



CREATE BEAUTIFUL FUTURE WITH ABUNDANCE AND CONVENIENCE

ISU PETASYS SUSTAINABILITY REPORT 2021



The spot color, soy ink, and coating processes were avoided to minimize the impact to the environment and waste of resources typically found in the design and printing of reports.



ABOUT THIS REPORT

Since 2015, ISU PETASYS has published its Corporate Social Responsibility (CSR) Report biennially to transparently disclose and convey its non-financial performance and activities that put basis on environmental, social, and governance (ESG). Through our fourth CSR Report for this year, we aim to accomplish sustainable development through our active communication with stakeholders.

Reporting Scope and Boundaries

This report primarily indicates ISU PETASYS' corporate activities and performance outcomes on all fields of CSR defined under the global initiatives of Global Reporting Initiative (GRI) Standards and ISO 26000. We specified matters related to our affiliates, including ISU EXABOARD (Korea), ISU PETASYS Corp. (U.S.), and ISU PETASYS Asia Limited (China).

Reporting Period

This report mainly conveys ISU PETASYS' CSR activities and outcomes from January 1, 2020 to December 31, 2020. Some critical issues include the company's performance until 2021. We used data of the latest three fiscal years to display trends in time series as required.

Reporting Standards and Report Assurance

The report was written in accordance with the GRI Standards: Core option and the international standard ISO 26000 (Guidance on social responsibility). In addition, we obtained an independent third-party assurance to ensure the reliability of the content. The assurance agency's statement and results are found in the Third-party Verification Opinion of this report.

More Information about the Report

You can also download the Korean and English versions of this report from our website (www.petasys.com). Please feel to reach out to us through the contact point below for any inquiry about the report.

Inquiry

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ISU PETASYS SUSTAINABILITY REPORT 2021

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CEO Message



Dear stakeholders,

First, I would like to express my sincere gratitude for your unwavering affection and support toward ISU PETASYS.

We at ISU PETASYS are aggressively exploring new solutions to cope with the fluctuating internal and external environments. Uncertainties in the business environment around us is ever-increasing with the spread of COVID-19, the advent of Industry 4.0, and stagnating economic growth. That is why we are now exerting more effort to secure sustainable competitive advantages by proactively responding to such changes. At the same time, we understand the nature of corporate citizenship, and are fully aware of the significance of our obligation in fulfilling our corporate social responsibility (CSR). Therefore, we will put our utmost effort in creating sustainable value in the whole gamut of CSR.

The global COVID-19 pandemic has brought both crises and opportunities, simultaneously.

This year again suffers from the worst economic stagnation caused by the increased number of confirmed cases, and our society shows that no company is safe from this slump. We believe that, while the economic recession continues to worsen, there will still be opportunities in the network market for us to grow further due to the increasing demands for contactless technology and expansion of the 5G-based infrastructure. That being said, what is important now is how to take advantage of such opportunities. Therefore, ISU PETASYS will pursue a new, innovative transformation to secure sales volume for the next growth engine and enhance cost competitiveness, leading to a better future in this rapidly changing era.

In addition, ISU PETASYS will continue to strengthen its commitment to creating social value.

ISU PETASYS has remained dedicated to its business strategy of sustainable growth, and implementing it to a variety of activities across all CSR fields, such as human rights, safety, environmental protection, fair operations, product responsibility, and community participation. Our continuous improvements focus on creating an advanced system in line with changing global initiatives, such as the Responsible Business Alliance and the United Nations Global Compact, and establishing a key performance indicator. Moreover, we continuously strive to evaluate and reduce potential risks based on ESG indices.

ISU PETASYS remains dedicated to its goal of sustainable growth by finding new opportunities via efficient adaptation to the ever-changing business environment, and contributing to the creation of a more prosperous future for all. We ask for your continuous support and encouragement as we fulfill our corporate social responsibility.

Thank you.

President / CEO **Young-joon Seo**

Overview of the Company

1.1 General Status

ISU PETASYS is a company that produces ultra-high layer printed circuit boards (PCBs) used in network equipment (e.g., switches and routers), servers, storage equipment, and supercomputers, among others. We are leading the global market by developing high-quality products.

* PCB : Printed Circuit Board

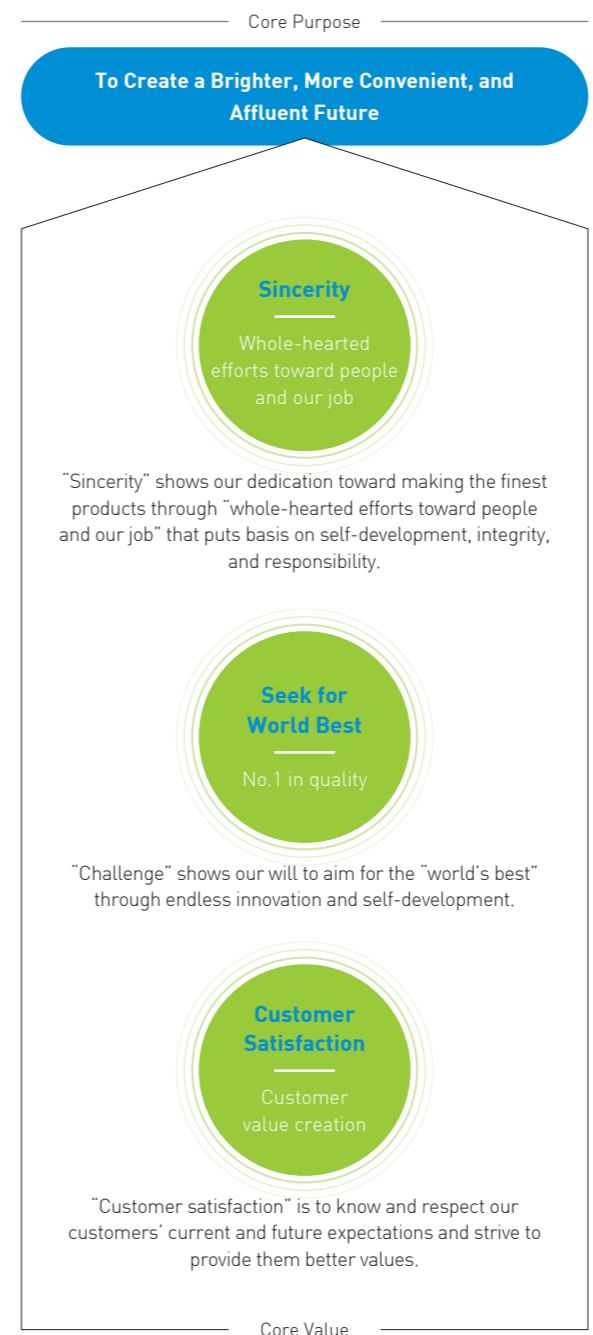
Overview	
Company Name	ISU PETASYS Co., Ltd.
CEO	Young-joon Seo
Date Established	February 1972 (PCB business commenced in June 1989)
Key Business Areas	PCB manufacturing and sales
Offices	Head Office 36, Nongong-ro 53-gil Nongong-eup, Dalseong-gun, Daegu, Republic of Korea Seoul Office 84, Sapyeong-daero, Seocho-gu, Seoul, Republic of Korea
Number of Employees	883 employees
Capital (Consolidated)	KRW 41.3 billion
Sales (Consolidated)	KRW 514.2 billion
Affiliates	ISU EXABOARD Co., Ltd., ISU PETASYS Corp., ISU PETASYS Asia Limited

1.2 History

1990s	2000s	2010s	2018 ~
February 1972 Founded ISU PETASYS	August 2000 Listed on KOSDAQ	April 2011 Founded ISU EXAFLEX	November 2018 Selected as an outstanding workplace for workers' health improvement
June 1989 Commenced PCB business	September 2000 Founded ISU PETASYS AMERICA	November 2013 Founded ISU PETASYS HUNAN	November 2018 Won the Minister Award as The Most Loved Companies in Korea
November 1995 Incorporated into ISU Group	October 2003 Listed on Korea Exchange (KRX)	October 2014 ISU EXABOARD merged ISU EXAFLEX	November 2018 Acquired top-rated AA for the ESG index (Sustainvest)
June 1998 Built the second plant	November 2004 Founded ISU EXABOARD	October 2015 Built the third plant	December 2018 Received Presidential Citation for labor-management contribution
	November 2007 Acquired AS9100 (PCBs for aerospace)	November 2015 Acquired ISO/TS 16949 (Automotive Quality Management)	April 2019 Awarded the TOP Direct Component Supplier by Juniper
	January 2008 Certified as "Advanced Level Technology Company" by Cisco	November 2016 Awarded The Most Loved Companies in Korea by the government (CSR)	April 2019 Awarded for Excellence in Technology by Palo Alto
	October 2008 Acknowledged as "Supplier of the Year" by Cisco	July 2017 Acknowledged as an employment-friendly company	February 2021 Developed RF radar for automobiles (ETRI)
	October 2009 Acknowledged as "Supplier of the Year" by Cray	December 2017 Acquired IATF 16949 (Automotive Quality Standard)	June 2021 Developed HPC motherboard (KISTI)

1.3 Management Philosophy

Under the goal of striving toward a bright, convenient, and affluent future, ISU PETASYS sets sincerity, seek for world best, and customer satisfaction as its core management values. We make sincere, whole-hearted efforts and engage in continuous innovation and self-development through challenges and better values to provide the best products to drive customer satisfaction.



1.4 Management Strategy

As a leading company in the ultra-high layer PCB industry worldwide, ISU PETASYS conducts in-depth analysis on market environment fluctuations and actively applies them in management strategies. Our core management strategies aim for KRW 400 billion sales in 2023 through customer-centric management, strengthening cost competitiveness, and risk management. We are putting forth efforts to create sustainable values through our partnership with stakeholders, including customers, shareholders, employees, and local communities.

Core Management Strategies



1.5 Business Areas

ISU PETASYS specializes in ultra-high layer PCBs and produces PCBs used in networks, servers/storages, supercomputers, aerospace, IC testers, automotive radars, and base stations. PCB refers to any essential electricity or electronic part that electrically connects or mechanically fastens various electronic components.

Our Business Areas

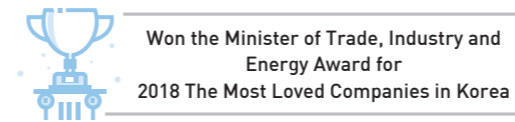


The COVID-19 pandemic drove increasing network infrastructure demands, so the significance of high-multilayer and high-density PCBs mounts for quick data transmission and processing. We will engage in technological development for high-value products and challenge next-generation industries, thus stabilizing our position as a global PCB manufacturer.

Our CSR Activities

2.1 CSR Strategy System

ISU PETASYS propels its CSR objective and six strategic goals to fulfill social responsibility management company-wide. We drew detailed action plans and performance indicators for the six strategic goals to examine, inspect, and improve annual performances.



2.2 CSR Committee

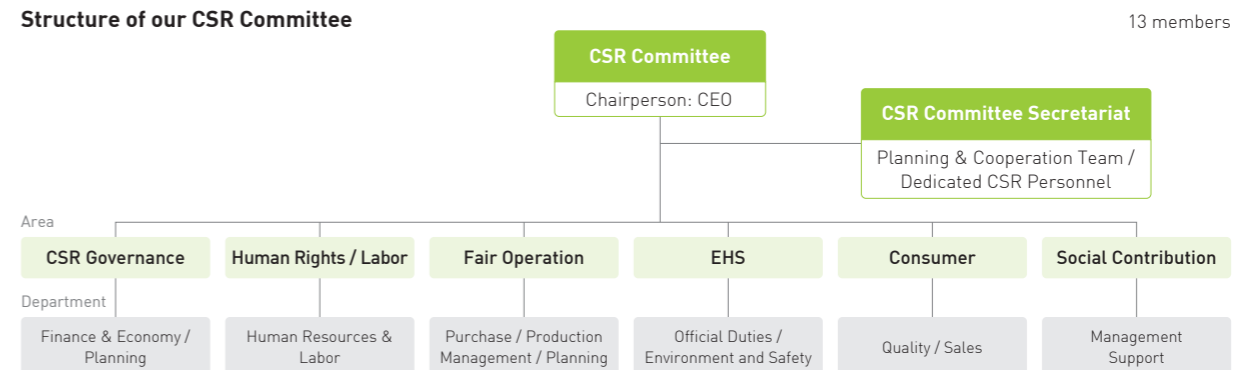
ISU PETASYS operates its CSR Committee as a subcommittee within the Board of Directors and nominates the CEO as the chairperson.

Under the supervision of the CSR Committee secretariat (Planning & Cooperation team), the committee is participated by the Board of Directors and officers in charge of each area. It deliberates on CSR-related strategies and policies also inspects the CSR status, key performances, and plans. The sixth CSR Committee was held in 2020, and the agenda per CSR area is as follows.

2020 CSR Committee Agenda

1 CSR Governance - Preparation against CSR site audit - Establishment of a new CSR risk analysis process and preparing risk reports - CSR risk mitigation activities - Establishment and execution of communication processes	4 ESH - Improvements in the training and management process of the emergency response team (ERT) - Assessment of education and training needs related to environmental safety and health (ESH) - Water-saving activities - Systematization of energy-saving activities - Collection of ideas for energy reduction
2 Human Rights and Labor - Updates to the compliance risk management system	5 Customer Responsibility - Continuous updates to the customer database - Quality TFT activities
3 Fair Operation and Sustainable Procurement - Updates to the CSR survey audit	6 Community Engagement - Various social contribution programs - Activation of corporate volunteer groups

Structure of our CSR Committee



Governance

3.1 Operation of Board of Directors and its Composition

As the highest decision-making body at ISU PETASYS, our Board of Directors deliberates and decides on key

management issues. It consists of three internal directors and one external director. The directors' term of office is three years, and their remuneration is determined at the general shareholders meeting. The CEO serves as the chairperson, and directors specializing in various fields are nominated to reinforce the expertise of our Board of Directors.

