46,857	42,554	41,277
	Cu	kg	425	209	335	324
Water consumption	Ton	1,107,253	1,150,428	1,254,301	1,210,000	
Hazardous chemicals leakage accidents	Case	-	-	-	-	
Number of safety accidents	Case	-	-	-	-	
Rate of industrial accidents	%	0%	0%	0%	0%	
Hazardous chemical consumption	Ton	8,792	7,984	8,282	7,454	

Fair Operating

KPI	Unit	2014	2015	2016	2017 Target
Education on anti-corruption and fair trade (Suppliers)	Person	14	16	19	24
Education on anti-corruption and fair trade (Employees)	Person	865	837	849	857
Rate of conducting CSR Audit in supply chain	%	74	59	73	80

Product & Customer

KPI	Unit	2014	2015	2016	2017 Target
Rate of resolving customer complaints within the fixed time	%	100	100	100	100
Number of findings at quality system audit	Case	-	-	-	-
Customer satisfaction	%	85	86	83	88

Community Involvement & Development

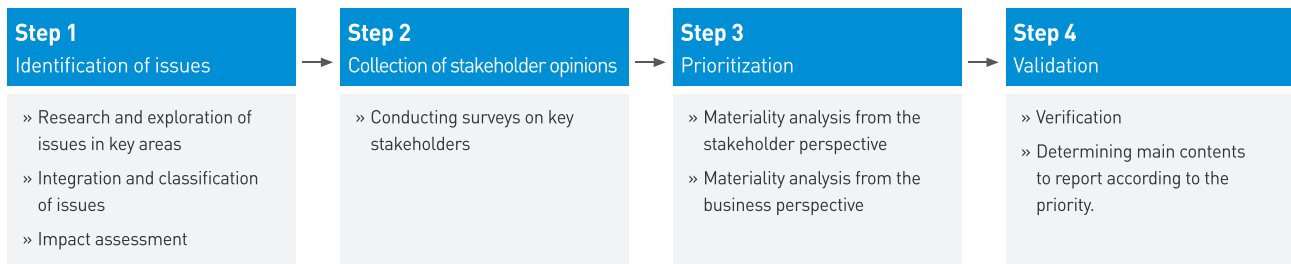
KPI	Unit	2014	2015	2016	2017 Target
Volunteering hours per employees	Hour	4	4	4	4
Rate of employee participation in social contribution	%	18	22	28	35

Stakeholder Engagement and Materiality Assessment

ISU PETASYS has conducted an assessment on stakeholder engagement and materiality by applying the global standards and assessments for sustainable management, such as GRI G4 and ISO 26000. Based on the results of the assessment, a number of issues were selected to be considered in the business activities and included in the CSR report. The results will be also reflected in the establishment of the annual CSR strategies for the continuous improvement of CSR activities.

Materiality Assessment Process

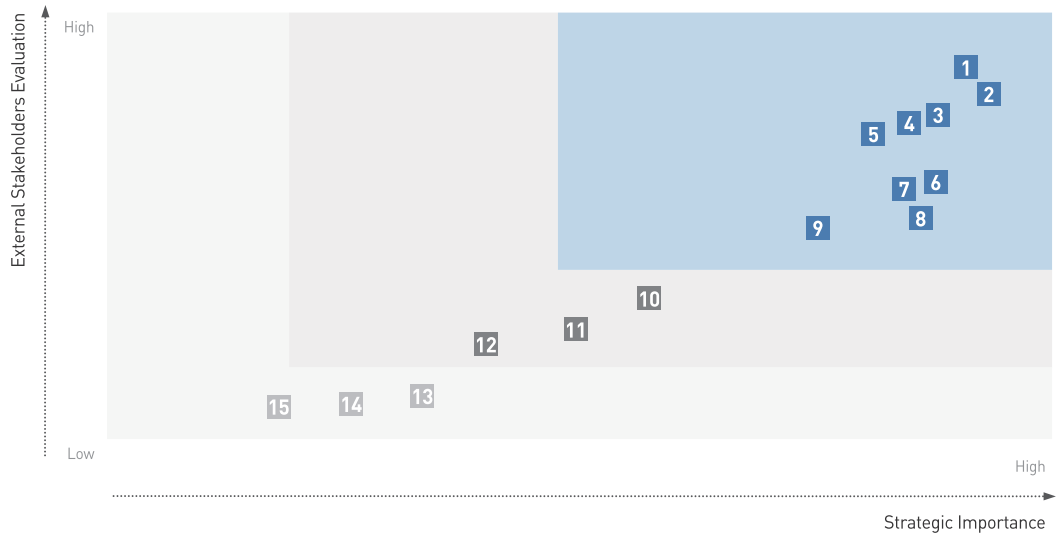
ISU PETASYS has selected material issues by exploring potential issues that have direct or indirect impact on its business activities in the sustainability context and considering the opinions of stakeholders and the strategic viewpoint of the company. The process of selecting material issues was verified by an independent third party for transparency.



<p>Identification of issues</p>	<p>ISU PETASYS explored the main issues in the PCB industry through industry reports and media research, and analyzed the sustainable management standards and assessments, government policies, and industrial cases and best practices to identify 321 CSR issues of high relevance. These issues were classified into 30 groups, and eventually 15 of them were selected after the assessment of impact by internal and external CSR expert groups.</p>
<p>Collection of stakeholder opinions</p>	<p>ISU PETASYS conducted a survey on key stakeholders who are affected by its business activities, including global customers from March 23 to April 6 in 2017 to reflect their opinions in selecting material issues. Total number of participants was 448 which consist of 374 internal stakeholders (employees) and 74 external stakeholders (shareholders, investors, employees from subsidiaries, business partners, customers, government and local community) participated in the survey.</p>
<p>Prioritization</p>	<p>ISU PETASYS prioritized the selected issues by analyzing their importance from the perspective of stakeholders and also from the business perspective of the company.</p>
<p>Validation</p>	<p>ISU PETASYS examined the validity of the issues selected by reporting to CSR managers of each department and management.</p>

Materiality Assessment Results

The material issues selected through the materiality assessment process were categorized into three dimensions : high, medium, and low, based on the priority considering stakeholder opinions and strategic importance. The issues on the products and business competitiveness of the company showed the highest importance, and action taken and performance for those material issues raised by stakeholder engagement are transparently reflected in this report.



Reporting material issues

	Rank	Material Aspect	Strategic Importance	External Stakeholders
High	1	Securing business competitiveness	93.0	82.7
	2	Quality management	95.0	80.4
	3	Developing new business	91.6	81.9
	4	Risk management	87.7	81.0
	5	Ethical management	86.4	80.7
	6	Safety and Health on the site	92.0	75.0
	7	Economic performance	89.2	77.7
	8	HR development and improvement	92.5	71.0
	9	Protection of customer information	84.1	78.9
Medium	10	Usage of raw materials	80.8	77.1
	11	Environmental impact of product and service	79.6	78.2
	12	Supply practices	78.8	77.5
Low	13	Emission of GHG	76.3	74.6
	14	Information of products and services	77.8	72.7
	15	Community involvement	71.5	74.2

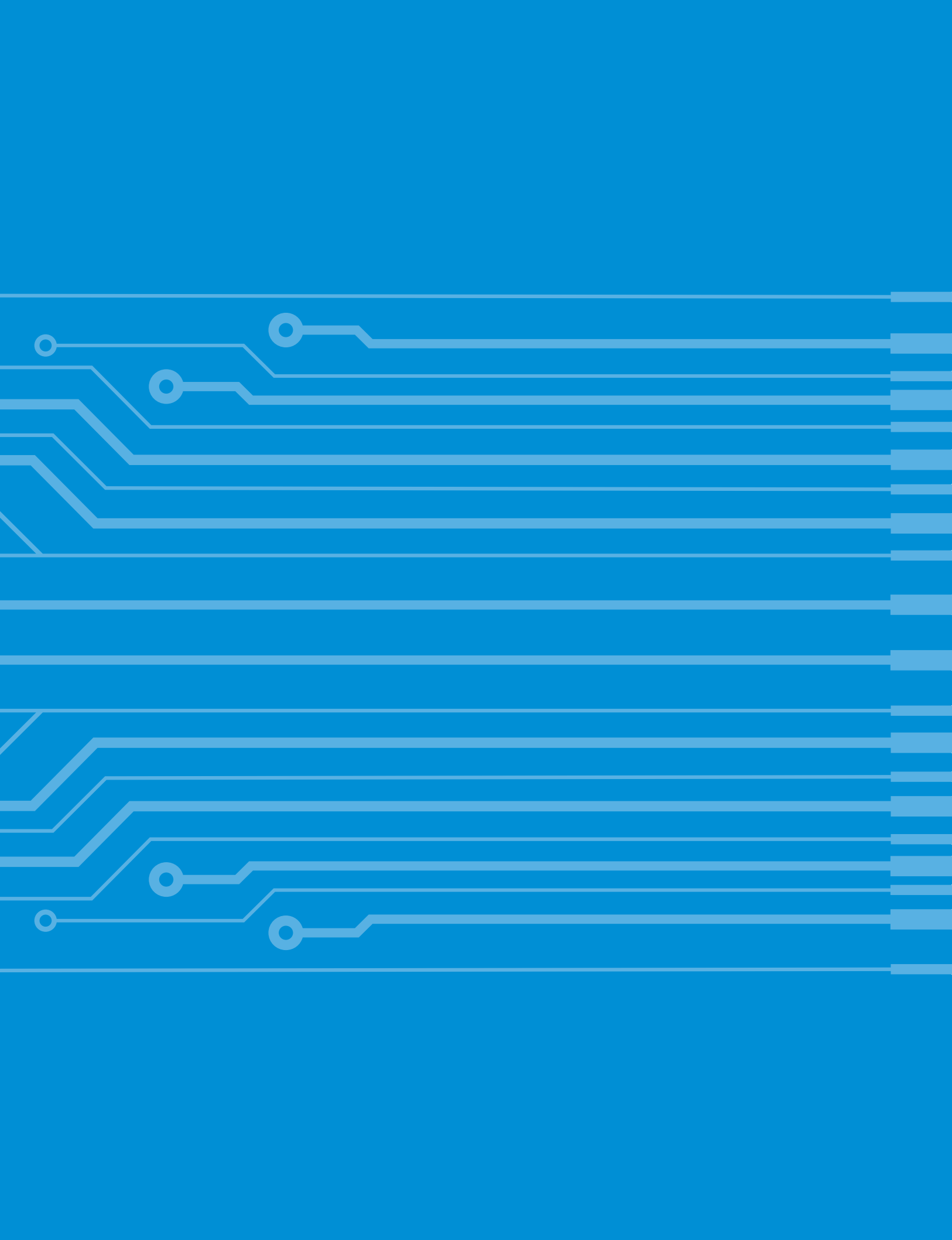
CSR Overview	Page
Economic Performance and Distribution	6
Ethical Management	7
Corporate Governance	8
CSR Strategy and Operating System	10
CSR Strategy & Performance	Page
Business Value	18
Human Rights & Labor	23
ESH Environment, Safety & Health	28
Fair Operating	34
Product & Customer	39
Community Involvement & Development	43

The background of the entire page is a solid blue color. Overlaid on this background are several white, stylized circuit board traces. These traces are composed of straight lines that turn at right angles, with small circles at various points representing solder pads or vias. The traces are scattered across the page, with a dense cluster in the top-left corner and another large, more complex cluster on the right side. The overall aesthetic is clean, modern, and tech-oriented.

2017 ISU PETASYS CSR Report

CSR Strategy & Performance

1. Business Value
2. Human Rights & Labor
3. ESH (Environment · Safety · Health)
4. Fair Operating
5. Product & Customer
6. Community Involvement & Development



1

CSR Strategy & Performance Business Value



Context

In the ever-changing society with the development of IT technology, technology-intensive businesses are faced with constant changes and challenges. The business environment has become more complex; the PCB industry has been separated into a low-growth market and a high-growth market according to items, and the standards of product evaluation, such as quality, price, and date of delivery, have been more strengthened.

Our Approach

ISU PETASYS is actively responding to market changes through constant R&D efforts and business innovation. The company is paving the way for sustainable growth and contributing to the industry development by enhancing its competitiveness in the main market and entering into new business areas with strong growth potential.

Our Performance

Business performance sales

USD **478** million

Market share
Global ultra-multilayer PCB (over 18L)

2nd

Securing Business Competitiveness

In an increasingly complicated business environment, ISU PETASYS has secured its business competitiveness by differentiating core technologies, improving product competitiveness, and strengthening customer relationships.

Differentiated core technologies

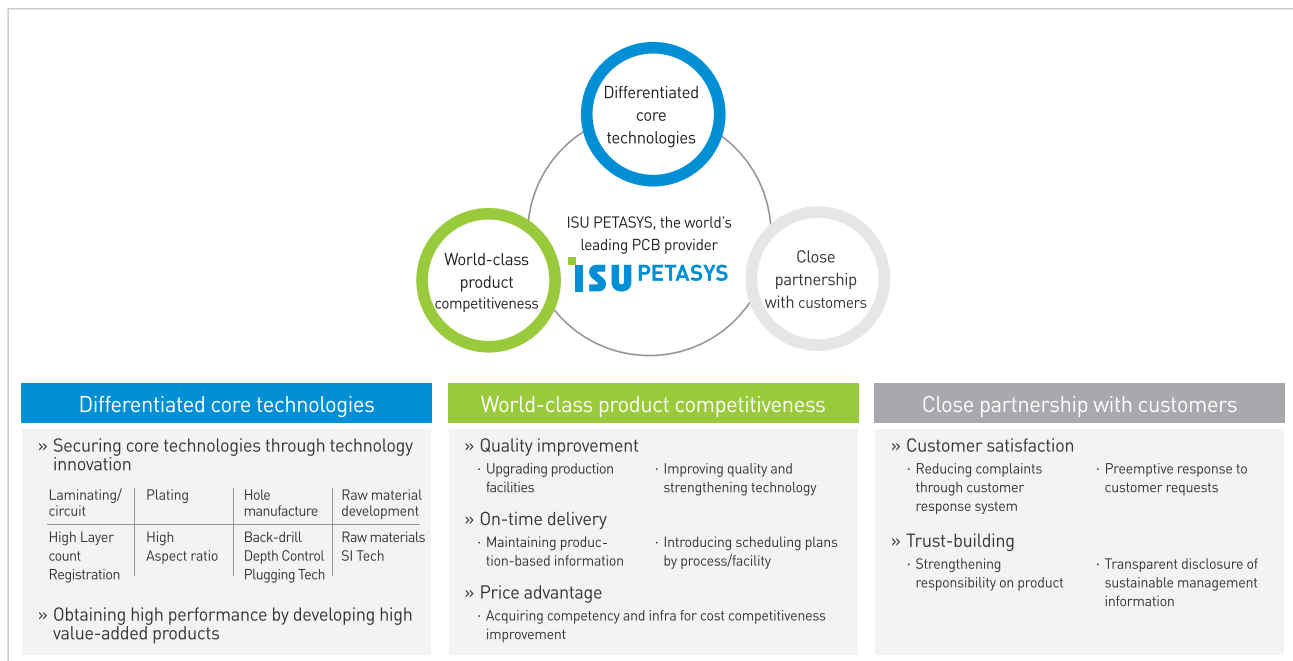
ISU PETASYS believes that there is nothing as honest as technology. The company is committed to conducting R&D and technology innovation to develop differentiated technologies, and to securing leading technologies to develop high value-added products in the PCB industry.

World-class product competitiveness

The quality, date of delivery, and price of products are the important factors to determine the competitiveness. With regard to this, therefore, ISU PETASYS has established business objectives and implemented strategic tasks, which include expanding investment to enhance product quality, establishing a system to shorten delivery time, and securing price competitiveness.

Close partnership with customers

In the PCB industry where every product is made to order, increasing customer satisfaction by strengthening the responsibility for products is the source of sustainable business. ISU PETASYS is promptly responding to customer needs and strengthening its business competitiveness through close customer relationships.



Quality Management

Q-communication, Pre-notification system

The Q-communication system identifies potential risks that might affect the quality of products and shares them with the production process in order to prevent the release of non-conforming products.

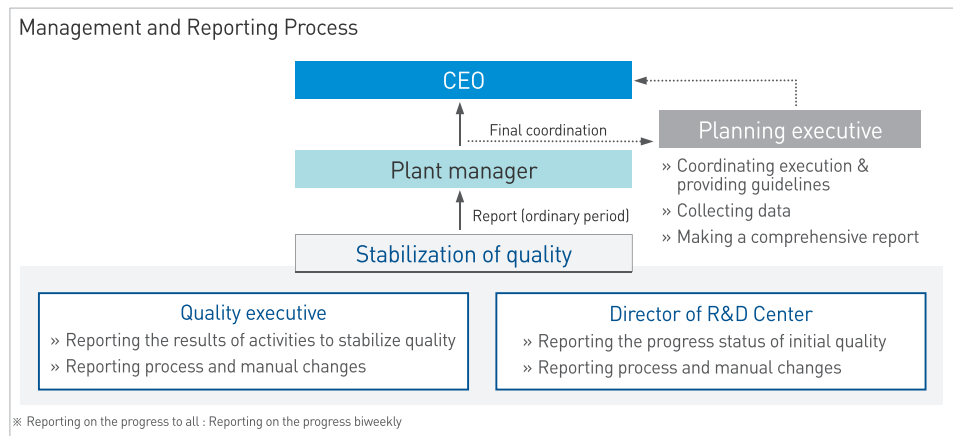
ISU PETASYS believes that products of the best quality sit at the core of competitiveness to create consistent business value. ISU PETASYS has strengthened quality management throughout the whole process to ensure the highest level of quality that exceeds customer expectations.

Quality management throughout the entire process

ISU PETASYS has applied quality management system to the entire process, ranging from materials to production to packaging, to secure a stable level of quality. As the importance of high value-added products has more than doubled over the past five years, the company has also doubled its efforts for quality management: establishing a pre-notification system for quality risk management and stabilizing the initial quality of the products targeting new customers.

Action plan for quality improvement

ISU PETASYS has established and implemented action plans to increase short-term effectiveness so that it can flexibly respond to changes in the business environment and secure cost competitiveness based on the stabilization of quality.



List of Major Certifications



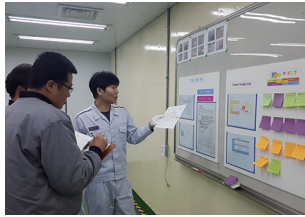
TL 9000 (2003)

Telecommunication Leadership 9000



AS 9100 (2007)

Aerospace Standard 9100



Brainstorming for quality improvement

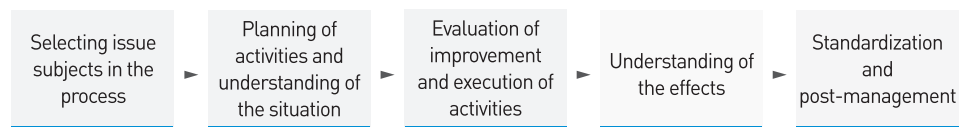


Quality circle activity

Quality circle activity

ISU PETASYS has promoted the activities of quality circles in a systematic way to identify and resolve the quality issues by process.

Procedure of activities of quality circles



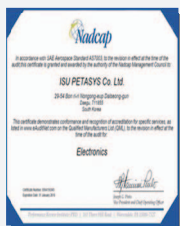
Employees are encouraged to develop ideas and make suggestions by using post-it throughout the entire process. Junior employees find the causes, and process managers, and part leaders consider plans for product quality improvement. In addition, the activities of quality circles by process are managed on a daily basis to enhance the execution of activities.

In 2016, a total of 16 quality circles set goals and improvement targets, and conducted themed activities by process. The company has provided training on problem solving methods for 56 process managers and circle leaders, and will continue to make enterprise-wide efforts for quality improvement.

The quality circle activities are not limited to problem solving but extended to the overall quality improvement based on issue analysis and goal setting by process, showing the authenticity in quality management of ISU PETASYS.

Quality and technology certification

ISU PETASYS has acquired a number of quality certifications from certificate authorities to be acknowledged for its excellence in quality and technology at home and abroad. In October 2016, The International Automotive Task Force (IATF) announced a new certification, IATF 16949 substituted TS 16949. The company is preparing a transfer evaluation for IAFT 16949 including core tools of production, assembly, product & service; customer requirements; restrictions.



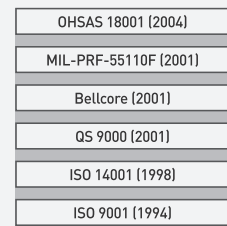
NADCAP (2010)
National Aerospace & Defense Contractors Accreditation Program



ITAR (2010)
International Traffic in Arms Regulations



TS 16949 (2015)
Technical Specification 16949



And others

Developing New Businesses

As the industrial environment changes, ISU PETASYS strives to seek business opportunities, challenge new business areas, and find new customers. The company has operated the New Business Council, mainly led by the R&D Center and Business Planning team, to examine new businesses and implement new projects.