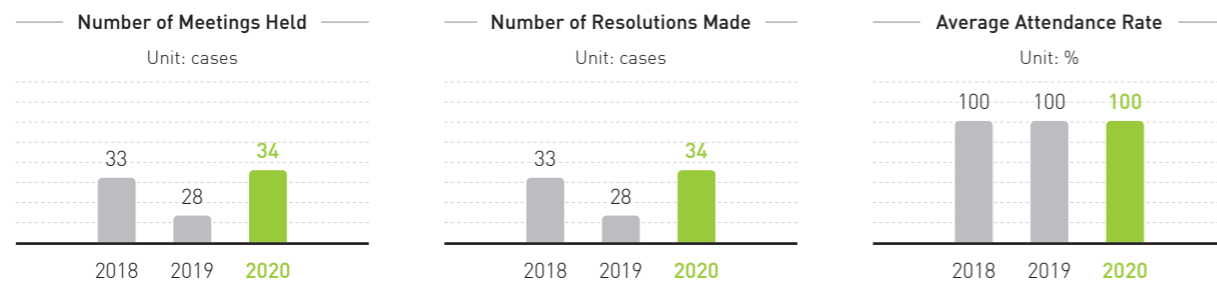
Composition of the Board of Directors

As of March 2021

Name	Category	Post	Area of Expertise	Major Background
Young-joon Seo	Standing Director	CEO	Electronic Engineering	Kumoh National Institute of Technology Department of Mechanical Engineering
Uk-hyeon Oh	Standing Director	Sales Director	Sales	Yeungnam University Department of Industrial Chemistry
Byeong-ho So	Standing Director	Production Director	Production	Yeungnam University Department of Industrial Chemistry
Jae-gyeong Lee	Non-standing Director	External Director	Business Administration	University of Texas at Austin, McCombs School of Business Professor at Kookmin University Department of Business Administration
Gwan-sik Go	Standing Director	Audit	Economics	IT Division Leader at the Korea Development Bank

Performance of the Board of Directors

As of December 31, 2020



3.2 Transparency of the Board of Directors

ISU PETASYS discloses all directors' information before nominating a director at the general shareholder meeting. We also publicize the director's relationship with the recommender and the largest shareholder and breakdown of trades with ISU PETASYS. Most director appointment takes place through shareholder voting on the director candidate recommended by the Board of Directors. In addition, our full-time auditor engages in accounting and auditing affairs employed under the Commercial Act, and the auditor attends the Board of Directors to state his/her opinion. When appointing an auditor, it is stipulated that a shareholder with 3% or more of issued stocks with voting rights shall not exercise his/her voting rights for the exceeding amount of shares.

3.3 Evaluation and Remuneration

Remuneration for the Board members shall be paid within the remuneration limit approved at the general shareholder meeting according to the compensation payment standards for directors' performance. The remuneration for the Board members includes basic salary and bonuses. The bonus is calculated based on not only quantitative indicators, such as company sales, operating income, and current net income, but also non-quantitative indicators, such as leadership, expertise, and ethical management performance. The Board of Directors' remuneration details are disclosed on the Data Analysis, Retrieval and Transfer System (DART) of the Financial Supervisory Service.

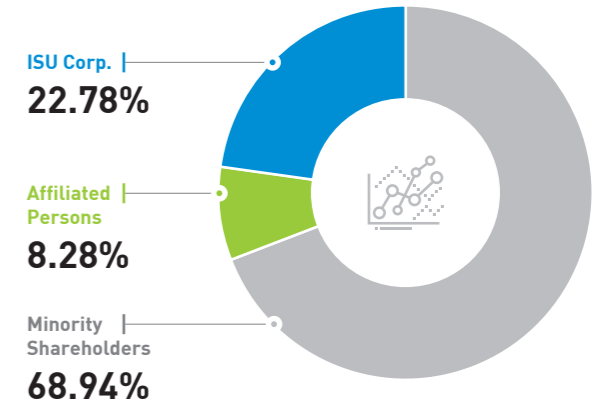
3.4 Ownership Structure and Communication

ISU PETASYS holds a general shareholder meeting on a yearly basis and actively reflects shareholders' opinions on corporate decisions and management and makes sure that shareholders participate in director nomination.

Moreover, we officially announce primary management matters on our website and DART to enthusiastically promote communication with shareholders.

Ownership Structure

As of December 31, 2020



Ethical Management

4.1 Ethical Management

Ethical Management System

ISU PETASYS complies with its Code of Ethics to create a sound corporate culture and fulfill ethical management. We encourage all employees and external stakeholders, including our partners, to be aware of and abide by our

Code of Conduct since it is essential for ethical management. Our Code of Ethics comprises an extensive scope of ethical regulations, including the attitude toward stakeholders, investors, customers, competitors, and partners, responsibilities for employees and the society, and the basic ethics of employees. Also, the Ethical Management Committee is in operation to improve corporate reliability and respond to ethical issues on time.

Our Code of Ethics

 <p>Attitude Toward Stakeholders and Investors</p> <ul style="list-style-type: none"> - Protection of stakeholders' rights and interests - Equal treatment - Active provision of information 	 <p>Attitude Toward Customers</p> <ul style="list-style-type: none"> - Customer respect - Customer protection 	 <p>Attitude Toward Competitors and Partners</p> <ul style="list-style-type: none"> - Fair competition with competitors - Fair trade with partners
 <p>Responsibility to Employees</p> <ul style="list-style-type: none"> - Respect in the workplace and equal treatment of employees - Creating a decent working environment 	 <p>Social Responsibility</p> <ul style="list-style-type: none"> - Compliance with domestic and foreign laws and regulations - Contribution to national economic and social development - Environmental protection - Prohibition of inappropriate political involvement 	 <p>Basic Ethics of Employees</p> <ul style="list-style-type: none"> - Settlement of a sound corporate culture - Prohibition of conflict of interest - Prohibition of internal information use - Protection of corporate property and critical information - Prevention of sexual harassment in the workplace - Prohibition of receipt of financial or material benefits - Compliance with the Code of Ethics

4.2 Enculturation of Ethical Management

ISU PETASYS raises employees' awareness of integrity and internalizes the value of human rights through the Employee Code of Ethics and Respect for Human Rights Guidelines. Through the anti-corruption and anti-bribery principle, we prohibit our employees from any act of bribery or conflict of interest, such as receiving money, treatment, or accommodations, from a stakeholder under any circumstance. In 2020, we provided anti-corruption education to 874 employees and partners to internalize ethical management, and there has not been a single case of violation related to anti-corruption during the reporting period.

4.3 Whistle-blower System

ISU PETASYS operates a whistle-blower system for external stakeholders and its employees. All stakeholders of ISU PETASYS can freely report any act that goes against ethical management through our website's online reporting system (<http://www.petasys.com/kor/csr/cyber.jsp>), as well as via e-mail, telephone, and our Intranet mobile application. The Ethical Management Committee ensures fair operation of the whistle-blower system as the body of deliberation.

For active operation of the system, the reporters' personal information is strictly kept confidential to protect their identity. In case the report is made from the inside, the whistleblower is protected against disadvantaged treatment in terms of evaluation, reassignment, or finances. On the contrary, the whistleblower receives extra points in work performance if reporting allegations of bribery.

4.4 Ethical Management Monitoring Process

ISU PETASYS' ethical management monitoring process internalizes and continuously improves the company's ethical management. We conduct separate internal audit once a year. The ethical management monitoring process primarily verifies core ethical issues, such as anti-corruption, anti-bribery, fair competition, and anti-discrimination and checks the ethical management system's effectiveness, efficiency, and sustainability. Through this process, we grasp the policies and institutions for improvement and simultaneously seek for proactive countermeasures against potential issues. According to the 2020 ethical management monitoring results, we discovered four rooms for improvement and solved all cases accordingly.



Online Hotline



Risk Management

5.1 Risk Management System

ISU PETASYS categorizes potential risks for identification and management.

For thorough risk management, we not only comprehend risks and opportunities but also draw out their impact on business, the possibility of occurrence, risk severity, preventability, risk rating, and countermeasures.

Internal Accounting Control System

Our internal accounting control system confirms whether "internal control" fulfills adequate procedures under accounting standards.

We comply with accounting-related laws and regulations and prevent fraudulent acts or mistakes that infringe the accounting information published on our internal accounting control system, which is why internal and external parties confide in the company. The CEO serves as the chief operator of the system, and a full-time director with accounting expertise is appointed as the manager. The manager administers strict system compliance, infringements of accounting regulations, and accuracy of accounting information.

The internal accounting control system is currently being improved in line with the amended Act on External Audit of Stock Companies, which requires overall system supplementation.



1. Requirements of the Act on External Audit of Stock Companies

The Act on External Audit of Stock Companies was amended in 2018, adding external audit obligations for each company's internal accounting control system.

External Audit for the Internal Accounting Control System NEW

- An independent audit conducted to check the effectiveness and critical strengths and weaknesses of a company's internal accounting control system
- Grade of audit: Adequate / Negative / Limited application

External Audit for Financial Statements

- Reasonable and fair confirmation of the financial statement based on significance
- Grade of audit: Adequate / Limited / Negative / No comment

2. Amendment date of the Act on External Audit of Stock Companies

Assets as of Last Fiscal Year-end	Separate	Consolidated
Listed Company		
KRW 2 trillion or more	2019	2022
KRW 500 billion or more	2020	2023
KRW 100 billion or more*	2022	2024
Total	2023	2024
Unlisted Company	N/A	

* KRW 270 billion as of the end of 2020

In line with the amended date of the Act on External Audit of Stock Companies, ISU PETASYS initiated overall internal accounting improvements from May 2021. After our advancements in separated financial statements, we plan to make advancements in consolidated financial statements as well in 2023.

3. Internal Accounting Control System Supplementation Process

1. Analysis and Planning

- Grasp performance scope
- Identify and evaluate risks

2. Entity-level Controls (ELC)

- Update the company-level control systems by reflecting model criteria

3. Process-level Control (PLC)

- Review control adequacy and completeness
- Update the flow chart/technical document

4. IT General Controls (ITGC)

- Identify relevant IT applications and their levels of control

5. Documentation of Design & Operation Evaluations

- Create a manual for the internal accounting control system operation and evaluation

ISU PETASYS organized the departments for managers (lead department), key managers, and working-level staff. We plan to complete the system establishment and stabilization in 2021 and apply the system in practical affairs from 2022.



Compliance Risk

ISU PETASYS strictly complies with the laws and regulations of the country at both domestic and overseas business sites. Our guidelines on CSR-related laws and regulations remarkably observe and execute all CSR-related rules and international agreements stipulated for corporate activities, thus reducing the possibility of risks arising from legal violations. We periodically update our knowledge of enactments and amendments of CSR-related laws and regulations in carrying out our business activities and identify tasks and action plans accordingly.

Business Continuity

As the significance and impact of CSR management grow by the day, the occurrence of CSR risks has a profound impact on business continuity. Accordingly, we conduct regular and occasional risk assessments, where the regular risk assessment takes place once every year in principle, and the occasional risk assessment is conducted in case of changes in the business or environment faced by each functional organization. For an appropriate risk impact assessment, we not only comprehend risks and opportunities but also draw out their impact on business, the possibility of occurrence, risk severity, preventability, risk rating, and countermeasures. In acknowledgment of the significance of post-management, we re-assess the risk management results within six months after improvements have been made on all risks.

Information Security

ISU PETASYS prepares against system failure and information security incidents through electronic management procedures. We install primary information systems in restricted areas with physical security, monitor information system anomalies on a weekly basis, and check the performance and capacity status of critical information systems. In addition, we renew the information security pledge annually and offer educational programs, including job digitization, professional computer system education, and PC user courses. Through these programs, we encourage all employees to actively respond to information security risks and enhance their information protection capabilities.



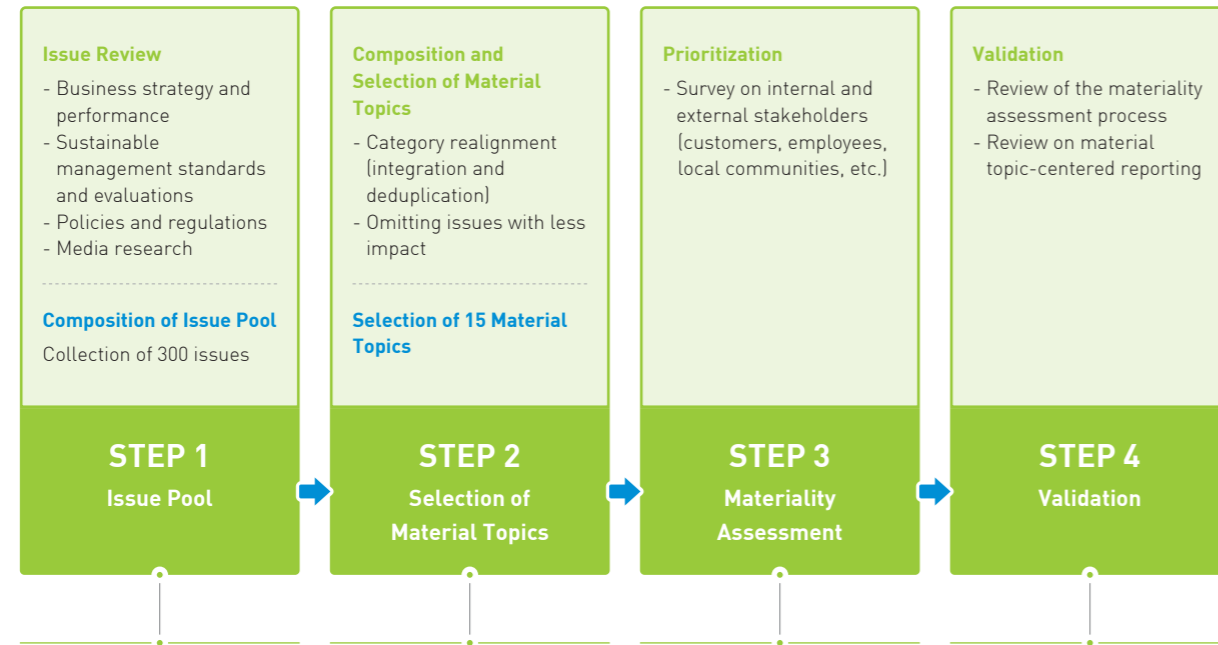
Materiality Assessment and Stakeholder Engagement

Aiming to draw material issues for sustainable management and CSR activities, ISU PETASYS executed internal and external environment analyses on the global sustainability management trends, reports of critical industry issues, and pending management issues. In addition, we conducted a survey targeting core stakeholders and reflected their opinions on this report.