New businesses in the PCB industry

ISU PETASYS has strengthened its business structure by developing new business opportunities. We have expanded the product portfolio and estimated the business potential in the automotive market, Radio Frequency (RF), IoT, and IC tester PCB that expect a rapid growth. Regarding automotive, RF, and IC tester PCBs, we fully utilize its technology and experience in developing new customers and products. With regard to IoT, we aim at entering the market by expanding the opportunity to participate in the development process. The technology and experience that we have accumulated while challenging new business areas are reflected on its existing business to create synergies.

Government-led/industry-university research collaborations

In 2016, ISU PETASYS participated in the government-led/industry-university research collaborations to develop 77-79GHz radar for vehicles and Korean supercomputer (H/W). This project will be implemented for up to 5 years from 2017.

Research task	Development of automotive radar	Developing Korean super computer
Duration	2 years (begin from April 2017)	3 years (begin from June 2017)
Research content	Selecting the optimal design and raw materials, setting qualifications for product commercialization, and establishing production process	Optimizing signal characteristics, managing long-term product reliability, and making prototypes
Current status	Conducting meetings with the automotive IT platform lab, implementing tasks	Conducting meetings related to tasks, attending the kick-off ceremony related to tasks

New Businesses outside of the PCB industry

ISU PETASYST has created social and economic value by producing ultra-multilayer PCBs, and now turns its eyes to future growth industries, which will make our life more abundant, considering their growth potential and business suitability. By exploiting new areas of growth such as electronic vehicle battery and smart factory solution, the company will actively respond to the ever-changing IT environment.

2

CSR Strategy & Performance Human Rights & Labor



Context

Technologies that make life more convenient and abundant come into existence thanks to people who dedicated themselves to the development and production of products. In the PCB industry where technology is equal to core competitiveness, human resources are the source of corporate value, implying that securing the talent and creating a good working environment are more important than anything else.

Our Approach

ISU PETASYS appreciates and promotes the value of respect for human rights throughout all of the activities in the company. The company strives to foster the talent and create a good working environment where all employees can display their capabilities to the utmost based on the respect for human rights and labor.

Our Performance

Average training hour per employee

108.1 hours

Average cost of training per employee

USD **820**

Employee benefits to sales

2.0 %

Human Rights Policy

ISU PETASYS has established human rights and labor policies by identifying a potential negative impact of its business activities on human rights and integrating the general principles of human resources and labor. The human rights and labor policies specify the regulations on forced labor and child labor, discrimination, working hours, wages, and benefits based on the respect for all employees as decent human beings. Moreover, the freedom of association, protection of maternity, settlement of grievances and development of the talent are also included in the policies. In this way, ISU PETASYS is creating a great workplace where all employees are respected and encouraged to display their capabilities. A total of 14 employees in the Human Resources Labor team and Planning & Cooperation team have received training on human rights policies and procedures, and the Human Resources Labor team takes charge of promoting human rights policies.

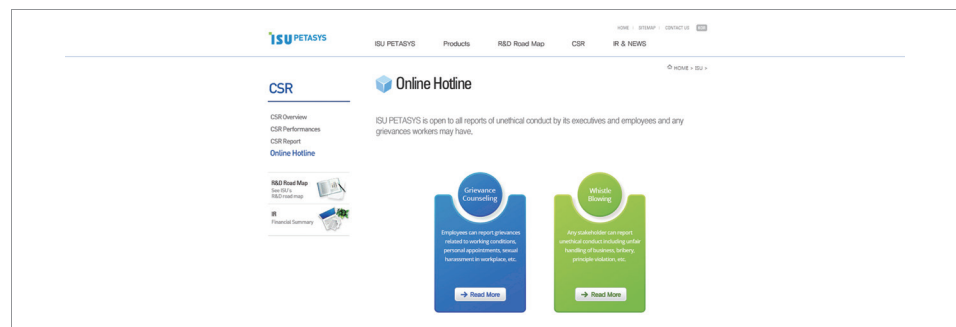
Respect for Human Rights of Employees

Culture of respecting human rights

In an effort to internalize the value of respect for human rights in the organizational activities and business operations, ISU PETASYS has provided a number of training programs on human rights. Since establishing the code of ethics and principles of respect for human rights in 2015, the company has held a ceremony where all employees pledge to respect human rights on a regular basis, and also provided training programs for all employees to create a corporate culture of respecting human rights.

Employee grievances

ISU PETASYS has established and operated the employee grievance system. All grievances are addressed by the Employee Grievance Committee and ombudspersons appointed according to the grievance regulations in a fair and objective manner. The cyber channel that titled "Online Hotline (grievance counseling)" on the company's website enhanced the accessibility for employees: grievances can be submitted with unique numbers (no employee name required) and reviewed only by the writers. Not only employees but also customers, partners, and others are encouraged to file their grievances. In 2016, there were 3 grievances and all of them were resolved. The details and results of grievance settlement are saved as database to strengthen the management of improvements.





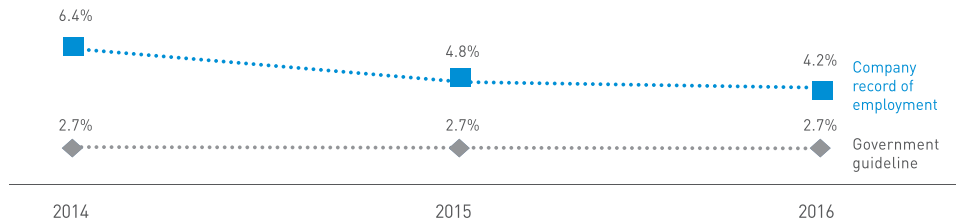
Training program on the respect for human rights

Promotion of diversity and prohibition of discrimination

ISU PETASYS strives to create a healthy workplace where diversity is respected and discriminations against race, age, gender, and disability are all prohibited. The company has included the prohibition of discrimination in the human rights and labor polices and also clarified that in the pledge to respect human rights so that employees are not illegally discriminated against. In addition, the company guarantees equal opportunities by giving preferential treatment to the underprivileged during the recruitment process. As a result of these efforts, ISU PETASYS has been selected as 'Best Company in Equal Employment Opportunity (2003)' and 'Best Company in Employment of the Disabled (2006, 2011)' by the Ministry of Employment and Labor.

Employment of the disabled

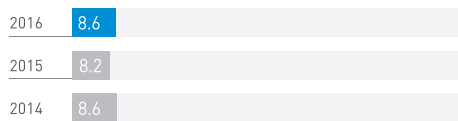
To fulfill its responsibility for the underprivileged, ISU PETASYS has developed a number of jobs for the disabled and created a comfortable working environment for them by providing assistive technology devices. Recently, the number of total employees has increased and some of the disabled employees have retired, making the employment of the disabled decrease to a certain point. However, the company maintains the employment rate above the legal standards by giving preferential treatment to the underprivileged in the recruitment process and hiring the disabled based on the recommendation of the related agencies.



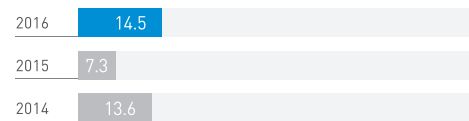
Employment of woman

ISU PETASYS prohibits discrimination based on gender in the recruiting, training, compensation, promotion, and evaluation process. In 2016, females account for 14.5% of the new recruits, and the company strives to foster female engineers and managers through various programs.

Female employees ratio Unit: %



Female recruits ratio Unit: %



Fair Employment and Employee Relationships

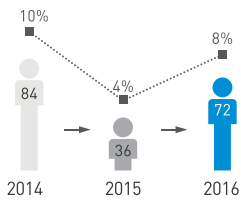
ISU PETASYS has adopted transparent and fair employment policies and guaranteed fair treatment for all employees to create decent and quality jobs.

Recruitment process

ISU PETASYS has a fair and open recruitment process to secure the talent for the improvement of corporate competitiveness. According to recruiting plans, ISU Group posts a job opening including internship in mass media and conducts the recruitment process. Every year, the company hires more than a certain number of employees through internship, open recruitment, special recruitment, and school-work links, with a focus on the employment of R&D and engineering workforce.

Job creation

Number of new recruit & Job creation rate



Employees by contract type and gender Unit: People

Category	2014	2015	2016
Permanent	784	816	816
Temporary	81	21	33
Male	796	768	778
Female	69	69	71
Total number of employees	865	837	849

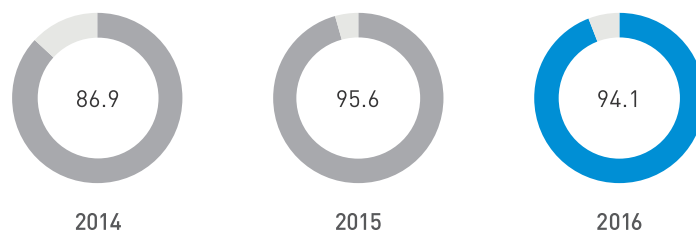
Social dialogue

ISU PETASYS ensures freedom of association and promotes social dialogue among employees to create a culture of mutual cooperation between labor and management. Based on this mutual cooperation, labor and management frequently exchange their opinions through 'Collective Bargaining', 'Labor and Management Council', 'Labor and Management Safety and Health Committee', and 'Labor and Management Personnel Subcommittee', and the results are reflected on the improvement of working environments and conditions. Furthermore, labor and management jointly adopted a declaration of socially responsible management, spreading the culture of mutual cooperation across society in the forms of human-oriented management, local economic revitalization, and local job creation.



Labor negotiations agreement

Union membership Unit: %



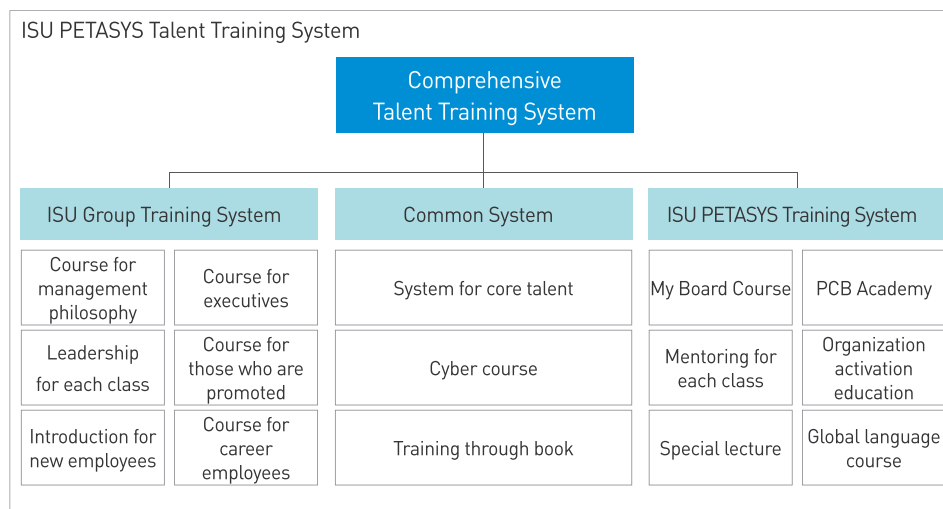
Talent Training and Employee Welfare

ISU PETASYS recognizes that nurturing and securing the talent is the driving force of sustainable growth. In this regard, the company has made investments in talent training and provided a wide range of support for employees to enhance the quality of their life.

Talent training

To secure business competitiveness and promote sustainable growth, ISU PETASYS focuses on strengthening employee competency by conducting specialized training on leadership, jobs, and global business practices.

Employees of each job group and position are provided with customized training on their jobs: each class is given a sense of duty for their roles; training on leadership is offered as part of the curriculum that helps employees prepare for their future roles; and self-learning culture is created to improve expertise. In addition, various training programs, including global language course, business trends, and organizational cultures, are intended to encourage mutual communication and upward leveling at home and abroad.



Employee welfare

ISU PETASYS operates a variety of welfare programs to promote the work-life balance of its employees, ranging from housing loan, regular medical check-up, to safe and convenient working environment, such as cafeteria and infirmary. The examples also include flexible time to improve the working environment and refreshment leaves to support the leisure life of employees and their families. In particular, a workplace nursery was established to lessen the childcare burden of employees, and educational expenses for children are supported to lighten the financial burden of employees.

Employee welfare Unit: %

	2014	2015	2016
Employee benefits to sales	1.7	2.1	2.0
Average wage growth rate	6.5	4.5	4.8
Rate of return after parenting leave	75	67	100

3

CSR Strategy & Performance

ESH (Environment · Safety · Health)



Context

The interest in and regulations on the environment, safety and health have been constantly increasing at home and abroad. Against this backdrop, companies are required to disclose information on the environmental impact of their business activities and to make efforts for improvement. Also, they need to do their business in a sustainable way by creating a safe and healthy working environment.

Our Approach

ISU PETASYS has established the ESH policies to minimize the environmental impact during the production and distribution process and to establish a safe and healthy working environment, and implemented the policies by operating the environment, safety, and health management system (ISO 14001 : 2015, OHSAS 18001).

Our Performance

Number of accidents

0 case

Rate of accidents

0 %

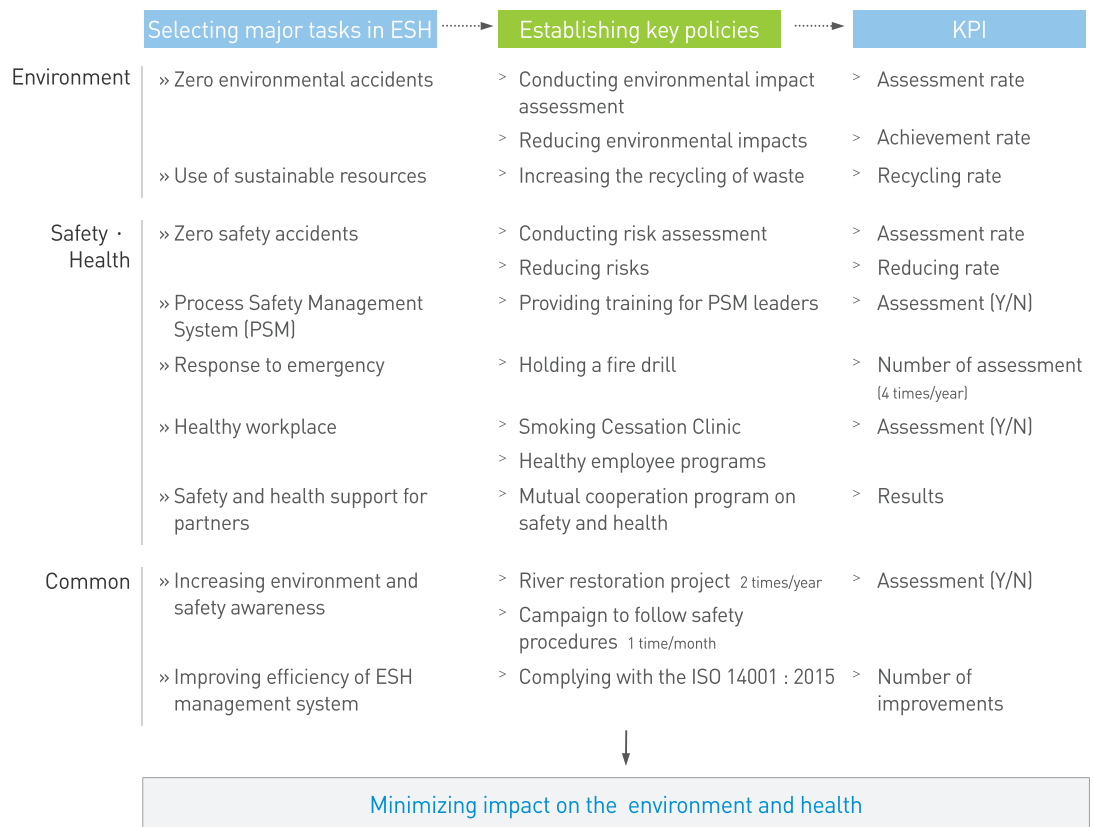
Rate of recycling

88 %

Management System

Based on the Environment · Safety · Health Integrated Management System, ISU PETASYS has systematically managed the environmental impact of its business activities and established a safe working environment. Complying with the ESH regulations, the company has selected major tasks in the environment · safety · health areas, and implemented key policies with the Environment & Safety & Health team serving as a control tower.

Environment · Safety · Health Management System



Environmental Management System

Strengthening Environmental Impact Assessment

In order to strengthen the management of chemicals and waste that might negatively affect the health and safety of employees and the environment, ISU PETASYS has extended the scope of environmental assessment to the entire process, ranging from materials to product disposal, and reflected the results of assessment on improvement activities.



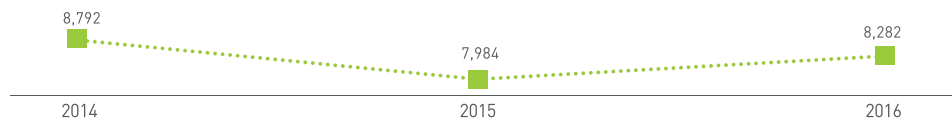
ISO 14001 : 2015 Certification in Environmental Management

Reduction of Environmental Impact

Management of toxic chemicals

ISU PETASYS has strictly managed all chemical substances including toxic chemicals from storage to disposal. Every month, the company carries out a regular inspection on chemicals according to relevant regulations and internal standards, and provides the Material Safety Data Sheet (MSDS) to the sites along with personal protective equipment and emergency equipment. Also, safety education for toxic chemical handlers is regularly provided to prevent environmental or safety accident.

Toxic chemical emissions Unit: Ton

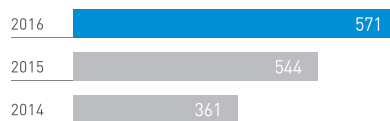


Management of air pollutants

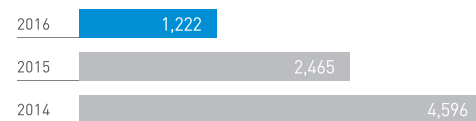
We have made all-out efforts to reduce air pollutants from the production process. In 2015, the generation of air pollutants increased along with the establishment of the 3rd plant. Yet, the air pollutants have been legally managed by prevention facilities and monitored regularly. In particular, the company conducts a regular inspection on prevention facilities to maximize their efficiency and also a planned maintenance of decrepit facilities to reduce air pollutants.

Air pollutant emissions Unit: Kg

Nitrogen oxide (Nox)



Ammonia



Management of water pollutants

ISU PETASYS has systematically managed inevitable wastewater and water pollutants from the production process. The wastewater from production is sorted according to the characteristics of each process and treated by its own facilities, and the treated wastewaters are carried to the sewage treatment plant of Dalseong Industrial Complex and discharged after the second treatment. The highly concentrated wastewaters, which cannot be treated by the internal facilities, are separately collected for outsourced treatment, and subject to the permissible discharge standards that are stricter than legal standards. Since the unit of water usage rised due to the increased production of ultra multilayer PCBs, we make efforts to improve the management of water by a strict control.

Water pollutant discharge Unit: Kg

	2014	2015	2016
COD	64,811	79,779	85,268
SS	14,231	10,098	8,136
T-N	49,722	46,857	42,554
Cu	425	209	335

Water use and wastewater discharge Unit: Ton

Water use



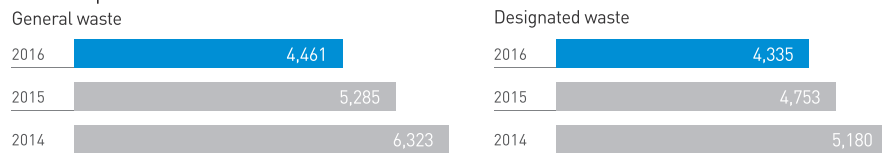
Wastewater discharge



Management of waste

We strive to reduce waste generation from production activities by setting goals and managing the entire process from generation to storage to disposal. When it comes to the waste outsourced for treatment, the process of treatment is specified in a tripartite agreement with the service provider; an annual inspection is conducted to check the compliance with given requirements; and the pollution in the surrounding areas and civil complaints are managed. Therefore the amount of general and designated waste has decreased by 16% and 9%, respectively, compared to 2015.