6.1 Materiality Assessment Process

Materiality assessment is conducted to effectively reflect internal and external business environments and stakeholders' expectations and issues of interest on the report. This report, in particular, conforms to the guide-

lines on determining and constituting report matters proposed in the Global Reporting Initiative (GRI) Standards. 300 sustainability management-related issues were collected in total, and 15 material topics were integrated and categorized according to the GRI Standards. Internal and external stakeholders determined the priority of the 15 material topics, and the materiality assessment process are as follows.



We conducted various internal and external environmental analyses to identify issues significant to the company. We identified 300 issues through media research and analysis of government policies and regulations, benchmarking cases, and investors' opinions.

We categorized the 300 issues into a total of 15 material topics through integration and duplicate removal process.

From April 26 to May 14, 2021, we conducted a survey targeting various stakeholder groups to prioritize the final 15 material topics. The stakeholder groups participating in the survey included customers, employees, partners, shareholders, investors, the government and relevant agencies, and local communities.

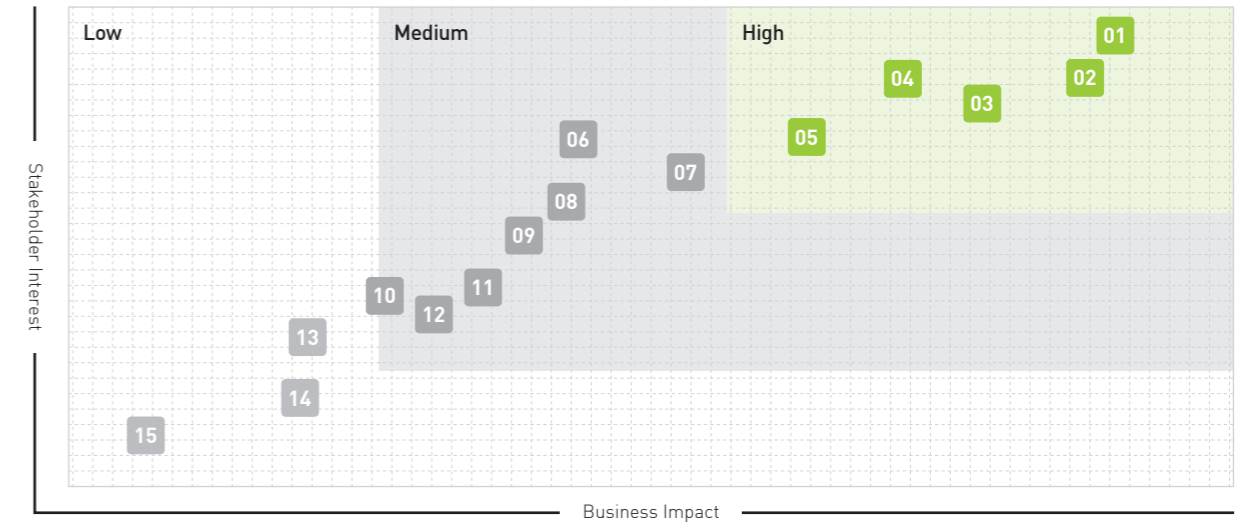
In order to guarantee objectivity and accuracy of the materiality assessment process, we validated the material topic selection process along with the material topics.



6.2 Materiality Matrix

The priority of material issues selected through the materiality assessment procedure was categorized into three grades—high, medium, and low—based on stake-

holder opinions and strategic significance. According to the materiality matrix, the importance level was found to be in the order of sales capacity enhancement, business performance, innovation in production, quality control enhancement, and workplace health and safety, from highest to lowest. We made sure to apply all material topics to the report.



6.3 List of Material Topics

Rank	Material Aspects	Detailed Issues
01	Sales Capacity Enhancement	Finding new and potential customers and strengthening on-site sales
02	Business Performance	Sales amount, sales revenue, and growth rate
03	Innovation in Production	Automating the production process, establishing a stable production system, and strengthening production efficiency
04	Quality Control Enhancement	Improving product quality through quality control
05	Workplace Health and Safety	Promoting employees' safety and health
06	Risk Management	Understanding potential risks and future opportunities, and advancing risk management
07	Developing New Growth Engines	Propelling and stabilizing new businesses, and developing core technologies
08	Developing and Cultivating Talents	Cultivating talents through systematic education and support
09	Environmental Management	Compliance with environmental laws and regulations on raw materials, water, and greenhouse gas emissions
10	Ethical Management	Internalizing ethical management based on ethics, integrity, and anti-corruption
11	Human Rights Management	Accepting diversity, providing equal opportunities, and prohibiting child labor
12	Shared Growth	Supporting supply chains and partners
13	Governance	Ensuring the transparency, expertise, and diversity of governance
14	Stakeholder Engagement	Listening and reflecting stakeholder opinions
15	Engagement in Community Development	Supporting and participating in community development activities

CSR STRATEGY & PERFORMANCE

1. Sustainable Growth
2. Human Rights and Labor
3. Environment, Safety, and Health (ESH)
4. Sustainable Supply Chains
5. Strengthening Product Liability
6. Encouraging Community Engagement



Sustainable Growth



MANAGEMENT APPROACH

Context

Amid lifestyle changes triggered by the COVID-19 pandemic, the IT-centric manufacturing environment also sees rapid changes. Competition among PCB manufacturers in Greater China intensifies, and there are difficulties such as increased production cost due to the production of multi-variety items. In response, the industry realizes the ever-growing significance that competitiveness must be raised for sustainable growth.


Our Approach


ISU PETASYS prospects to continue stable growth trends by its leading business areas, which are wired equipment and servers. While continuously developing high-potential servers to attract new customers, we will intently search for opportunities to enter new high-tech markets, such as the 5G industry, and increase our supply volume.

Our Performance

 **KRW 514.2 billion**
Sales
Consolidated

 **No. 2**
In Market Share
The world's highest ultra-high layer PCB at 18 layers and higher

 **82 points**
For Customer Satisfaction

 **100%**
Timely Resolution Rate of Customer Complaints

1.1 Response to Fluctuating Market Trends

ISU PETASYS' PCB Market

ISU PETASYS' leading market, the network equipment sector, presents stable growth due to increasing demands for data transmission capacity and speed. The data center supply displays steadily increasing demands as more people tend to learn online. By analyzing internal threats and external opportunities, we capture new growth opportunities and prepare against risks. The market faces fluctuating environments caused by increasing server demands or the introduction of 5G promoting wireless network market growth. In response, we monitor the changing market and set strategic directions to cope with such changes.

Market Analysis

Wired Networks of Telecommunications Operators

- Growing demands due to environmental changes in network
- Continuously increasing demands to exchange equipment according to rising traffic

Wireless Networks of Telecommunications Operators

- Integrating equipment in line with technological changes in wireless networks

Data Center

- Increasing demands for advanced servers due to extended cloud services

HPC

- Rising demands for advanced HPC servers due to expansions of deep learning and AI technologies

Opportunities

- Growing demands for network equipment aroused by contactless infrastructure expansions
- Continuously increasing server demands

Threats

- Intensifying pressure of unit price discounts by clients
- Enlarging market shares in Greater China
- Upward leveling of technical skills

Strengths

- Rated excellent for quality by clients

Weaknesses

- Necessity to increase cost competitiveness

Obtain Maximum Quantity by Supplementing Internal Weaknesses

PCB Technology Trends

PCB technologies are being advanced consistently to respond to high-speed signals, since they are proportional to network transmission speed. High-tech network equipment in the market shows a transmission speed of 100 Gbps or slower. However, the emergence of 6G will require higher rates of more than 400 Gbps, so we expect higher demands for PCB signal acceleration technology in the future.

ISU PETASYS is strengthening its business portfolio to enlarge the new high-tech PCB market and putting its utmost effort in significantly raising sales of new businesses. We are growing our product portfolio based on our key new business areas, such as the semiconductor testing PCB and RF PCB for base stations. We also focus on developing core technologies and thus create high outcomes on high aspect ratio technology, fine pitch (mm), and stubless via.

Core Technological Developments

Standard	Advanced	R&D
Max. Layer Counts		
48	80	100
Max. Board Thickness(mm)		
4.8	6.3	8.0
min. Drilled Via Size(mm)		
0.150	0.125	0.100
Aspect Ratio		
25.3	30.4	38.0
Laser Drilled Micro_vias(mm)		
0.125	0.1	0.75
Back Drill		
DHS+6mil	DHS+4mil	DHS+3mil
Back Drill Depth Tolerance(mm)		
±0.125	±0.1	±0.075

Significant Changes of 5G Base Station Equipment

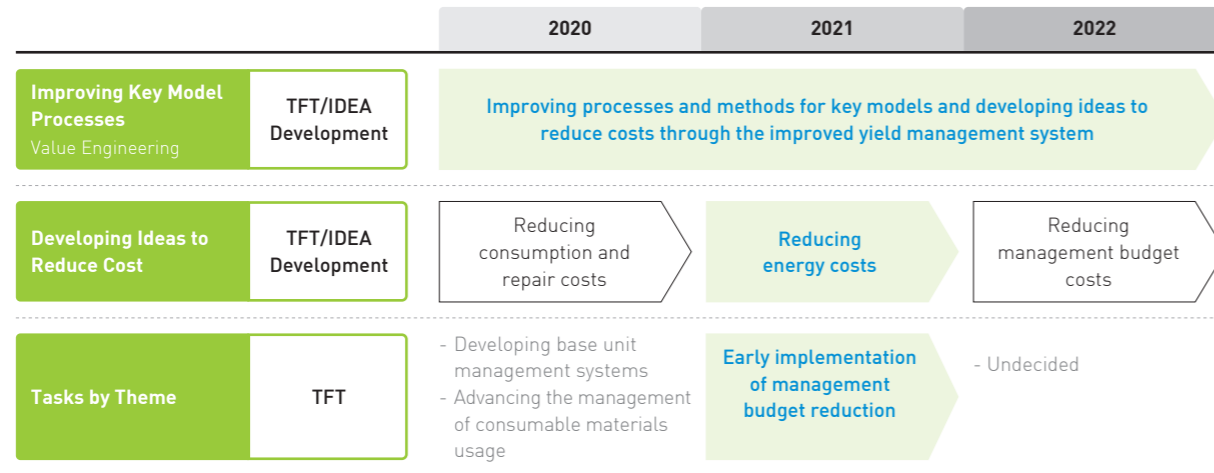
As dispersed equipment merged, 5G base station equipment has primarily changed, advancing and enlarging PCB functions. There are increasing demands to reduce heat or overall equipment size required during the base station equipment integration.

Accordingly, ISU PETASYS maintains close relationships with major wireless equipment companies at home and abroad and continues with new 5G technological development and market expansion.

1.2 Strengthening Plant Competitiveness

Cost Innovation

ISU PETASYS focuses on securing manufacturing competitiveness of plants through cost innovation activities.



Our 2021 CI project is aimed at reducing KRW 3 billion due to uncertain and fluctuating business conditions, and we strive to create tangible performance results company-wide based on value engineering (VE) activities and measures to reduce each account's prime costs.

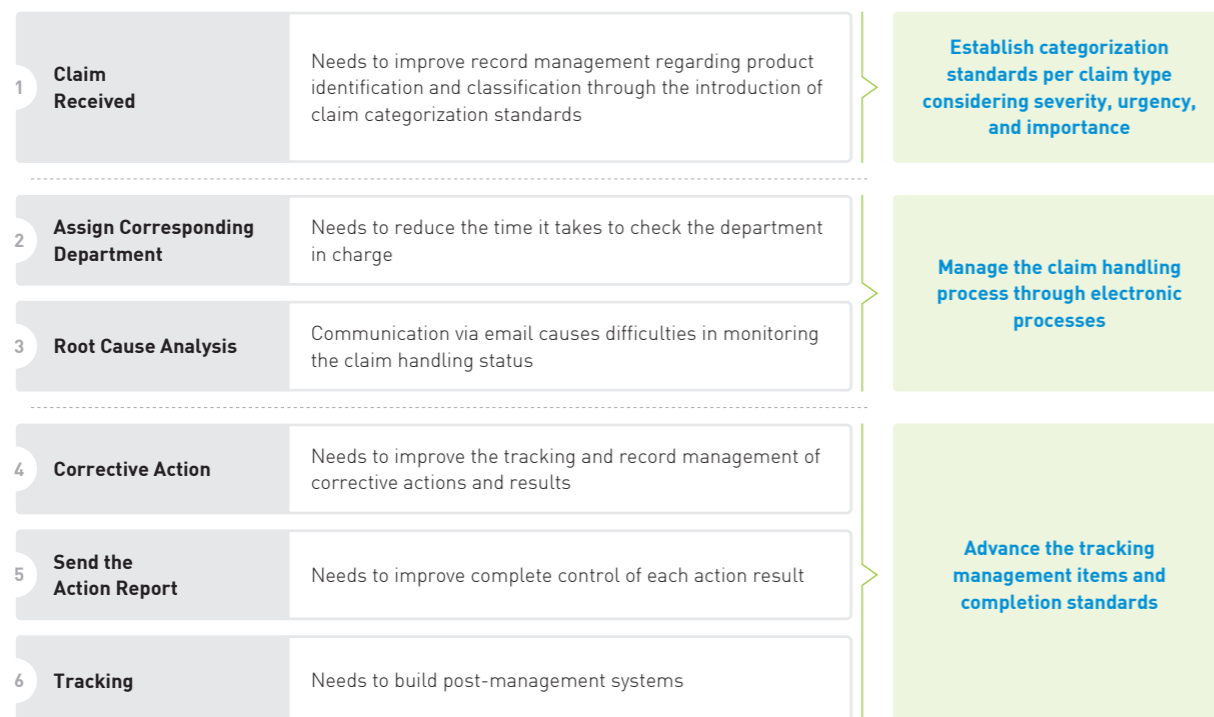
1.3 Strengthening Customer Satisfaction

Improvement Activities for Customer Claim Handling Process

To uplift customer satisfaction, ISU PETASYS continuously improves its customer claim handling process and operates the tracking process for the enhancement of

the post-management system and the person in charge's roles and responsibilities. Our claim handling process consists of receiving claims, assigning the corresponding department, root cause analysis, corrective actions, and sending the action report. By establishing claim categorization standards and improving the electronic processes, we build a company-wide claim handling process to enable quick response to customers' needs and requirements.