Waste disposal Unit: Ton



Recycling and Reuse of Resources

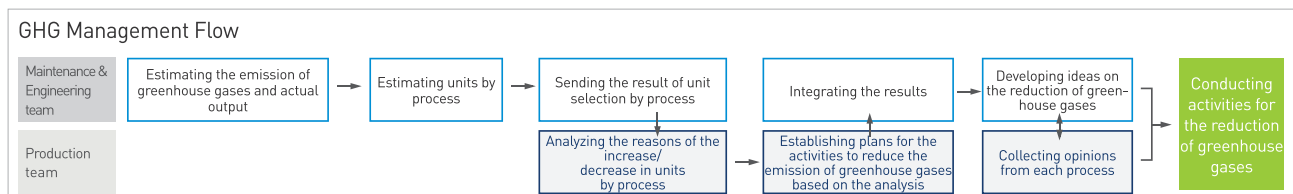
We have made company-wide efforts for the sustainable use of resources by recycling waste from production activities and reusing raw and subsidiary materials. For the recycling of waste, we sort the waste coming from the facilities including discarded products into 47 types, and reuses 45 of them. In 2016, 88% (7,740 tons) of the waste was recycled. Moreover, the company has developed the ideas on the reduction and reuse of raw/subsidiary materials. We are operating a facility to recover valuable metals such as gold (Au), silver (Ag), and copper (Cu) included in raw and subsidiary materials; establishing a facility to recover copper from wastewater in 2016; and increasing the recycling of catalyst wastewater.

Climate Change Mitigation

ISU PETASYS has created a greenhouse gas inventory according to the National GHGs Management System (NGMS) to estimate and manage the emission of greenhouse gases, and also conducted various activities to reduce the amount of direct and indirect emissions.

Regulations on the reduction of greenhouse gas emissions and energy consumption

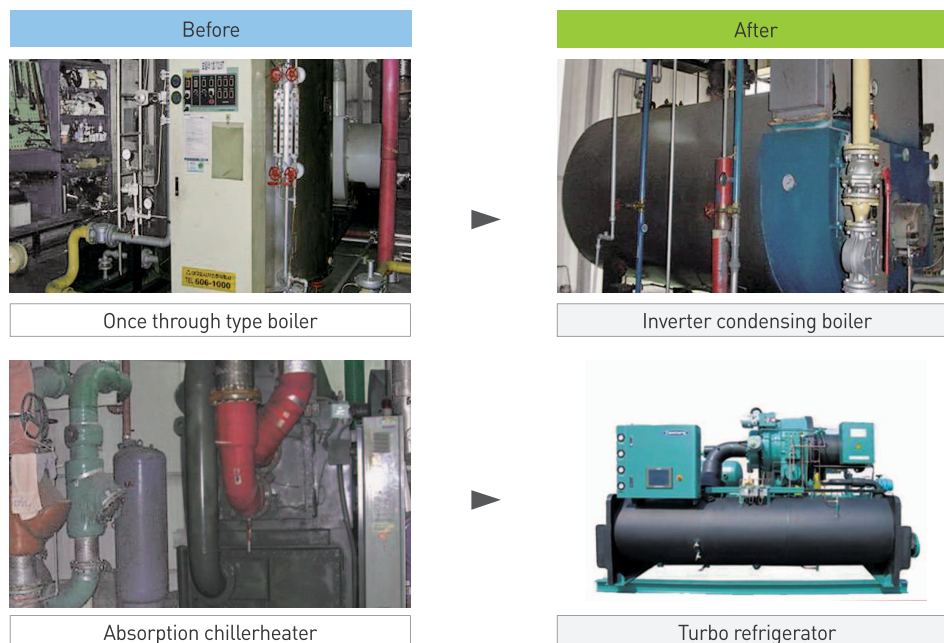
ISU PETASYS has established and operated the regulations on the reduction of greenhouse gas emissions and energy consumption to protect the environment and prevent the environmental pollution. In particular, the discharge facilities were categorized by process, and the greenhouse gas management flow was established to clarify the responsibilities for and procedures of discharge.



Reduction of energy consumption by process

ISU PETASYS strives to increase the efficiency of energy consumption by having the Maintenance & Engineering team supervise the consumption of energy by process, and related departments make improvements based on the results of inspection.

Introducing high efficiency equipments



Management of greenhouse gas emissions and energy consumption

ISU PETASYS has managed the emissions of greenhouse gases and amount of energy consumption by process. However, the establishment of new plants and facilities along with the growing production has contributed to increasing the annual emissions of greenhouse gases. Regarding this matter, the company is making all-out effort to find the causes and come up with the measures to reduce the emissions.

Greenhouse gas emissions and energy consumption

Category		Unit	2014	2015	2016
GHG emission	Direct emission Scope1	tCO ₂ e _q	13,535	18,490	21,317
	Indirect emission Scope2		26,185	27,682	30,083
	Total		39,720	46,172	51,400
Energy consumption	Direct consumption	TJ	96	109	118
	Indirect consumption		539	570	619
	Total		635	679	737

Safety and Health Management System

ISU PETASYS has adopted the Occupational Health and Safety Management System (KOSHA 18001, OHSAS 18001) and complied with the internal safety and health regulations to create a safe and healthy workplace. The company has strived for health and safety management ranging from risk prevention to program operation to monitoring, and designated plant managers as the person in charge to actively promote safety and health management throughout the workplace. In addition, the company has operated the working-level committee for safety and health management that consists of supervisors and representatives of partner companies to create a safe and healthy workplace.

Safety and Health Programs



Safety & Health Inspection



Safety & Health Education



Anti-drinking Campaign for Employee Health

Zero safety accidents

To prevent the occurrence of safety accidents at the workplace, ISU PETASYS assesses the related risks and conducts activities to reduce them: examining the working environment where accidents such as fire, fall, and injury can occur and carrying out activities for improvement, and also conducting training on safety and health, and inspections. As a result of these efforts, not a single case of safety accidents was reported from 2014 to 2016 and the accident rate achieved a zero percent.

Process safety culture

ISU PETASYS has sincerely implemented the tasks and evaluation of Process Safety Management (PSM). In particular, the company strives to promote process safety culture throughout the company by securing the safety of chemical management process and conducting training on PSM and internal inspections.

Response to emergency

ISU PETASYS has established a series of emergency scenarios of toxic chemical leakage, fire explosion, and natural disasters to minimize potential damage. The company has verified the effectiveness of the response system by conducting regular emergency drills (fire, chemical leakage, confined spaces, etc.) four times a year and checking emergency supplies once a month.

Healthy workplace

ISU PETASYS has examined and managed the risk factors of diseases that might occur or frequently occur during the production process. The company's efforts to create a healthy workplace include noise reduction program and support for employee health management. The company arranges a health education class by medical specialists once a year, and provides a special program to measure the overall health of employees and prescribe exercise to each employee. In addition, the company promotes health management among employees by encouraging them to set fitness goals by individual and by team.

4

CSR Strategy & Performance Fair Operating



Context

Along with the rapidly changing technology and intensifying competition in the market, fair business with stakeholders such as suppliers, and competitors has become more important. Fair business is not a simple ethical issue but a sustainability issue of growing importance.

Our Approach

ISU PETASYS has established the Code of Conduct as a standard for fair business operations and also various systems to comply with the standard. Moreover, the company has strengthened the management of CSR in the supply chain to minimize the risk of fair business operations and build a virtuous circle of social responsibility.

Our Performance

Education on anti-corruption and fair transaction

849 employees

Supplier CSR Audit Ratio

73 %

No. of corruption cases

0 case

Management System

ISU PETASYS has established a fair and transparent business operating system in an effort to fulfill its social responsibility. The company complies with laws and regulations on business operations as well as international ethical standards by establishing a code of ethics, CSR regulations, and whistleblowing system. In addition, the company has enacted the Code of Conduct to promote the fair corporate culture among employees. The Planning & Cooperation team, which takes charge of CSR under the direct supervision of the CEO, cooperates with the Purchasing team, Production Control team, and Sales team to conduct audit activities, regular monitoring, inspection, and training to promote fair business operations.

Compliance

ISU PETASYS complies with the laws and regulations of the countries of its business operations, and reduces risk factors in business operations through the internal audit system. Furthermore, the company has operated the internal control system to follow the international ethical practices and standards.

Internal control system

ISU PETASYS has regularly checked the key control items of each task related to fair business operations and separately operated the internal control system for a smooth control process. Moreover, the company has maintained the reliability and transparency of accounting information through the internal accounting management system.

Anti-corruption

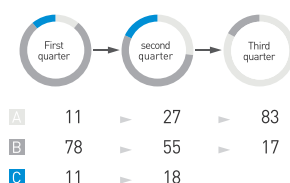
ISU PETASYS prohibits employees from engaging in bribe, corruption, coercion and embezzlement, and from providing or receiving bribes or other advantages to enjoy improper and illegal benefits. As a result of these efforts, not a single case of corruption occurred during the report period.

Fair Business Operations

ISU PETASYS has strived to create a Win-win corporate culture based on fair competition, and strengthened the institutional support for fair business operations to prevent stakeholders from suffering damage caused by unfair competition.

Suppliers Evaluation in 2016

Proportion of ratings in the first, second, and third quarter



Supplier evaluation system for fair competition

ISU PETASYS has operated the supplier evaluation system to ensure equal opportunities for participation and enhance product competitiveness. The system evaluates a number of items including delivery, quality, financial stability, and cooperation according to four levels (A,B,C,D). The suppliers with outstanding performance are offered incentives, and the rest of them are managed for the improvement of each item. Since the number of suppliers which showed improvements after evaluation has increased, the average performance of all suppliers was enhanced in 2016.

Training on Fair Business Operations

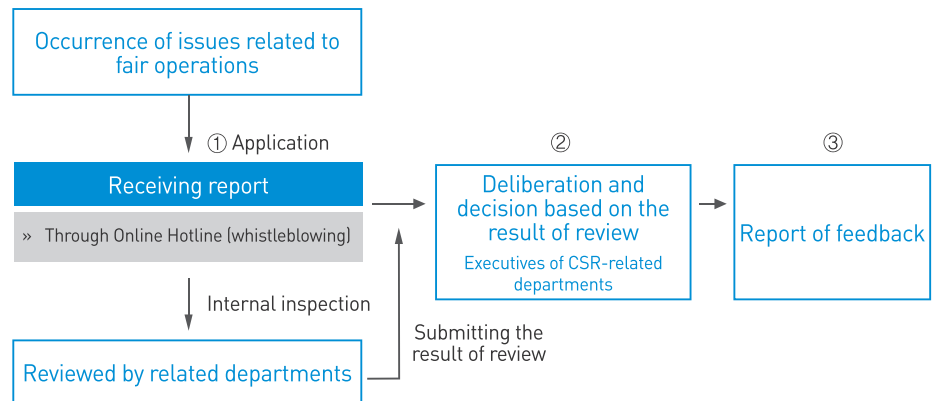
ISU PETASYS has offered training programs on fair transaction and anti-corruption to promote fair competition and prevent corruption at the workplace. The training programs on fair business operations are provided for suppliers as well as employees, and one training session was held for all suppliers in 2015.

Category	Unit	2014	2015	2016
Training on fair transaction and anti-corruption	Number	3	3	2
Employee Participant	People	865	837	849

Whistleblowing System

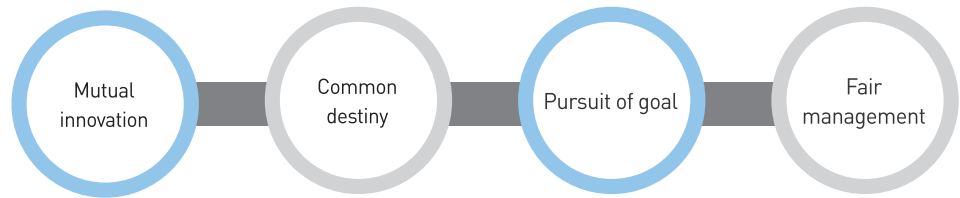
ISU PETASYS has introduced a whistleblowing system to ensure that internal and external stakeholders can freely report any kind of unfair business activities including corruption. Stakeholders of ISU PETASYS including employees, customers, and suppliers can submit an anonymous report which will be given a unique number upon submission to protect whistleblowers according to the internal CSR regulations. In 2016, one case was submitted and handled according to the process.

Whistleblowing Process



Mutual Growth

ISU PETASYS promotes mutual growth with its suppliers considering them as a group bound by a common destiny. The company operates training programs and communication channels for its suppliers based on the values of common destiny, fair management, pursuit of goal, and mutual innovation.



2017 Meeting for mutual growth

Meeting for Mutual Growth

ISU PETASYS has held regular meetings for mutual growth every year to share the current status of the company and pending issues and establish a healthy relationship with its suppliers. In 2016, representatives of 20 suppliers participated in the meeting to share the PCB market trends and business strategies and also discuss their performance and key issues. These meetings allow the company and its suppliers to come up with practical measures and strengthen cooperation to jointly respond to changes and opportunities in the business environment. Moreover, ISU PETASYS actively listens to the complaints and requests of its suppliers while making reasonable requests to them to create a suppliership for mutual growth.

Improvement performance for mutual growth

As of 2016

Delivery	Quality	Others
<ul style="list-style-type: none"> · Stabilizing the EDI System to send the date of delivery of raw materials in real-time · Promoting emergency supply plans with major raw material suppliers to deal with changes in the raw material market and delay in deliveries 	<ul style="list-style-type: none"> · Reducing the defects of imported raw materials by 5% from 2015 to 2016 through the joint quality improvement activities · Implementing a project to remove foreign substances on the surface of raw material 	<ul style="list-style-type: none"> · Requesting cooperation to stabilize the supply of raw materials to the plant in Hunan, China

Training and Consulting for Start-up Suppliers

As part of the efforts to expand its social responsibility and enhance the managerial capability of its suppliers, ISU PETASYS has provided training on personnel and labor management and also financial consulting services for new enterprises in the supply chain. A number of training sessions on personnel and labor policies, including employment contract and rules of employment, are provided to prevent the violation of human rights and labor rights at the workplace. Moreover, financial consulting services on how to report taxes and how to use financial information are offered to support the business operation of its suppliers.

CSR Management in the Supply Chain

CSR Management Standards in the Supply Chain

ISU PETASYS has established the CSR management standards and applied them to the supplier management procedures. The company will strengthen its CSR management from a mutual growth perspective so that its suppliers can build a safe working environment and pursue environmentally-friendly and ethical business operations.

CSR Audit for Suppliers

ISU PETASYS conducts CSR audits to fulfill its social responsibility throughout the supply chain. By carrying out audits in four areas of human rights and labor, environment · safety · health, fair business operations, and product responsibility, the company strives to reduce risks that might occur in the supply chain and consolidate the foundation for sustainable management.

Customer Information and Technology Protection

ISU PETASYS has actively engaged in the protection of information assets by incorporating information security into its corporate management. By tightening the control of administrative security, physical security, and technical security, the company is committed to protecting customer information and technology from various threats, such as information leakage, exposure, modulation, delay, and disaster.



Implementing security training

Administrative Security According to its information protection policies, ISU PETASYS has held training on security for all employees and suppliers and renewed the pledge to protect information security once a year.

Physical Security We have installed CCTV and fingerprint access control system at every place where information processing facilities are located including building entrances, and performed real-time security control activities to protect facilities and information 24/7/365. Furthermore, the company has established emergency plans for blackout and natural disasters, such as fire and flood, and held simulation training to deal with risks of physical security.

Technical Security ISU PETASYS has applied various systems for the security of network, server, APP, DB, and End PC to maximize availability while ensuring and maintaining confidentiality and integrity. Moreover, the document security DRM has been extended and applied to its subsidiary ISU EXABOARD to minimize information leakage, and will be applied to all companies under ISU Group by the second half of the year. In this way, ISU PETASYS strives for the protection of customer information and technology information by expanding the coverage to the Group level.

Administrative Security	Physical Security	Technical Security
<ul style="list-style-type: none"> · Establishment of Information protection policy · Improvement of security awareness 	<ul style="list-style-type: none"> · Access control and CCTV · Intrusion Prevention System, SSL-VPN network partitioning, etc. 	<ul style="list-style-type: none"> · Network and web security · PC and document security (DRM) Control of storage device, document encryption

5

CSR Strategy & Performance Product & Customer



Context

The PCB industry witnesses stricter standards for quality evaluation from the perspective of product responsibility as key components of all electrical equipments and electronic appliances, and also fiercer competition to secure share of customer. The audits on the production process have been conducted with the consideration of social and environmental impact from the purchase of raw materials, and prompt response to customer requests has become more important for business.

Our Approach

ISU PETASYS has strengthened quality management throughout the production process, and promptly responded to customer requests according to the internal policies and systems for product responsibility. Moreover, the company objectively evaluates and manages the factors that can affect customer satisfaction and strives to maintain and reinforce the cooperation with customers.

Our Performance

Settlement of customer complaints on time

100 %

Audit findings on quality system

0 case

Customer satisfaction

83 Points

Management System

Throughout the production process, ISU PETASYS has operated the quality management system to enhance the quality and safety of products and to preemptively respond to customer requests. The company complies with the product environmental regulations at home and abroad; manages the entire process from raw materials to product according to the internal quality management policies. The company encourages the R&D Center, Quality Assurance team, Quality Control team, and Sales team to provide the best quality and services.

Internal Quality Management Policy

	Major activities
Enhancement of internal quality system	<ul style="list-style-type: none"> » Upgrading the quality system by acquiring TL 9000, AS 9100, NADCAP, TS 16949 » Maintaining the quality system through bi-annual internal inspections
Reduction of defect rate	<ul style="list-style-type: none"> » Reducing the defect rate through regular quality inspections by TFT
Prevention of defective products	<ul style="list-style-type: none"> » Final product inspection by using Q-Communication » Zero errors by improving the performance of inspection equipment and conducting a study of methods

Responsible Production and Supply

ISU PETASYS is making all-out efforts to produce and supply responsible products that meet the high standards of quality evaluation and requirements presented by global customers. In particular, the company manages the entire process from raw materials to production to supply according to the internal policies, and fulfills its product responsibility by complying with internal and external regulations.

Responsible Sourcing of Minerals

ISU PETASYS has implemented the management policies for conflict minerals to prevent the use of conflict minerals in the areas of influence of the company and actively participated in the industrial activities for the sustainable use of resources.

With the growing importance of the management of conflict minerals, the Electronics Industry Citizenship Coalition (EICC) has launched an initiative on the responsible sourcing of cobalt. Cobalt, which is essentially used in smartphones and electric vehicles, is not designated as a conflict mineral. However, the issue of child labor in Congo, which accounts for 60% of the diggings in the world, has been constantly raised, leading to the demand for transparency in the sourcing of cobalt and prevention of unfair transactions.

A number of global companies have joined the initiative on the responsible sourcing of cobalt as part of the efforts for responsible sourcing of conflict minerals, and ISU PETASYS has thoroughly examined the use of conflict minerals including cobalt and strengthened the monitoring on conflict minerals with potential issues.

The CSR Committee has supervised the monitoring and enhanced the system to prohibit the use of conflict minerals and also conducted monitoring on the use of conflict minerals by suppliers according to the internal management policies.

Management of Conflict Minerals

ISU PETASYS prohibits the use of conflict minerals in the internal policies and management regulations for suppliers. The company recommends the suppliers to source minerals only from smelters that comply with the Conflict Free Sourcing Initiative (CFSI), and examines whether conflict minerals are used by carrying out regular surveys and site audits.

Quality Management

ISU PETASYS has intensified its efforts for quality enhancement along with the increasing demand for quality. To prevent the occurrence of customer complaints and quality issues, the company has operated the quality management system throughout the entire process and strengthened the quality management from fundamental matters. In particular, the company has encouraged quality circle activities, and it eventually contributes to increasing the responsibility for customers and products.



Quality Circle Activity

Forming 16 quality circles and conducting activities to improve quality by process



Comprehensive diagnosis of quality issues by process through organizing short-term quality circles

Compliance with Product Environmental Regulations

ISU PETASYS complies with product environmental regulations at home and abroad to minimize the negative social and environmental impact of the production process and to protect the health and safety of customers. As part of the efforts to develop eco-friendly products, the company prohibits the introduction of heavy metal materials and complies with product environmental regulations such as Restriction of Hazardous Substances (RoHS) and Registration, Evaluation, Authorization and restriction of Chemicals (REACH). Based on the recognition that products and services can have direct impact on the health and safety of users, the company is making every effort to provide valuable products and services in the aspects of customer health and safety and also society and the environment.

Enhancement of Customer Satisfaction

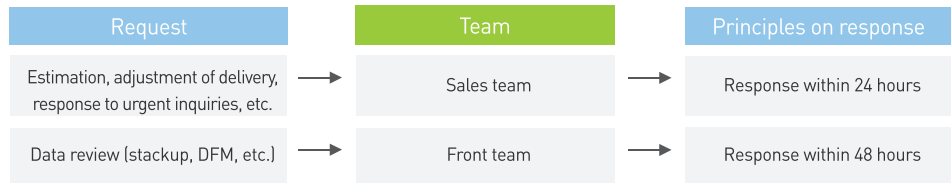


Visit to Cisco

Hearing of customer opinion and a rapid response

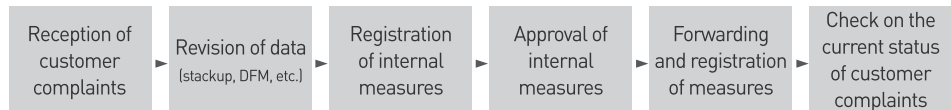
In the PCB industry where every product is made to order, listening to customer opinions and responding to customer requests in a prompt manner are considered very important. In this regard, ISU PETASYS regularly visits its customers and listens to their requirements: the customer-contact personnel in the plants or offices in Korea, the U.S, China and Asian region promptly respond to the requests of customers. In particular, the company has established a system for rapid response to customer requests upon the occurrence of requests for technical support or any issues.