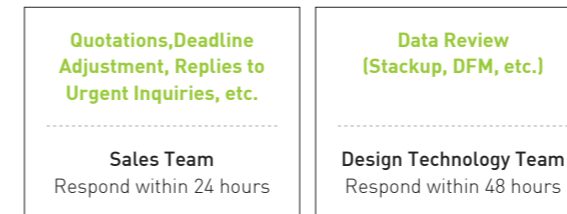
Our Claim Handling Process



Listening and Quickly Responding to Clients' Opinions

ISU PETASYS choose 100% make-to-order (MTO) because every client has different demands and each application's PCB have different structures. So, it is important to listen customer's opinions and quickly respond various demands. We make regular visits to the clients to listen carefully to their various requirements and quickly respond to their demands received through the offices in Korea, the U.S., China, and Asia. We own a system that enables prompt response to clients' technical support requests or issues.

Our Quick Response System



Customer Complaint Management Program

ISU PETASYS systematically manages its customer complaint information system to respond customer's complaints actively and constantly make improvement items to reflect them on management activities. Recent five years show that our on time settlement rate of customer complaints is 100% and ISU do our best to enhance customer's satisfaction.

Our Customer Complaint Management Process



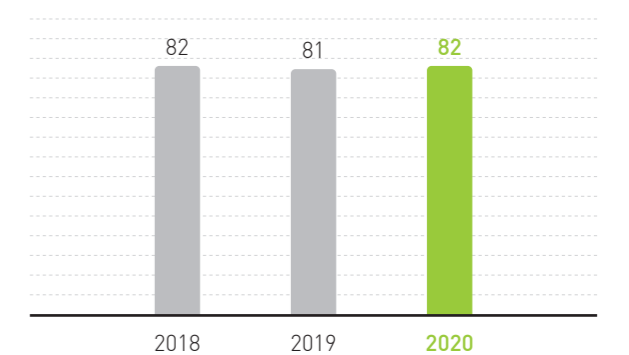
Customer Complaint Management

Classification	2018	2019	2020
On time settlement rate of customer complaints	100%	100%	100%
Audit findings on quality system	0	0	0

Customer Satisfaction Survey

ISU PETASYS regularly conducts customer satisfaction surveys to listen to the voices of the customers. The survey primarily comprises on-time delivery, service and flexibility, technical support, quality, and cost, and we included sustainable management evaluation items for certain major clients. In 2020, the average customer satisfaction was 82 points. We plan to perform various activities to maintain customer satisfaction.

Average Customer Satisfaction



Customer Information Protection

With an aim to ensure customer and technology information protection, all ISU PETASYS employees aggressively take the lead in protecting information assets. Every employee protects customer information according to security guidelines. Customers' critical information is collected only upon their approval and disclosed when legally required. In addition, we instantly warn the customer about information leakage, if any, and take appropriate measures according to our response procedures to minimize security incidents.



Human Rights and Labor



MANAGEMENT APPROACH


Context

The world perceives the importance of human rights more than ever, and the significance of human rights and labor increases day by day. Human rights have always been crucial in global evaluation indicators for sustainability, as indicated in RBA, ESG indexes, EcoVadis, and Dow Jones Sustainability Indices (DJSI). We see cross-national demands of improved protection of human rights, such as prohibiting forced labor, protecting the weak, creating a better and safer workplace, humanitarian treatment, anti-discrimination, and freedom of association.


Our Approach

Human labor is responsible for creating every superior technology, and satisfying labor conditions and guarantee of human rights are critical in maintaining a company's competitiveness. Accordingly, ISU PETASYS devised policies to guarantee human rights and ensure that all corporate activities put these policies into practice. Furthermore, we help develop employees' talents and skills to respect their efforts in human rights and labor and thus improve their quality of life.

Our Performance

 **53.46** hours
Annual Education Hours per Employee

 **KRW 172,000**
Annual Education and Training Expenses per Employee

 **2.0%**
Welfare Benefits Compared to Sales

2.1 Human Rights Policy and Promotion System

ISU PETASYS strictly complies with international standards and principles regarding human rights and labor. We adopted the UN's Guiding Principles on Business and Human Rights (UNGPR) based on our perception of corporate responsibilities to guarantee human rights. Based on this, we reflect global human rights standards and principles in our CSR policies and operations, aiming to

2.2 Respect for Employees' Human Rights

Enculturation of Respect for Human Rights

ISU PETASYS raises employees' awareness of human rights and engages in the enculturation of respect for human rights by engaging in various human rights management activities. In 2020, all employees were educated on human rights, including the prevention of sexual harassment in the workplace. We also have a pledge for respect for human rights so that all employees comply with the Employee Code of Ethics and Respect for Human Rights Guidelines.

Grievance Handling

ISU PETASYS operates an online reporting system on its website (<http://www.petasys.com/kor/csr/cyber.jsp>) to handle the grievances of employees and external stakeholders, including customers and partners. All employees can candidly let out their difficulties through the online reporting system regarding labor

advance our human rights management to the top level. We proactively identify factors that may negatively influence human rights during business operation and operate human rights and labor guidelines, including the fundamental guidelines. Based on the value of respect for human beings, our human rights and labor guidelines stipulate regulations on forced and child labor, anti-discrimination, and work hours, wages, and benefits. Our Human Resources & Labor team is dedicated to guaranteeing human rights and propelling a broad range of human rights policies.

conditions, human resource management, gender issues, sexual harassment at work, and other personal affairs. Our Grievance Handling Committee handles all submitted cases fairly according to the grievance handling regulations.

Apart from the reporting system, we also operate diverse grievance handling channels, including the in-house application, telephone, fax, face-to-face counseling, and written reports, to help all employees overcome their problems.

Diversity and Anti-discrimination

ISU PETASYS regulates anti-discrimination in its human rights and labor guidelines in order to respect diversity and prohibit discrimination at work.

The Employee Code of Ethics and Respect for Human Rights Guidelines specifies the prohibition of discrimination according to gender, age, position, political position, or religion. All employees strictly complied with the guideline in 2020, and no signs of discrimination were found.

Employee Code of Ethics and Respect for Human Rights Guidelines

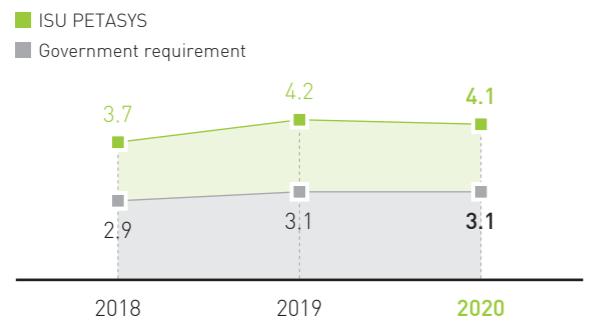
I, as an employee of ISU PETASYS, shall observe the following guidelines.

1. I shall maintain a healthy private life and not engage in any act that defames the company.
2. I shall not misuse my authority, personally use company property, or execute expenses in a non-transparent manner.
3. I shall not receive money, treatment, or accommodations from stakeholders, including colleagues, customers, partners, or accounts.
4. I shall not disclose trade secrets learned through business and comply with the security guidelines.
5. I shall not discriminate against colleagues on gender, age, position, employment status, political position, or religion.
6. I shall respect my colleagues and not exercise any physical, sexual, or verbal violence.
7. Upon witnessing any acts mentioned above, I shall immediately stop the person or the act and notify the relevant department.

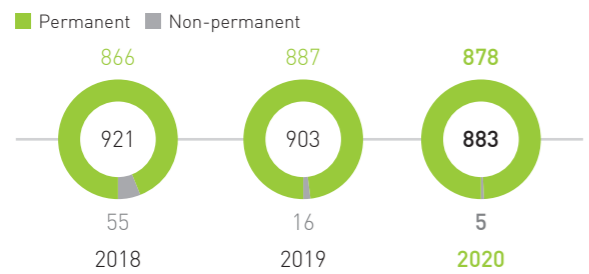
2.3 Fair Opportunity and Remuneration

ISU PETASYS adopts a transparent and fair employment policy, where it systematically guarantees the equal treatment of all employees for stable employment. We fundamentally eliminate all factors that may trigger discrimination from the recruitment stage by adjusting the interviewers' gender ratio and educating interviewers prior to the interview. In addition, we provide an equivalent amount of wages and welfare benefits regardless of gender to ensure a fair remuneration system. This also applies to promotion, as our transparent performance

Employment Rate of Persons with Disabilities Unit: %



Number of Employees by Contract Type by Gender

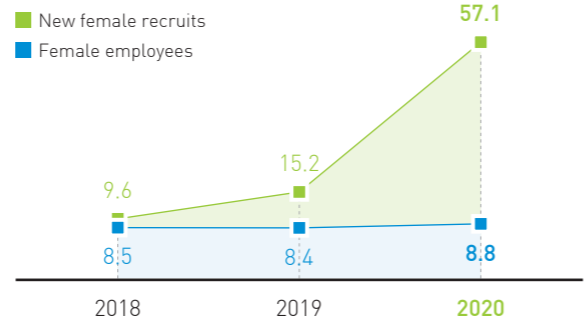


2.4 Expansion of Win-win Labor-management Culture

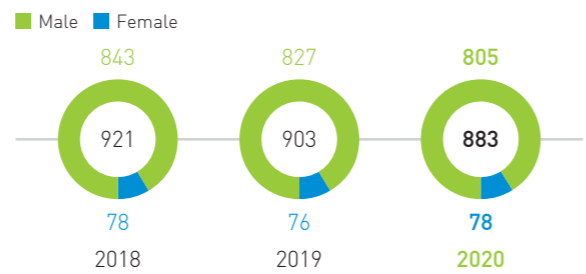
ISU PETASYS maintains cooperative labor-management relations, and there have been no strikes since the foundation. We strive to build a corporate culture of coexistence by promoting harmony between the employees and the management, guarantee employees' freedom of association, and facilitate communication with society. Win-win labor-management culture is our most prominent corporate culture, where the employees and the management frequently exchange opinions through the employees' collective bargaining, the Labor-Management Committee, the Labor-Management Safety and Health Committee, and the Labor-Management HR

evaluation system eliminates gender discrimination and thus provides equal opportunities and remuneration. In 2020, we hired 32 persons with disabilities, including six severely handicapped persons, reducing the prejudice that these employees do not decrease the productivity of high-tech electronics. We are taking the lead in the development and assignment of duties that match the skills of persons with disabilities. With our efforts highly acknowledged, we were selected as a Company with Excellent Gender Equality Culture and a company excellent in employing persons with disabilities by the Ministry of Employment and Labor (MOEL). In 2017, we were honored as a employment-friendly company by the Daegu Metropolitan Government.

Employment Rate of Female Employees Unit: %

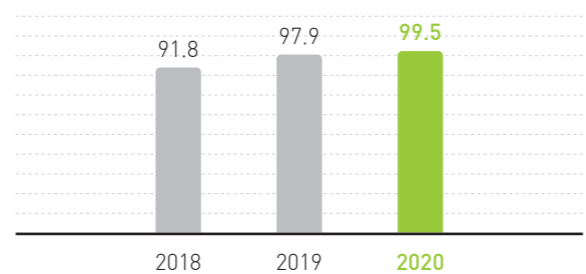


Percentage of Union Membership Unit: %



Subcommittee. We make sure to reflect the opinions for further enhancement of our workplace and labor conditions. Moreover, the labor-management jointly declared social responsibility practice so as to expand the win-win culture of human-centric management, local economy vitalization, and expansion of local hiring throughout the society.

Percentage of Union Membership Unit: %



2.5 Talent Development and Improvements in the Quality of Life

ISU PETASYS acknowledges the necessity of hiring and developing talents to fulfill sustainable growth. Our investments mainly focus on talent development, and we put the utmost effort into enhancing employees' quality of life.

Talent Development

ISU PETASYS strives to provide high-quality education to its employees. Our systematic operations of educational

Educational Programs for Employees*

Program	Details	
Competency Enhancement for Each Position	General education	Developing the ownership mindset, basic improvements and activating the organization, prevention of sexual harassment, anti-corruption, and quality education
	Executives' coaching on building leadership for team leader candidates and middle managers	Making changes and improving corporate competitiveness through executives' coaching
	OJT for new recruits	Beginner's course and My Board course, and enhancing job competency for beginners
Raising Job Expertise	Cyber, reading, and communication	Work process education
	Course for external employees	Course for job expertise enhancement
	Course for union leaders	Course for labor-management relationship specialists and labor union representatives
Enhancing Global Skills	In-house language course	Languages courses on English and Chinese
	Special language course	Special language course for expatriates and employees dispatched to overseas

Improvements in the Quality of Life

More companies focus on the significance of workers' quality of life in line with the government's 52-hour work-week policy and the cultural spread of work-life balance. ISU PETASYS is not an exception, verified by its execution of the flextime system since 2016 to improve employees' quality of life. Since 2018, we have been operating the designated work hour system, in which conferences, phone calls, and reports are strictly banned during the designated hours, thus reducing employees' working hours. We prohibit get-togethers on the company's Family Day (every Wednesday) to reduce unnecessary overtime work and encourage employees to spend more time with their families. After regular working hours, air

programs help develop each and every employee's skills and talents, such as essential qualifications, knowledge, technology, and functions required for their assigned tasks, to enhance our business competitiveness. We provide customized education per employees' position and role and offer year-round language courses to enhance their global competencies.

Employee Education Hours Unit: hours

Classification	2018	2019	2020
Education Hours per Employee	96.7	81.6	53.5

* Employees' education hours were reduced in 2020 due to the impact of COVID-19

conditioners and heaters are shut down to urge workers to go home. In 2018, we adopted new systems to improve employees' quality of life, including the alternative holiday system (granting alternative holidays if working on weekends or a holiday), the half-day-off system that ensures effective use of leaves, and the automatic parental leave system. We also take the lead in institutional support in all fields of life through our welfare system that provides a wide range of support to employees, such as financial support for children's educational expenses and the operation of lactation rooms within the company. The system ensures that employees enjoy more stable and affluent lifestyles.

Our Welfare Benefits

<p>Work-life Balance</p> <ul style="list-style-type: none"> Financial support for children's educational expenses Employees' dormitory Regular physical examination Group accident insurance Financial support for language learning fees Vouchers (for persons with disabilities, patriots, and veterans) 	<p>A Happy Workplace</p> <ul style="list-style-type: none"> Corporate cafeteria Support for expenditure for congratulations and condolences Holidays for congratulations and condolences Provision of clothing Lactation rooms Medical, changing, and visiting rooms Rest areas and shower booths 	<p>Leisure & Activity</p> <ul style="list-style-type: none"> Condominium for employees Operation and support for clubs in the workplace Support for group cultural activities (e.g., movie tickets) Group/company-wide sports festival Vouchers 	<p>Motivation</p> <ul style="list-style-type: none"> Rewards and vacations for long-term employees Support for national and international training courses for excellent employees Financial support for graduate school courses through evaluation Incentives for production encouragement Vouchers for outstanding employees who took a training course
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Environment, Safety, and Health ESH

MANAGEMENT APPROACH

Context

Companies nowadays are committed to reducing their impact on the environment. The international community stipulates regulations in various fields, such as mitigating climate change, stopping air and water pollution, and saving energy, in efforts to protect the environment. Society expects companies to more strictly abide by safety and health management guidelines in management activities.


Our Approach

As part of our efforts to reduce environmental impacts, ISU PETASYS selects key tasks each year based on its environment, safety, and health (ESH) promotion system and makes improvements accordingly. We endeavor to avoid continuous impact on the environment caused by our production activities. We conduct an environmental impact assessment and pollution management and expand our safety and health activities to our partners.

Our Performance

 **Zero**
Safety-related
Accidents

 **0%**
Industrial Accident
Rate




 **89%**
Waste Recycling
Rate

3.1 Our ESH Promotion System

ISU PETASYS established an integrated ESH management system to enable systematic and overall manage-

ment of business activities that give impacts on the environment and to create a safe workplace. We decide on the key ESH tasks in compliance with the ESH-related laws and regulations. Our ESH team acts as the control tower that propels major policies company-wide with each department's ESH manager.

Our ESH Promotion System

	Selection of Key ESH Tasks	Establishment of Major Policies	Key Performance Indicators (KPIs)	
Environment 	Zero Environmental Pollution	Execute an environmental impact assessment	Execution rate	
		Improve severe environmental impacts	Achievement rate	
		Conduct compulsory education on hazardous chemical substances	Completion rate	
	Use of Sustainable Resources	Reduce greenhouse gas emissions Reduce energy consumption	Emissions	
Safety and Health 	Zero Safety-related Accidents	Conduct risk assessment	Execution rate	
		Improve severe risks	Improvement rate	
		Near-miss accident discovery activities	Number of activities carried out	
			Manage safety test targets	Execution rate
	Activities to Reduce Disease Rate	Carry out in-house health improvement programs · Launch smoking cessation campaigns · Conduct work stress test	Execution status	
		Operate a team management system in reducing disease rates	Execution status	
Conduct Safety and Health Education	Education for supervisors (new/returning)	Completion rate		
	Conduct regular safety and health education (office workers, managerial positions: 2 hours/month)	Number of sessions held		
	Education on the ESH management system	Execution status		
Safety and Health Support for Partners	Execute collaborative programs	Execution results		
Common 	Raise Employees' Awareness of Environmental Safety	Conduct emergency drill (four times/year)	Number of drills	
		Launch campaigns to abide by major safety regulations (12 times/year)	Number of campaigns held	
		Organize an ERT and hold expertise training course	Execution status	
Raise the ESG Management System Effectiveness	Maintain certifications related to safety and health management systems · Environment: ISO 14001 · Safety and health: ISO 45001, KOSHA 18001	Status of maintenance		

Minimizing Environmental, Safety, and Health Impacts

3.2 Environmental Management System

Enhancement of Environmental Impact Assessment

ISU PETASYS conducts an environmental impact assessment to grasp factors affecting the environment in the overall product and service production process, from obtaining raw materials to disposal. The environmental impact assessment is conducted

* Environmental impact assessment results: Grade A (no environmental impact at all), grade B (very small environmental impact), grade C (low environmental impact), grade D (potentially severe environmental impact), grade E (severe environmental impact), grade F (very severe environmental impact)

upon the occurrence of matters such as installation or expansion of facilities, product development, stakeholder request, occurrence of severe environmental impact, or changes to chemicals used in the production process. The assessment results* are graded from A to F. Environmental impact items with grade D or lower are considered severe, which are then reflected when setting environmental goals and objectives for intensive management.

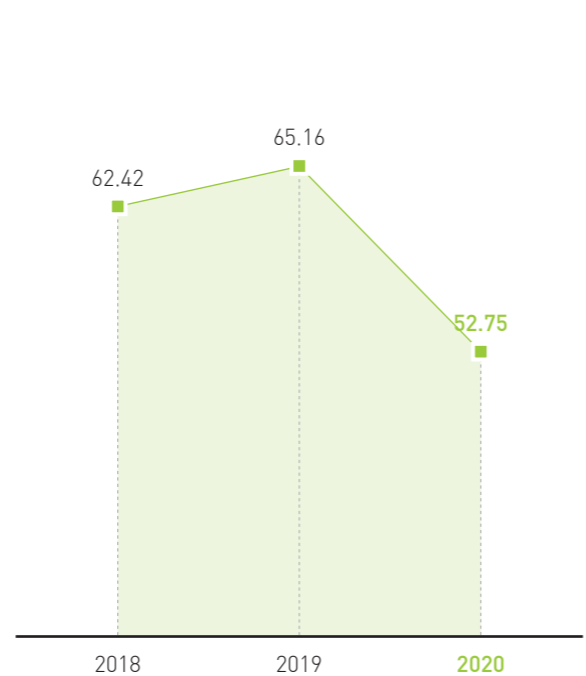
3.3 Severe Environmental Impact Improvement

ISU PETASYS improves severe environmental impacts by managing pollutants that may be discharged in the production process, such as hazardous chemicals, air pollutants, water pollutants, and waste.

Hazardous Chemicals Management

ISU PETASYS identifies and takes complete care of all chemical substances in chemical products used throughout the production process. We review the relevant laws and regulations before using new chemicals and evaluate their hazardousness. We also figure out in advance issues that may arise in the disposal stage. Facilities handling hazardous chemicals conduct daily, weekly, and monthly inspections, provide the material safety data sheet (MSDS) on-site, and are equipped with disaster prevention equipment and protective kits to prepare against chemical accidents. Moreover, they regularly hold hazardous chemical safety education for workers involved and do their utmost to prevent hazardous chemicals from triggering accidents.

Amount of Hazardous Chemicals Used Unit: kg/m²



* Base unit: Total annual usage rate (kg) / Production amount (m²)

Air Quality Management

ISU PETASYS conducts strict management and makes improvements to reduce air pollutant emissions in the production process. As our contribution to reducing air pollution, we periodically replace the absorbents used at air pollution control facilities.

Air Pollutant Emissions

Category	2018		2019		2020	
	Total Emissions (kg)	Intensity (g/m ²)	Total Emissions (kg)	Intensity (g/m ²)	Total Emissions (kg)	Intensity (g/m ²)
Sulfur Oxide	3,446.59	22.75	5,403.63	42.69	1,278.31	7.44
Nitrogen Oxide	2,979.18	19.66	1,824.76	14.42	5,758.20	33.52
Dust	1,585.71	10.46	1,281.97	10.13	714.94	4.16
Ammonia	6,482.07	42.78	9,810.67	77.51	5,054.43	29.42

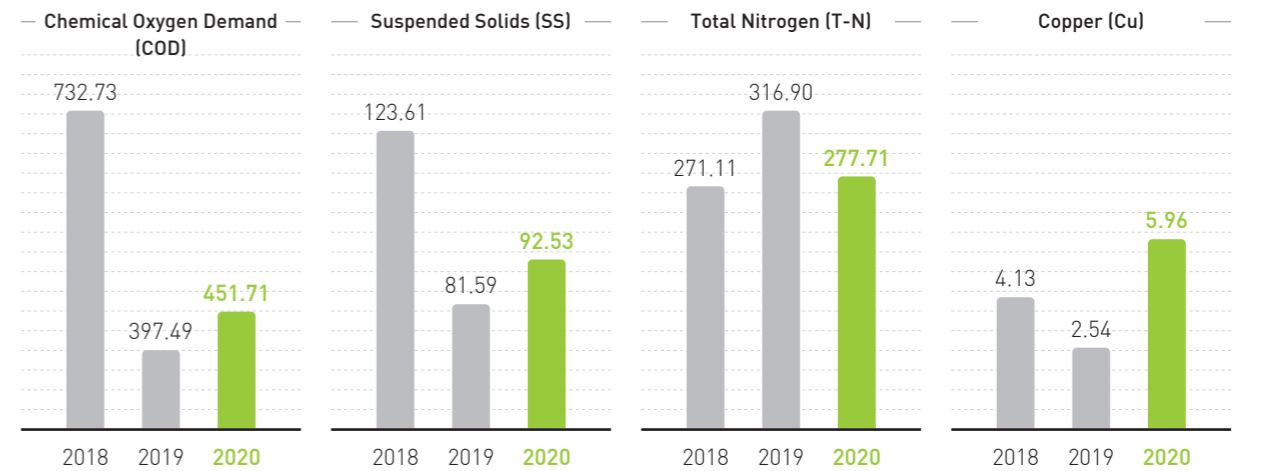
* The cause must be indicated for more than a 30% increase in emissions

Water Quality Management

ISU PETASYS operates systems controlling water pollution and managing wastewater inevitably generated in the production process. We categorize wastewater generated in the production facilities according to each process characteristic and treat the categorized waste-

water in the respective facilities. The treated wastewater is brought to wastewater treatment facilities for second treatment before discharge. We separately collect and consign high-concentrated wastewater that cannot be treated internally and apply stricter discharge allowance criteria than the legal requirements.

Water Pollutant Emissions



* Base unit: Water pollutant emissions (kg) / Production amount (m²)

Waste Management

ISU PETASYS sets per-process reduction goals and manages the entire waste handling process—from generation to storage to treatment—as part of its efforts to reduce waste generated during production activities. To minimize the environmental impact of the consigned

waste, we periodically evaluate the consigned companies for waste treatment based on the criteria of equipment, technology, consignment ability, and legal matters. We entrust waste treatment tasks only to companies that have passed the evaluation criteria.

Waste Discharges by Treatment Method

Classification	Amount of Waste Generated Unit: tons/year					
	2018		2019		2020	
	General Waste	Designated Waste	General Waste	Designated Waste	General Waste	Designated Waste
Incineration	-	297.21	-	442.66	-	472.43
Landfill	-	217.39	-	-	-	-
Neutralization	-	1,010.73	-	487.39	-	1,428.90
Evaporation and Concentration	-	11.64	-	445.24	-	-
Recycling	5,348.42	3,343.25	4,931.99	2,816.53	5,157.64	3,245.16
Subtotal	5,348.42	4,880.22	4,931.99	4,191.82	5,157.64	5,146.49
Total	10,228.64		9,123.81		10,304.13	



3.4 Tackling Climate Change

Greenhouse Gas Emissions and Energy Management

ISU PETASYS engages in activities that tackle climate change, including the calculation and management of greenhouse gas emissions and the establishment of greenhouse gas inventories, in accordance with the national greenhouse gas management system (NGMS). Having recognized that reducing greenhouse gas emissions and energy consumption mitigate climate change significantly, we aggressively carry out activities that help

reduce greenhouse gas emissions and save energy in each process. We are also replacing aged equipment with high-efficiency ones. Although our overall greenhouse gas emissions are on the decrease, the usage rate of tetrafluoromethane (CF4) gas utilized in processes varies according to the production amount. Furthermore, our company-wide attempts to save energy, draw energy-saving ideas in the CI project, and adopt highly efficient equipment are contributing to reducing energy consumption, such as electricity and liquefied natural gas (LNG). We plan to add gas control facilities in 2021 to suppress CF4 gas emissions, and the facilities are expected to reduce greenhouse gas emissions significantly.

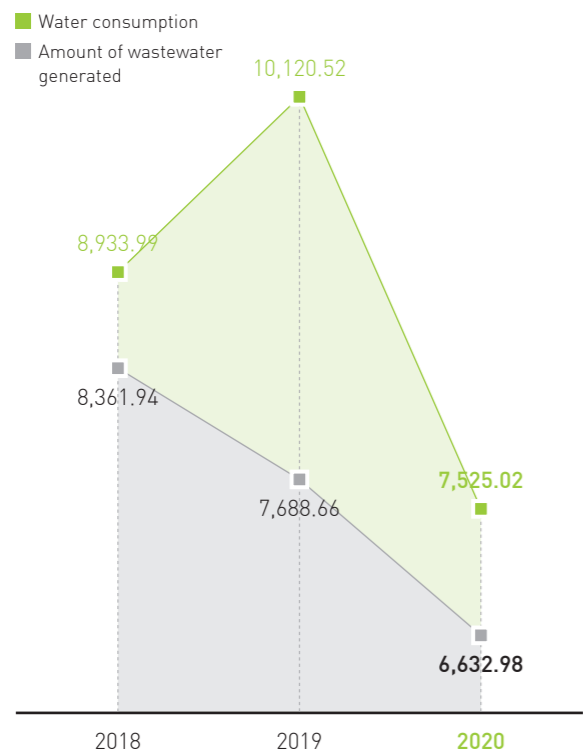
Status of Greenhouse Gas Emissions and Energy Consumption

Classification		2018	2019	2020
Greenhouse Gas Emissions	Direct (Scope 1) emissions	23,840	17,415	23,778
	Indirect (Scope 2) emissions	30,690	29,327	28,788
	Total	54,530	46,742	52,566
Energy Consumption	Direct (Scope 1) consumption	142	119	120
	Indirect (Scope 2) consumption	632	603	592
	Total	774	722	712

Reducing Water Consumption

ISU PETASYS minimizes water consumption during production to cope with climate change. We set annual goals to reduce water consumption in each process as part of our contributions to saving water.