Rapid Response System



Customer Complaint Management

ISU PETASYS manages information on customer complaints in a systematic way, actively responding to customer complaints and reflecting improvements on its business activities, for the purpose of enhancing product quality and customer satisfaction.

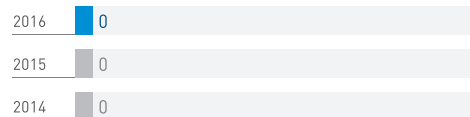


Customer complaints management Unit: %, case

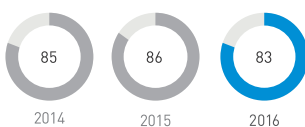
Settlement of customer complaints on time



Audit findings on quality system TL 9000



Customer Satisfaction Unit: Points



Customer Satisfaction Evaluation

ISU PETASYS has conducted a regular evaluation of customer satisfaction according to the items of on-time delivery, service & flexibility, technical support, quality, and cost, etc. For some major customers, the item of sustainability is added to evaluate their CSR activities. In 2016, the level of customer satisfaction has slightly decreased in the item of cost and thus, the company will strengthen the internal activities to increase its cost competitiveness.

6

CSR Strategy & Performance

Community Involvement & Development



Context

Businesses that create value by using social capital are required to contribute to resolving social issues apart from generating economic profits. The recent demand for corporate social contribution activities is beyond providing simple support but toward resolving local community issues, which allows businesses to strengthen their social capital.

Our Approach

ISU PETASYS strives for social contribution by utilizing its capabilities based on the understanding of local communities. The company pays attention to social issues that are caused by social phenomenon such as aging society and polarization, and engages in small-scale but practical activities.

Our Performance

Volunteer activities per employee

4 hours

Employee participation in social contribution activities

28 %

Award

The Most Loved Companies in Korea

Management System

ISU PETASYS strives to realize the value of social contribution that benefits participants as well as beneficiaries by encouraging participatory volunteer activities, not just making donation, among employees. As a company leading Daegu along with the local community, ISU PETASYS is fulfilling its roles and improving its corporate image, creating synergies between the local community and the company.

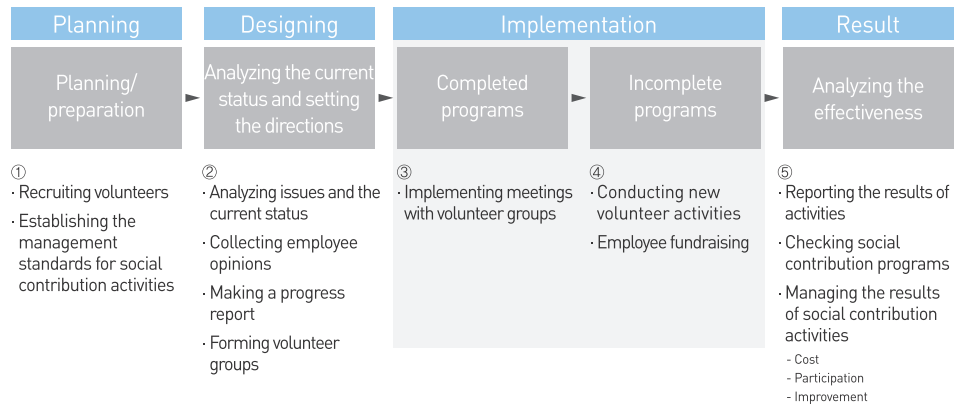
Framework and Goals

ISU PETASYS has established the 'Standards for the Management of Social Contribution Activities' to increase the effects of participation in local communities and maintain the socially responsible activities. The standards present how to conduct contribution activities with the goal of achieving mutual growth with local communities and fulfilling the social responsibility through sharing and specify the ranges and goals of activities to consolidate the system for sustainability.



Meeting with volunteer group

Process of social contribution activities



Goals of Social Contribution Activities

As of 2016

Activity	Participant	Activity	Frequency	Participant per year	Activity per year	Note
River cleaning activity	20	1.5	2	40	60	The first and second half year (April, October)
Hope Experience School	12	11.5	1	12	138	Once a year (May)
Supporting the disabled	10	3.5	12	120	420	Once a month
Blood donation by employees	40	4	2	80	320	The first and second half year (June, November)
Supporting the elderly living alone	8	4	6	48	192	February, March, June, August, October, December
Community map	8	6	2	16	96	February, March
Sharing of Half-moon Rice Cake	30	6	1	30	180	Once a year (September)
Supporting farm villages	30	6	1	30	180	Once a year (June)
Total				376	1,586	809 employees in total

Employee Participation

ISU PETASYS employees are actively engaged in local community activities, mainly in Daegu where its main places of business are located. The company operates the paid community service system to support the overall expenses of volunteer activities, and encourages the active participation and organized activities of employees.

Paid Community Service System

The paid community service system encourages employees to engage in community services in a team for up to 8 hours, once a year. The company will promote the participation of employees in social contribution activities by launching a volunteer group and making institutional supports.

Volunteering hours per individual Unit: hour, %

Volunteering hours per individual

2016	4
2015	4
2014	4
2013	3

Participation rate employees in volunteering

2016	28
2015	22
2014	18
2013	16

Key Programs

ISU PETASYS has engaged in various activities for the development of local communities. In particular, the company has developed and expanded participatory volunteer programs where not a company but its employees and stakeholders can take the initiative, and will strive for social contribution activities through a close relationship with local community members.



Dalseong Healthy Maps

Dalseong Healthy Maps

ISU PETASYS developed 'Dalseong Healthy Maps' to provide information on health-related convenient facilities for the residents in Dalseong. The maps show the regional geography of Dalseong 1st industrial complex where its places of businesses are located, and reflect the places frequently visited or used by the disadvantaged, such as senior citizens and immigrant workers. The maps were distributed at social welfare centers and senior-citizen centers and the links were shared to support a healthier life of the residents.



Housework support

Housework Support

ISU PETASYS provides housework support for senior citizens over age 60 who live alone and those with mobility difficulties: delivering lunchboxes or side dishes and improving residential environment. In this way, the company has increased the efficiency of community-based welfare services and formed a good relationship with residents through active participation in local communities.



'Vision School' with tuition fees supported

Support for Low-Income Single-Parent Families

Every year, ISU PETASYS provides 70 children from low-income single-parent families with various supports including sponsorship, tuition fees and study materials, psychotherapy, and mentoring.

Hope Experience School

In cooperation with Dalseong-Gun Social Welfare Center, ISU PETASYS has held the Hope Experience School every year to provide children from low-income families with more opportunities for cultural activities and growth. The school provides opportunities for various experience such as visit to museums and historical sites to contribute to the growth and independence of children in the local communities.



Hope Experience School

Donation of Electronic Devices

ISU PETASYS provides electronic devices, such as PC, monitor, printer, and multifunction printer, for free to underdeveloped countries in cooperation with Korea IT Welfare Agency twice a year. First, unused devices are collected and repaired, and then provided for free to the underprivileged. In 2016, a total of 64 devices were donated. The company will continue its support in cooperation with non-profit organizations and the government to provide around 100 electronic devices for free every year.



Local Community Service

Supporting Facility of the Disabled

ISU PETASYS visits Saint Joseph Hospital, which was established to improve the health of residents and employees in Dalseong Industrial Complex, once a month, conducting volunteer activities, such as cleaning buildings and repairing wheelchairs, for geriatric patients and the disabled.



Yonghocheon Cleanup Project

Yonghocheon Cleanup Project

In an effort to preserve the environment in the region, ISU PETASYS carries out environmental cleanup activities in Yonghocheon, a stream near the location of its business, together with its employees twice a year.

Promotion of Cultural and Sports Activities

ISU PETASYS supports culture and sports development fund to Daegu Football Club (Daegu FC) with about 40 companies for the promotion of cultural and sports activities in the region.



Year-end Donation

Year-end Donation

ISU PETASYS has provided support for low-income families and those in need in the region through fund-raising every year. In 2016, Seomun Market, a traditional market in Daegu, was unfortunately burned down. For the recovery of the market, ISU PETASYS employees voluntarily participated in making donations worth about USD 30 thousand to Korea Disaster Relief Association. Also, USD 13 thousand was donated to Dalseong social welfare center for supporting low-income group in local community.

2017 ISU PETASYS CSR Report

Appendix

GRI Content Index

Third Party Assurance Statement

UN Global Compact Principles

Memberships & Association

GRI Content Index

G4 General Standard Disclosures

GRI G4		Page	Verification	Notes
Strategy and Analysis				
G4-1	Statement from the most senior decision-maker of the organization	2-3	✓	
G4-2	Key impacts, risks, and opportunities	2-3	✓	
Organizational Profile				
G4-3	Organization name	4	✓	
G4-4	Primary brands, products, and services	4	✓	
G4-5	Headquarters location	4	✓	
G4-6	Number of countries where the organization operates, name of countries with locations of major operations, or with specific relevance with sustainability issues covered in the report	4	✓	
G4-7	Nature of ownership and legal form	9	✓	
G4-8	Markets served (geographic breakdown, sector served, and customer / beneficiary type)	6	✓	
G4-9	Scale of the organization	4	✓	
G4-10	a. Total number of employees by employment contract and gender	26	✓	
	b. Total number of permanent employees by employment type and gender	26	✓	
	c. Total workforce by employees and supervised workers and by gender	26	✓	
	d. Total workforce by region and gender	26	✓	
	e. Substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees	N/A	✓	
	f. Significant variations in employment numbers	N/A	✓	
G4-11	Percentage of total employees covered by collective bargaining agreements	26	✓	
G4-12	Major characteristics of the supply chain	34-38	✓	
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	8	✓	
G4-14	Precautionary approach or principle which are addressed by the organization	33	✓	
G4-15	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	53	✓	
G4-16	Memberships of associations	53	✓	
Identified Material Aspects and Boundaries				
G4-17	a. Entities included in the organization's consolidated financial statements	4	✓	
	b. Entities included in the organization's consolidated financial statements or equivalent documents are not covered by the report	4	✓	