Water Consumption and Amount of Wastewater Generated



Recycling and Reusing

ISU PETASYS makes company-wide efforts to recycle waste generated in the production process and reuse raw and subsidiary materials to enable sustainable resource usage.

For waste recycling, we categorize the internally generated waste, including discarded inferior products, into 47 types and recycle 45 of the recycled waste. We recycled 89% of the waste generated in 2020. We also operate facilities that recover precious metals, such as gold (Au), silver (Ag), copper (Cu), contained in raw and subsidiary materials, and continuously search for ideas to reduce and reuse raw and subsidiary materials and put them into action.

With our efforts highly acknowledged, we won an award from the Minister of Environment in 2017 in recognition of our contributions to forming a resource circulation society through waste reduction in workplaces and of our excellent eco-friendly management.

89% Waste Recycling Rate in 2020

3.5 Safety and Health System

The Board of Directors' Approval

Pursuant to the Occupational Safety and Health Act, the company's CEO shall establish safety and health plans each year and report them to the Board of Directors for approval. Following the approval from the Board of Directors for our 2021 safety and health plan, ISU PETASYS makes continuous improvements to build a safe and healthy workplace.

Contents of the 2021 Safety and Health Plan

1. Management policies on safety and health
2. Composition and roles of the safety and health management organization
3. Safety and health budget and facility status
4. Safety and health performance in the previous year and action plans for the next year

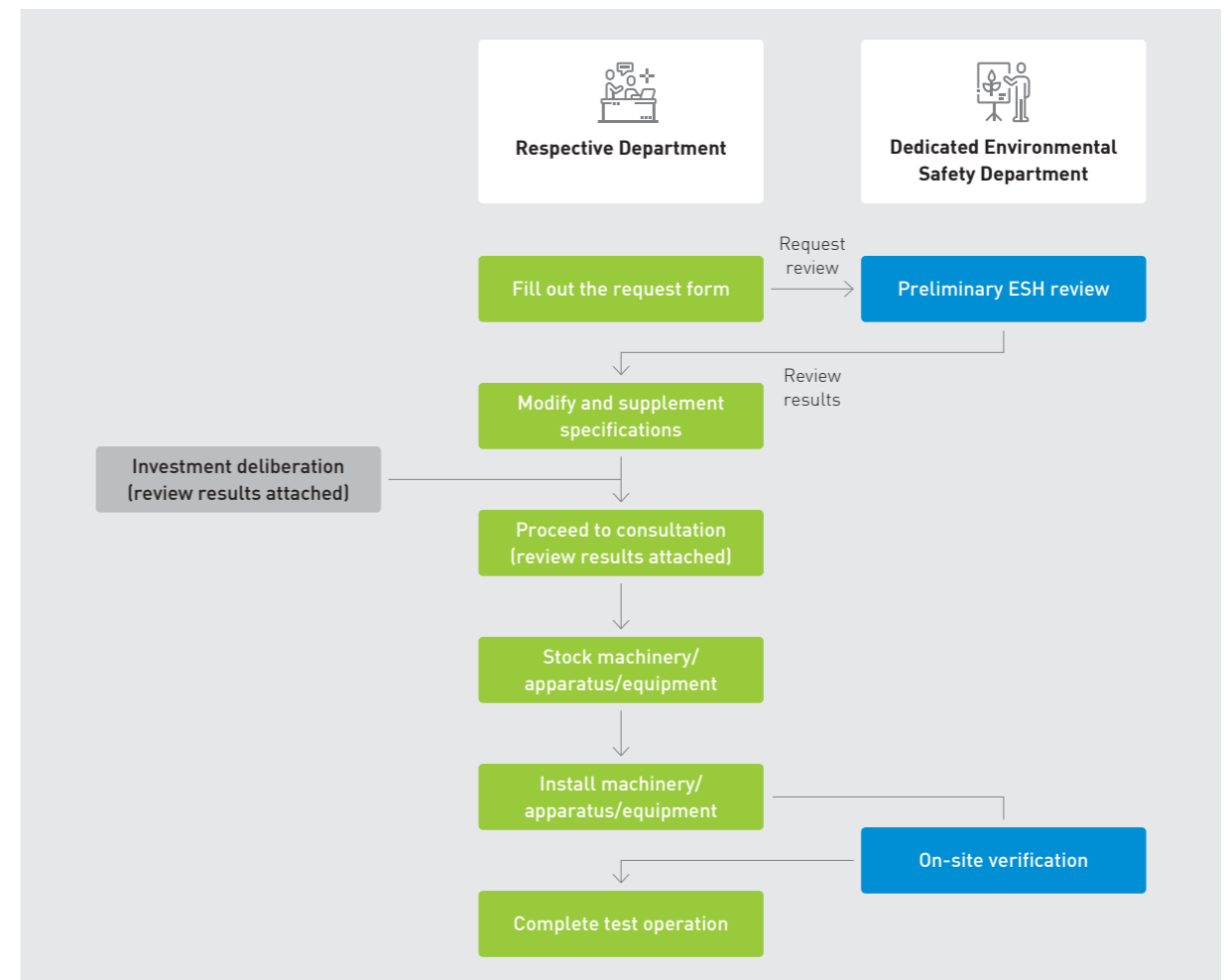
Our Safety and Health Management System

With an aim to establish a safe and healthy workplace, ISU PETASYS operates and maintains a safety and health management system through its KOSHA 18001 and ISO 45001 certifications. We renewed KOSHA 18001 in July 2019 and converted the OHSAS 18001 certification to ISO 45001 in October 2019.

Preliminary ESH Assessment

ISU PETASYS conducts on-site examinations and inspects ESH risks before investment deliberation and consultation in terms of building construction and facility installation/expansion, through which safety is ensured and accidents can be prevented. Our dedicated environmental safety department conducts a preliminary ESH assessment, in which the criteria are categorized into safety, health, and fire protection.

Preliminary ESH Assessment Process



3.6 Safety and Health Programs

Safety and Health Education

ISU PETASYS educates its employees on safety and health to achieve a zero-accident workplace and raise employees' awareness of safety and health. The education takes place monthly even there are new hires or changes in work details. We also operate educational programs on process safety job education, special safety and health education, education for supervisors, and more. Educational and training evaluations take place to make sure that every employee is fully aware of the importance of safety and health.

Our Safety Core Rules Campaign



Safety campaign for A01 and inner layer processes

Safety-related Accidents

Unit: cases

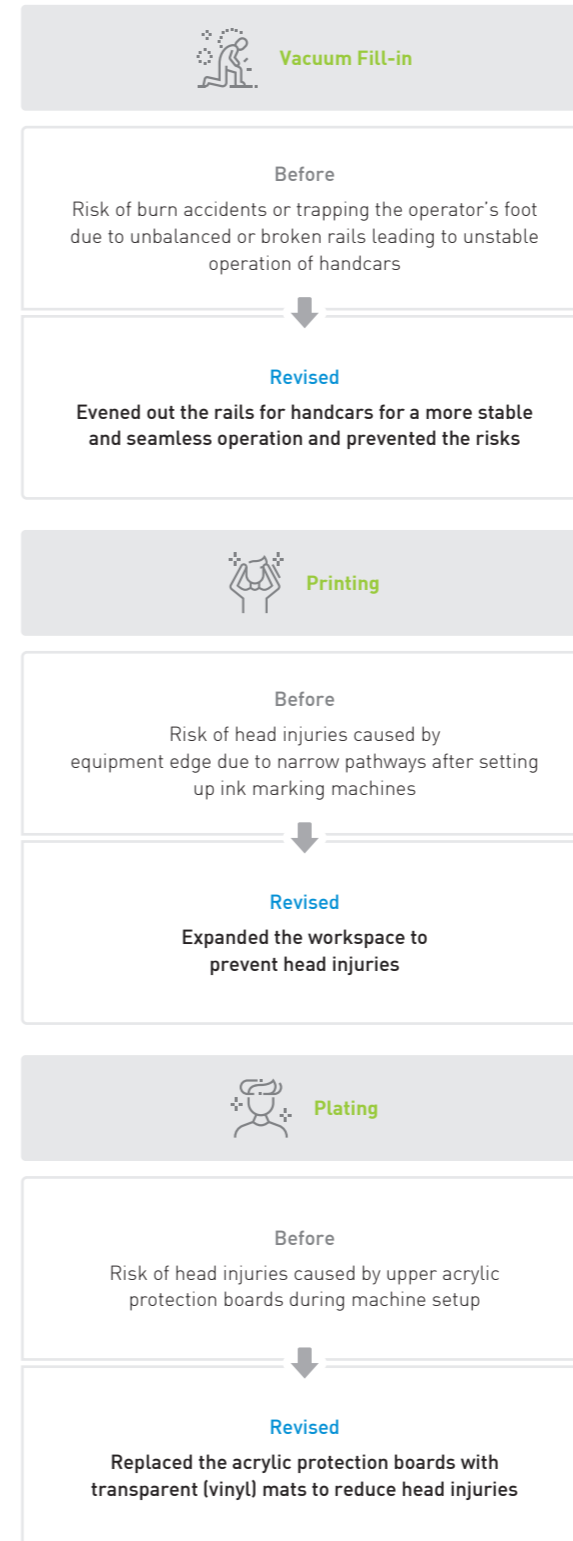
Classification	2018	2019	2020
Number of Safety-related Accidents (Accidental disasters)	0	0	0

0% Safety-related Accidents for Three Consecutive Years (Accidental disasters)

Near-miss Accident Discovery Activities

Near-miss accidents imply risky situations triggered by the operator's carelessness or facility failure on sites that could have developed into an accident, but fortunately ended in a close call. Fully aware that near-miss accidents are a hint of industrial accidents, ISU PETASYS engages in activities to discover and prevent near-miss accidents in the production process stage.

Near-miss Accident Discovery Cases



Emergency Preparations and Responses

ISU PETASYS has established emergency scenarios to minimize damages against diverse accidents, including hazardous chemical leakage, fire explosions, and natural disasters. We regularly hold emergency drills (on fire, chemical leakages, closed-space rescue, etc.) four times a year and check emergency preparedness kits once a month, thus verifying the effectiveness of our emergency response system.

Moreover, our self-defense firefighting team is headed by the CEO for thorough preparation against potential fire accidents.

A Healthy Workplace for All

ISU PETASYS operates a health and work environment improvement program to ensure that all employees are safe from occupational diseases. We measure the work environment twice a year to check workers' exposure to harmful elements such as chemicals, metals, gases, and noise. Measurement results in 2020 revealed that no harmful element exceeded the exposure criteria.

ISU PETASYS established a musculoskeletal disorder prevention system to educate employees on relevant disorders and offers medical treatments to prevent occupational diseases arising from simple repetitive work. Apart from periodical physical examinations, we also offer regular special physical examination to employees exposed to harmful elements or assigned with night duties. All patients are treated first-hand through medical rooms, and emergency first-aid kits are placed in emergency or accident-prone areas.



Sustainable Supply Chains



MANAGEMENT APPROACH

Context

Supply chain management of a company covers various areas, from quality control to unfair trades, human rights, environment, and ethics. Economic growth leads to expanded supply chains and higher risks; building responsible supply chains for sustainable development has become a necessity, not an option. Accordingly, shared growth with partners act as an essential element to foster companies' growth.

Our Approach

ISU PETASYS provides a wide variety of educational and support activities for responsible supply chain management and actively and continuously interacts with partners through various communication channels. We applied sustainability management in our supply chain management system to comply with global initiatives that concern fair operation, surveillance of legal compliance, anti-corruption, and raw material management.

Our Performance

874 persons

Who Took the Anti-corruption Education
Including partners

100%

Conflict Minerals Due Diligence Execution Rate of Suppliers

Zero

Violations of Anti-corruption Regulations

4.1 Shared Growth

Areas of Focus

ISU PETASYS propels various activities to facilitate shared growth with suppliers according to the values of joint-interest group, integrity management, goal accomplishment, and mutual innovation as suggested in the Code of Ethics. For successful implementation of the activities, we work on strengthening our CSR through various communication channels.

Education and Consulting

ISU PETASYS actively supports education and consulting services to enhance suppliers' competencies. Suppliers are provided with human resource and labor-related educational programs concerning labor agreements and employment regulations, and financial consulting. We conduct education on basic human resource management guidelines to prevent the infringement of human rights and labor rights in suppliers' workplaces. We also conduct risk assessment education each year and safety and health education each month to support suppliers in maintaining a safe workplace.

4.2 Fair Operation

Reinforcement of Fair Operation

ISU PETASYS reinforces fair operation to propel shared growth with suppliers. While giving every supplier fair opportunities to participate, we operate a supplier evaluation system centering on the deadline, quality, financial stability, degree of cooperation, and compliance with the RBA to reinforce suppliers' competencies. They are evaluated in four grades (A, B, C, and D), where excellent suppliers are granted incentives and provided the opportunity to improve their shortcomings. Moreover, our educational programs on fair trade and anti-corruption target employees and suppliers to spread the culture of fair competition and anti-corruption internally and externally.

874 employees

ISU PETASYS and Suppliers Who Took the Fair Trade and Anti-corruption Education in 2020



4.3 Anti-corruption

Anti-corruption Policy and Management

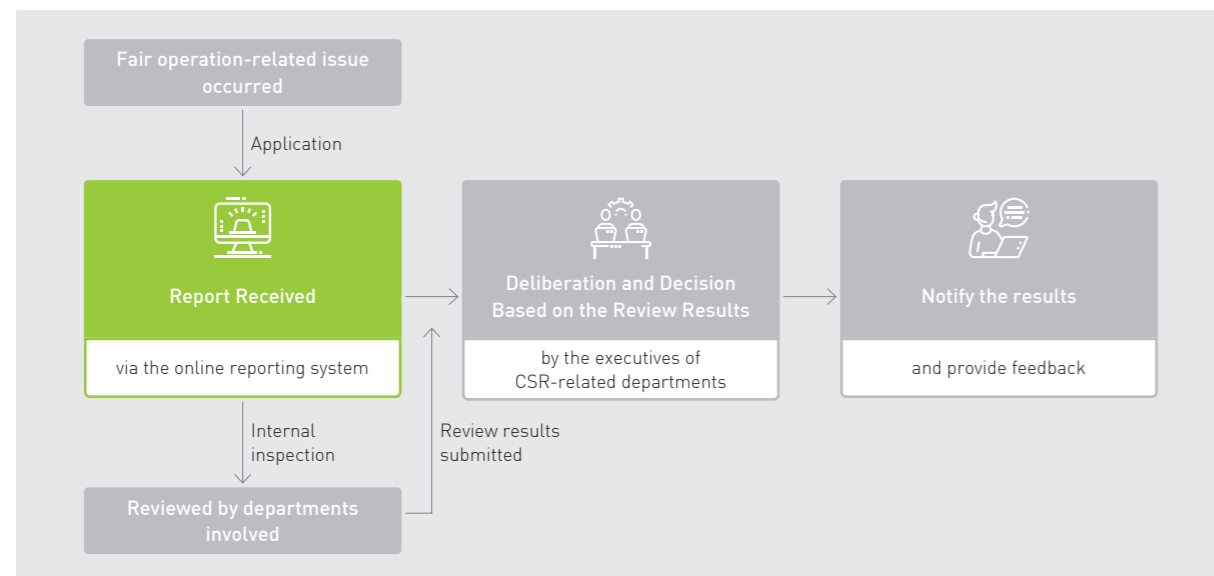
According to the Code of Conduct, anti-corruption, and anti-graft principles, ISU PETASYS prohibits any form of misconduct, including bribery, corruption, coercion, and embezzlement, under any circumstance. All employees are prohibited from providing or receiving bribery or payments equivalent to such bribes to achieve unfair profits. In particular, the workers involved may be disciplined even if it is not verified whether the money was given in exchange for a reward. We also operate an internal audit and control system in order to observe anti-corruption laws and regulations in Korea and abroad. We achieved zero anti-corruption infringement cases in 2020.

Zero Anti-corruption Infringement Cases in 2020

Whistle-blower System

ISU PETASYS added the whistle-blower system to an online program to guarantee internal and external stakeholders' reports on anti-corruption infringement cases, conflict of interest, and other unfair management cases. Any stakeholder, including employees, customers, and partners, may post anonymous reports that are strictly confidential under internal CSR regulations. All submitted reports are granted serial numbers. Whenever a report is submitted, we take systematic measures through corresponding the whistle-blowing process. In 2020, there were zero cases submitted to the whistle-blower channel.

Whistle-blowing Process



4.4 CSR Management in Supply Chains

CSR Management Standards in Supply Chains

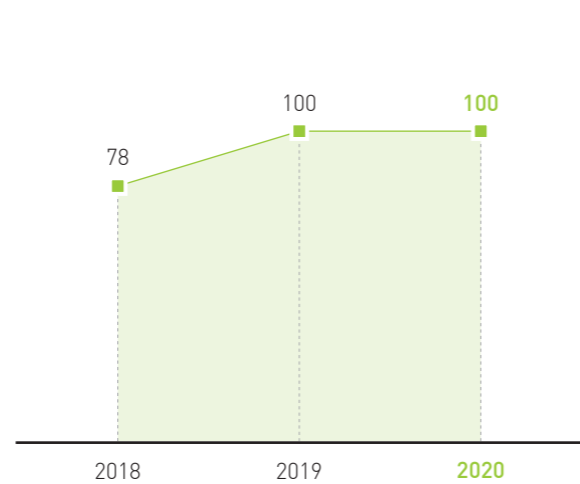
For a stable operation of supply chains, ISU PETASYS reflects CSR management criteria on its management standards for suppliers and partners. Accordingly, we are reducing potential risks in supply chains. We will continue our CSR management in supply chains so that all businesses can build a safe work environment and achieve eco-friendly and ethical business operation.

CSR Audit

Under the goal of managing social responsibility in the overall supply chain, ISU PETASYS executes CSR audit in four areas—human rights, ESH, fair operation, and product liability. Based on our CSR audit, we reduce potential risks in supply chains and thus strengthen sustainable management.

CSR Audit of Suppliers

Unit: %



4.5 Raw Materials Management

Responsible Procurement of Conflict Minerals

In line with the growth of society's awareness of responsible procurement of conflict minerals, the importance of managing conflict minerals is increasing day by day. Conflict minerals are natural resources extracted in a conflict zone. They are directly connected to armed conflicts and human rights abuses as the funds raised from conflict minerals flow into the armed forces of the region

where the minerals are extracted. Abuse of human rights includes child labor, forced labor, and violence against female workers. As a response, ISU PETASYS devised management policies for conflict minerals to exclude conflict minerals from the supply chain under any circumstance. In case a partner fails to provide sufficient information required to determine whether conflict minerals have been used in their materials, provided non-factual information, or fails to fulfill necessary measures to discover risks in the partner's supply chain, it is stipulated in our policies to end transactions with the said partner.

How We Manage Conflict Minerals

- We shall establish conflict mineral work process for legal compliance by applying the international standards regulating conflict minerals and actively participate in international efforts of prohibiting the use of conflict minerals led by the Electronic Industry Citizenship Coalition (EICC) and the Global e-Sustainability Initiative (GeSI).
- We shall identify the names and locations of all smelters of tin, tantalum, tungsten, and gold used in our products through the EICC-GeSI Conflict Minerals Reporting Template (the "Template").
- We shall request all partners for written verification indicating their use of conflict-free minerals and the submission of the Template.
- We shall support all partners to purchase minerals from smelters certified by Conflict-Free Smelter Program (CFSP).
- We shall establish the due diligence procedure pursuant to the OECD Due Diligence Guidance, and when necessary, the partners shall conduct due diligence for the procedures and materials carried out for the Template.

Conflict Minerals Management for Partners

- All partners must document conflict minerals management policy and procedures to ensure that no conflict minerals contribute to the benefit of the armed forces of the Democratic Republic of the Congo, or its neighboring countries, from the products supplied to ISU PETASYS.
- All partners must give good-will efforts to identify all the names of locations of smelters from which the conflict minerals were purchased within the supply chain.
- All partners must prepare the Conflict Minerals Reporting Template (the "Template") and make a timely submission upon the request of ISU PETASYS.
- All partners must take timely corrective measures upon the discovery of a risk in the supply chain.



Strengthening Product Liability



MANAGEMENT APPROACH

Context

As a company specializing in ultra-high layer PCBs, ISU PETASYS leads the global market by developing ultra-dense, high-quality products. We are fully aware that strict quality control during PCB production further enhances global competitiveness. Our key area of focus is strict quality assurance to provide reliable products to customers.

Our Performance



Zero

Audit Findings on Quality System

Our Approach

To raise quality competitiveness, we are strengthening our quality control system throughout the production process and proactively responding to global IT companies' demands based on our top-class technical skills and quality. We are the first Korean company to be certified for AS 9100 and the National Aerospace and Defense Contractors Accreditation Program (Nadcap), gaining a foothold to enter the aerospace market. In 2017, we acquired the IATF 16494 certification and commenced the development of automotive electronic components.



10

Major Quality Certifications

5.1 Quality Management

Quality Control System for the Entire Process

Quality is one of the major competitive factors of the PCB industry, since it shows the characteristics of the equipment and materials industry. In line with higher quality demands, ISU PETASYS puts more effort into quality assurance. According to the quality policy, we supply products and services at the level of quality the customers demand in a timely manner and at reasonable prices. Our quality control system is applied to the entire production process, from raw material production to packaging, and we are minimizing the rate of defective products in the processing stage through automated optical test and electrical

PCB Manufacturing Process

1. Inner Layer Imaging

Imaging the circuit pattern on the thin-core using working film and dry film made by the inner layer image data received from the customer.

2. Auto Optical Inspection

Inspecting, confirming, and modifying potential defects in the process of forming the inner layer imaging.

3. Lamination

Laminating the oxide-treated inner layers and the prepreg and copper foil for the outer layers into one by applying constant pressure in high temperature and cooling down to the room temperature as decreasing pressure.

4. Drilling

Drilling holes on boards using the X-Y coordinator-applied CNC (computer numerical control).

5. Electrolytic Panel Cu Plating

Plating over electroless Cu layer which gives conductivity to dielectric surface.

6. Outer Layer Imaging

Imaging conductive patterns on outer layers using working film and dry film made by the outer layer image data received from the customer.



performance test. Moreover, we proactively share information of potential risk factors with impact on quality through a pre-notification system (Q-Communication) to the production process so as to reduce the release of nonconforming products or omission of quality assessment.

Our Quality Policy

ISU PETASYS' quality policy is that all employees shall responsibly carry out quality assurance activities that satisfy customers by supplying products and services that meet customers' various requirements such as

1. Ensuring the quality levels specifically required by customers,
2. Providing the prompt feedback and response to customers,
3. Advanced quality support with competitive service fee.

12. Vacuum Packing

Final packaging includes vacuum packaging the products and packaging with protective materials (fillers). Boxes are labeled per customer request, and outgoing and reliability test reports are also attached.

11. Final Visual Inspection & Outgoing Inspection

After visual inspection, a designated inspector examines outgoing inspection criteria and reliability test results through random sampling. The results will qualify/disqualify the products before shipment according to the customer's specification.

10. Electrical Test

The process of testing the electric integrity, such as opens and shorts, by using test fixtures (jig).

9. Routing

The process of shaping the products into required dimension.

8. Surface Finish

Applying various surface finish methods that will minimize Cu oxidation and increase solderability for SMT assembly.

7. Photo Solder Resist Printing

Covering (thus insulating) areas that are not surface-mounted in order to protect conductive patterns from physical and chemical attacks under ambient conditions.

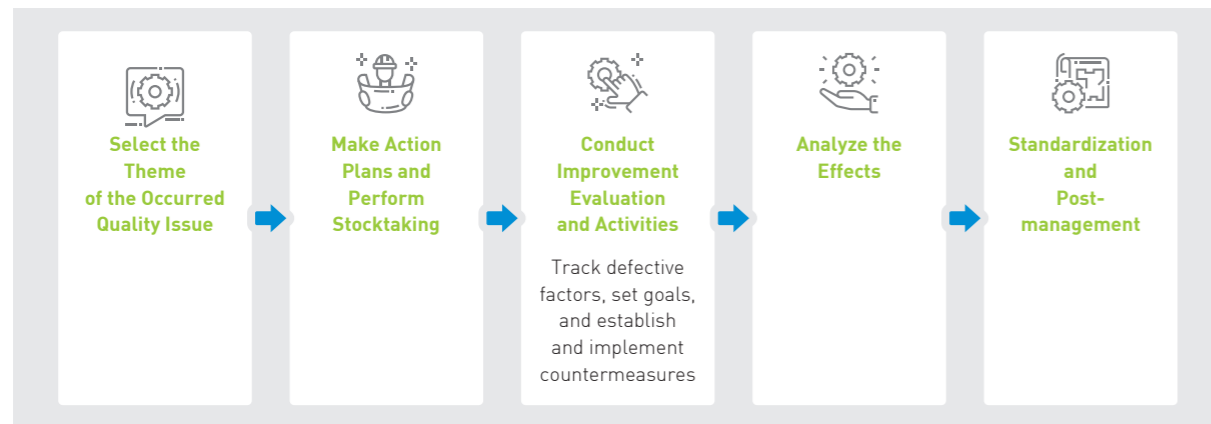
5.2
Quality TFT Activities

ISU PETASYS sets goals to improve deep-seated defects and relentlessly puts plans into practice to realize quality enhancement company-wide. Our quality TFTs perform quality-enhancing activities to diagnose and resolve quality issues comprehensively. The teams also perform daily audits to detect risks in the production process and thus prevent defective products. They modify or eliminate fundamental reasons causing defects, aggressively share ideas and proposals to prevent the recurrence of such issues, and endeavor to put these ideas into practice by weekly checkups of the teams' progress.

Eight quality TFTs, four each in the first half and latter half of 2020 respectively, set detailed goals and improvement rates, and all of them successfully carried out improvement activities achieved their goals. Four TFTs are in operation in the first half of 2021. ISU PETASYS puts utmost effort in supporting the quality improvement activities of the quality TFTs by means such as conducting a quality issue solution training course.

Quality TFT activities do not just involve taking measures against defective products but also deeply analyzing the fundamental reason to ensure non-recurrence. They aim at improving product quality by uprooting quality issues, which display ISU PETASYS' authenticity in quality management.

Process of Quality TFT Activities



Quality and Technology Recognition

ISU PETASYS acquired major quality-related certifications from official quality certification agencies, externally being recognized for excellent quality and technology. From ISO 9001 in 1994 to IATF 16494 in 2017, we have endlessly made efforts to accomplish quality management. The

IATF 16949 obtained in 2017 substitutes the previous TS 16494 and includes regulation requirements and customer-designated demands along with core tools for automobile production and assembly and services and embedded products.

List of Major Certifications



TL 9000 (2003)
Quality management in telecommunications



AS 9100 (2007)
International Quality Management System standard for the Aviation, Space and Defense industry



Nadcap (2010)
Asia's first company to be certified for the National Aerospace and Defense Contractors Accreditation Program (Nadcap)



IATF 16949 (2017)
Automotive Quality Standard

And Six Others:
OHSAS 18001 (2004), MIL-PRF-55110F (2001), Bellcore(2001), QS9000(2001), ISO 14001 (1998), ISO 9001 (1994)



Encouraging Community Engagement



MANAGEMENT APPROACH

Context

Activities to create value for a company are not limited to economic performance but extend to society as a whole. With society's demands for corporate social responsibility, more domestic companies engage in CSR activities based on their strengths and capabilities. CSR adds new value to corporate activities, leading to the sustainable growth of companies.