GRI G4		Page	Verification	Notes
G4-18	a. Process for defining the report content	About this report	✓	
	b. Reporting Principles for Defining Report Content	About this report	✓	
G4-19	Material Aspects identified in the process for defining report content	15	✓	
G4-20	Descriptions of material aspect boundaries within the organization	14-15	✓	
G4-21	Descriptions of material aspect boundaries outside the organization	14-15	✓	
G4-22	Effect of any re-statements of information provided in previous reports	N/A	✓	
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	N/A	✓	
Stakeholder Engagement				
G4-24	List of stakeholder groups engaged by the organization	14	✓	
G4-25	Basis for identification and selection of stakeholders with whom to engage	14	✓	
G4-26	Stakeholder engagement approach, including frequency by type and by stakeholder group	14	✓	
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns	15	✓	
Report Profile				
G4-28	Reporting period	About this report	✓	
G4-29	Date of most recent previous report (if any)	About this report	✓	
G4-30	Reporting cycle (such as annual, biennial)	About this report	✓	
G4-31	Provide the contact point for questions regarding the report or its contents	About this report	✓	
G4-32	In accordance option, GRI Index and report assurance	48-51	✓	
G4-33	Policy and current practices regarding external assurances for the report	52	✓	
Governance				
G4-34	Governance structure of the organization	8-9	✓	
	Committees responsible for decision-making on economic, environmental and social impacts	8-9	✓	
Ethics and Integrity				
G4-56	Description of the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	7	✓	

G4 General Standard Disclosures

GRI G4			Page	Verification	Notes
Specific Standard Disclosures : Economic					
G4-DMA (Disclosure on Management Approach)			18		
Economic Performance	G4-EC1	Direct value generated and distributed	6	✓	
	G4-EC4	Financial assistance from governments	N/A	✓	
Indirect Economic Performance	G4-EC7	Significant infrastructure investments and services supported	6	✓	
	G4-EC8	Significant identified indirect economic impacts	6	✓	
Specific Standard Disclosures : Environment					
G4-DMA (Disclosure on Management Approach)			28		
Materials	G4-EN2	Percentage of recycled input materials used	31	✓	
Energy	G4-EN3	Energy consumption within the organization	32	✓	
	G4-EN6	Reduction of energy consumption	32	✓	
Water	G4-EN8	Total water withdrawal by source	30	✓	
Emission	G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	32	✓	
	G4-EN16	Indirect greenhouse gas (GHG) emissions (Scope 2)	32	✓	
	G4-EN19	Reduction of greenhouse gas (GHG) emissions	32	✓	
	G4-EN21	Amount of significant air emissions (NOX, and SOX, etc.)	30	✓	
Effluents and Waste	G4-EN23	Weight of hazardous and non-hazardous waste by disposal methods	31	✓	
Products and Services	G4-EN27	Extent to which environmental impacts of products and services have been mitigated	28-32	✓	
Compliance	G4-EN29	Significant fines and non-monetary sanctions	N/A	✓	
Specific Standard Disclosures : Society					
Society (Labor Practices and Rights)					
G4-DMA (Disclosure on Management Approach)			23		
Employment	G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender, and region	26, 12	✓	
	G4-LA2	Benefits for full-time employees of the organization	27	✓	
	G4-LA3	Return to work and retention rate after parental leave, by gender	27	✓	
Occupational Health and Safety	G4-LA6	Rates of injury	28	✓	
Training and Education	G4-LA9	Average hours of training for employees	23	✓	
	G4-LA10	Programs provided to upgrade employee skills	27	✓	

GRI G4			Page	Verification	Notes
Diversity and Equal Opportunity	G4-LA12	Percentage of individuals within the organization's governance bodies in diversity categories	25	✓	
Equal Remuneration for Women and Men	G4-LA13	Ratio of the basic salary and remuneration of women to men for each employee category	25	✓	
Supplier Assessment for Labor Practices	G4-LA15	Potential negative impacts for labor practices in the supply chain and actions taken	35	✓	
Labor Practices Grievance Mechanisms	G4-LA16	Number of grievances	24	✓	
Society (Human Rights)					
G4-DMA (Disclosure on Management Approach)			23		
Non-discrimination	G4-HR3	Total number of incidents of discrimination and actions taken	N/A	✓	
Freedom of Association and Collective Bargaining	G4-HR4	Measures taken by the organization intended to support rights to exercise freedom of association and collective bargaining	26	✓	
Society (Society)					
G4-DMA (Disclosure on Management Approach)			34, 43		
Local Community	G4-S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs	43-46	✓	ISU PETASYS HQ (Daegu operating site), 100% participated
	G4-S02	Operations with potential negative impacts on local communities	N/A		
Anti-Corruption	G4-S03	Number and percentage of operations assessed for risks related to corruption	35	✓	
	G4-S04	Communication and training on anti-corruption policies	36	✓	
	G4-S05	Corruption and action taken	35	✓	
Society (Product Responsibility)					
G4-DMA (Disclosure on Management Approach)			39		
Customer Health and Safety	G4-PR2	Incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services	N/A	✓	
Product and Service Labeling	G4-PR5	Conclusions of customer satisfaction surveys	42	✓	
Customer Privacy	G4-PR8	Number of substantiated complaints received concerning breaches of customer privacy	N/A	✓	

Third Party Assurance Statement

To the stakeholder of ISU PETASYS:

This Third Party Assurance Statement is prepared for ISU PETASYS. Marcspoon Inc. (hereinafter "assurance provider") has been requested by ISU PETASYS to verify the contents of its CSR Report 2017 (hereinafter "the Report").

Assurance Standard

The assurance provider performed a Type 1, moderate level of assurance using AA1000AS (2008) as an assurance standard, and reviewed suitability according to Principles of Inclusivity, Materiality and Responsiveness. In addition, the assurance provider checked the compliance with the GRI G4 guidelines and ISO 26000.

Assurance Scope

The scope of Third Party Assurance Statement is from January 1 to December 31, 2016, which is same as the reporting period of the Report. The assurance provider reviewed social, economic and environmental performance of ISU PETASYS.

Assurance Process

The assurance provider took the following process of review in order to check the Report's reliability and internal process used by ISU PETASYS to obtain data in the Report.

- » Review of methodology and process used to calculate data
- » Review of reporting contents' reference document and data
- » Interviewing with stakeholders related with reporting contents
- » Review of material issue selection process
- » Review of compliance with the GRI G4 guidelines in terms of contents and quality

Our Conclusion

The assurance provider reviewed reporting contents from draft

and provided opinions to ISU PETASYS, and revision was reflected as necessary. The assurance provider verified that the Report contents reflect the CSR activities and performance sincerely and fairly without critical errors or prejudice. Also, it was verified that the Report is prepared in accordance with the 'Core Option' of GRI G4.

The Report properly reflects the organization's alignment to and implementation of the AA 1000 Assurance Standard (2008) principles of Inclusivity, Materiality and Responsiveness in its operations. Details are provided below;

- » Inclusivity : ISU PETASYS is maintaining the process of stakeholder engagement. Information is actively shared through a variety of stakeholder communication channels, and ISU PETASYS collects and reflects the opinions.
- » Materiality : The Report contains material issues of ISU PETASYS through conducting materiality assessment on economic, environmental and social issues. The assurance team could not find any critical issues left out in this process.
- » Responsiveness : The assurance provider reviewed that the Report reflects the identified material issues and ISU PETASYS responds to stakeholders' opinions through the stakeholder response process.

Recommendation for Improvement

The assurance provider highly appreciates ISU PETASYS' effort and performance to strengthen its CSR management. The following recommendations are to improve the quality of the next CSR Report and CSR management.

- » Promote CSR management-related goals and tasks to the next level and introduce them to employees more actively.
- » As ISU PETASYS has focused on building and promoting systems so far, it is recommended to communicate with external stakeholders to introduce its efforts for CSR management and gain sympathy from now on.

marcspoon

July 2017
MARCSPON CEO Jung-Won Han

한정원

UN Global Compact

In order to support and implement corporate social responsibility, ISU PETASYS has participated in UN Global Compact Principle as a global initiative. ISU PETASYS will secure the global level of CSR competitiveness by actively integrating UNGC's ten principles in four areas of human rights, labor, the environment and anti-corruption into its CSR policy and operation.

Human Rights	Principles 1 Principles 2	Businesses should support and respect the protection of internationally proclaimed human rights; and make sure that they are not complicit in human rights abuses.
Labour	Principles 3 Principles 4 Principles 5 Principles 6	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced and compulsory labour the effective abolition of child labour; and the elimination of discrimination in respect of employment and occupation.
Environment	Principles 7 Principles 8 Principles 9	Businesses should support a precautionary approach to environmental challenges; undertake initiatives to promote greater environmental responsibility; and encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	Principles 10	Businesses should work against corruption in all its forms, including extortion and bribery.

Memberships and Association

Daewoosky Institute	Daekyung PSM Council Meeting	Dalsung Industrial Complex Environment Monitoring Meeting
Dalsung Industrial Complex Safety Health Management Meeting	Electronics and Telecommunications Research Institute	Federation of Korea Trade Unions
KISANHYUP	Korea Advanced Institute of Science and Technology	Korean Environmental Engineers Association
Korea Electric Engineers Association	Korea Exchange	Korea Industrial Safety Association
Korea International Trade Association	Korea Listed Companies Association	Korea Printed Circuit Association
UN Global Compact		

**2017 ISU PETASYS
CSR Report**

CONTRIBUTORS TO REPORT PREPARATION
Contributors to 2017 ISU PETASYS CSR Report

Contributors		Printing
Management Support team	Ji-Hye Kim	August 2017
Maintenance & Engineering team	Hyun-Pil Shin	
Purchasing team	Won-Seok Jung	Publication
Planning & Cooperation team	Do-Kyun Kim	August 2017
Planning & Cooperation team	Su-jin Jeong	
Production Control team	Jung-Soo Kim	Department
Sales team	Bo-Kyoung Yoon	Planning & Cooperation team
Human Resources Labor team	Ye-Chan Lee	
Quality Control team	Hui-Seong Jeong	Inquiry
Quality Assurance team	Ji-Min Kim	Tel. 053-610-4538
Environment & Safety & Health team	Ki-Nyun Kim	E - mail. jsj1050@isu.co.kr

Headquarters 36, Nongong-ro 53-gil, Nongong-eup, Dalseong-gun, Daegu, Korea
Seoul Office 84, Sapyeong-daero, Seocho-gu, Seoul, Korea

ISU PETASYS



To minimize environmental impact through the entire life-cycle of this eco-design report, ISU PETASYS has used soybean oil and shunned the the use of spot color printing and coating.