Our Approach

ISU PETASYS participates in various social contribution activities based on its capabilities and an in-depth understanding of the community. We encourage every employee to voluntarily contribute to community development through volunteer groups and interact with the community through our communication channels. We will most definitely benefit the community and share better values by providing customized social contribution activities.

Our Performance



3.2 hours

Volunteering Hours per Employee



20%

Participation Rate in Social Contribution Activities

6.1 Direction for Social Contribution Activities

ISU PETASYS promotes a balanced development of corporate and social values through social contribution activities. Rather than simple donation activities, we are con-

stantly improving our engagement in volunteering where employees participate, through which we intend to fulfill the value of the social contribution that satisfies both the participant and the beneficiary. Going forward, our contributions to community development will continue, along with our support for education and scholarships, disaster recovery, social imbalance resolution, and the socially disadvantaged.

Our Commitment to Social Contribution

Orientation	Create a Beautiful, Affluent, and Invaluable Future		
Objective	Striving Mutual Growth with the Local Community and Fulfilling Social Responsibility Through Sharing		
Development Direction	Know the Community Needs Implement social contribution activities that meet the community needs and focus on areas in need to increase the effectiveness	Interact and Share with the Community Contribute to mutual growth with the community and actively interact with residents through volunteering	Improve the Corporate Image Raise the corporate brand value and likeability through social contribution activities and improve the corporate image

6.2 Framework of Social Contribution Activities

ISU PETASYS installed the Management Support Team to conduct social contribution activities and establish operation plans, thus making community engagement activities more effective. We propose the standards for social contribution activities through the social contribution activity operation standards and specify the scope and objective of the activities.

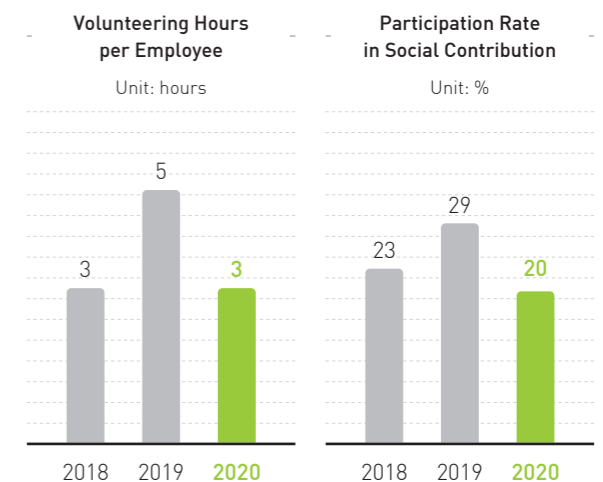
Framework of Social Contribution Activity Promotion

Planning Stage	Planning/Preparation	
	- Recruiting volunteer groups - Establishing social contribution activity operation standards	
Design Stage	Status Analysis and Direction Establishment	
	- Issue and status analysis - Collecting employee opinions - Interim report and check - Composition of volunteer groups	
Execution Stage	Completed Programs	Incomplete Programs
	- Volunteer meetings	- New volunteer programs - Fundraising by employees
Result	Analysis of Effectiveness	
	- Performance report - Examining social contribution programs - Managing social contribution performance (social contribution activities costs, participation rate, and community issue resolution rate)	

6.3 Encouraging Employee Participation

ISU PETASYS carries out various attempts for all employees to realize the importance of corporate social responsibility. We make the culture of sharing take root through our ISU sharing volunteer group. By operating paid volunteering systems, we provide expenses necessary for volunteering to increase employees' participation rate and volunteering hours. Employees may proceed with paid community volunteering in a team or a department annually for up to eight hours. Every year, we set goals for employees' volunteering hours and social contribution participation rates and make sure to reach the goals by expanding the scope of our volunteering and aggressively promoting our volunteer groups to the public.

Volunteering by Employees



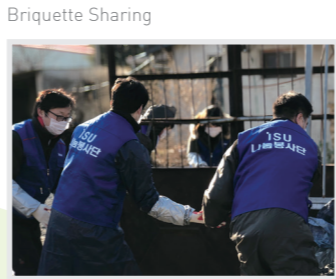
6.4 Key Social Contribution Programs



Vision School



Multi-cultural Bridge



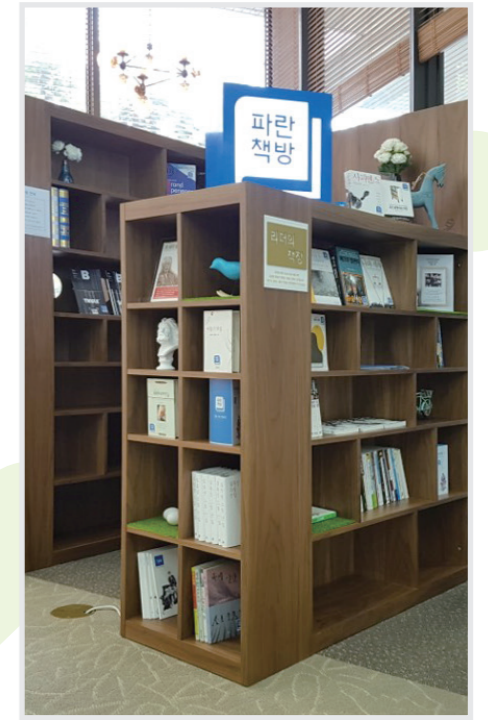
Briquette Sharing



Electronic Devices Donation



Support for Facilities for the Handicapped



The Blue Bookstore Campaign

Capacity-building Program for Teenagers
Vision School

ISU PETASYS' Vision School is a program jointly carried out with the community NGO to encourage teenagers' self-directed learning and build their capacity. Vision School offers career counseling and career experience programs by inviting experts in various fields and providing an opportunity to visit different universities. In 2020, the program benefited 12 teenagers for 12 sessions in total through our partnership with local middle schools. Through Vision School, ISU PETASYS will continue to make ongoing efforts to offer more career experience programs to low-income teenagers in the local community.

12 persons Benefited Teenagers in 2020

Bridging Cultural Gap Among Multi-cultural Families
Multi-cultural Bridge

Since its partnership with Dalseong Social Services Center in Daegu, ISU PETASYS has been supporting low-income multi-cultural families with school-age children to help the children establish bicultural identities. The Multi-cultural Bridge program shares the cultures of different countries through activities such as making traditional dishes (mooncake) and simple items (key chains).

Briquette Sharing

ISU PETASYS' sharing volunteer group carries out the briquette sharing activity for senior citizens living alone in Daegu area. We expanded the scope of participants to encourage participation among the employees' families, thus contributing to the increase in the value of sharing. In 2020, we delivered 500 pieces of briquette to the elderly living alone in Dalseong-gun, Daegu.

Support for Facilities for the Handicapped

The ISU sharing volunteer group visits the social services center in Dalseong-gun, Daegu every month to support persons with disabilities. The volunteers engage in various activities, such as cleaning the building and repairing wheelchairs. Our efforts to interact with residents in the local community and fulfill corporate social responsibility will continue through our community sharing activities.

Electronic Devices Donation

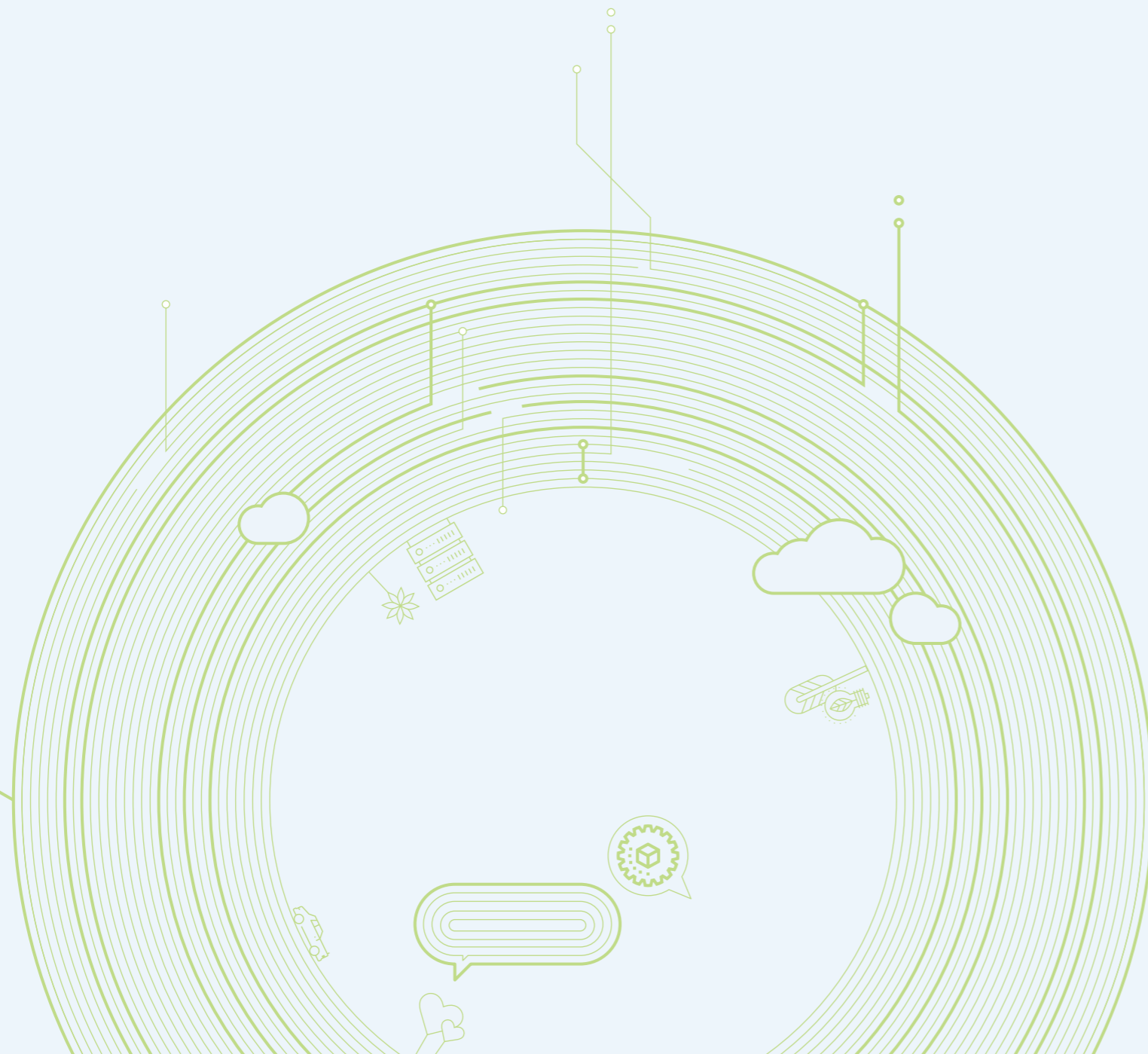
In cooperation with the Korea IT Welfare Agency, ISU PETASYS holds biannual donations of electronic devices (including computers, monitors, printers, and multi-function printers) to developing countries. We collect and repair unused or aged devices to donate them to the vulnerable classes. We donated 32 electronic devices in 2020. Going forward, our donations for the socially disadvantaged will continue to fulfill our role as a responsible company.

The Blue Bookstore Campaign

Since 2017, ISU PETASYS has donated books through "The Blue Bookstore Campaign" as part of its social contribution activities. The Blue Bookstore Campaign is a corporate social responsibility campaign to provide books donated by our employees to institutions in need. In the 2018 Gwangju Biennale, we participated in the interactive book-sharing program "THE BLUEBOX PROJECT" to donate 270 books collected through the Blue Bookstore. In the exhibition, visitors were given the opportunity to pick books just by referring to keywords indicated in the blind book and share the selected books with others. As such, our commitment to donating books to the local community will continue through the Blue Bookstore because we know that book donation presents heart-warming values to the community and the vulnerable classes.

APPENDIX

1. CSR Performance
2. GRI Content Index
3. Third-party Verification Opinion
4. Our Engagement in the Ten Principles of the UNGC
5. Awards and Memberships



CSR Performance

Economic Performance

Financial Statement (Separate)

Classification	Unit	2018	2019	2020
Current Assets	KRW million	171,884	138,121	151,217
Non-Current Assets	KRW million	172,769	143,050	108,387
Total Assets	KRW million	344,653	281,171	259,604
Current Liabilities	KRW million	114,811	153,969	142,294
Non-Current Liabilities	KRW million	49,581	27,602	19,281
Total Liabilities	KRW million	164,392	181,571	161,575
Capital	KRW million	41,268	41,268	41,268
Capital Surplus	KRW million	46,777	46,777	48,562
Retained Earnings	KRW million	114,618	34,927	28,203
Total Capital	KRW million	180,261	99,600	98,029

Income Statement (Separate)

Classification	Unit	2018	2019	2020
Sales	KRW million	333,096	318,847	335,067
Gross Profit	KRW million	62,045	45,106	46,077
Operating Income	KRW million	35,421	18,945	22,168
Non-Operating Income	KRW million	14,493	12,127	12,810
Non-Operating Expenses	KRW million	49,376	85,477	35,041
Net Income (Loss)	KRW million	[7,297]	[69,903]	[3,668]

Creation and Allocation of Economic Value

Stakeholder	Economic value	Unit	2020
Shareholder And Investor	Dividend	KRW million	2,386
Employee	Wage, severance pay, welfare benefits	KRW million	116,536
Local Community	Investment for social contribution	KRW million	31
Government	Corporate tax	KRW million	3,605
Total	KRW million		78,023

CSR Key Performance Indicators (KPIs)

Human Rights & Labor

Classification	Unit	2018	2019	2020	2021 Goal
Education Hours per Employee	hours	96.73	81.58	53.46	64.20
Education/Training Expenses per Employee	KRW 1,000	765	637	172	329
Total Education/Training Expenses	KRW 1,000	688,735	554,485	147,224	279,441
New Recruits*	persons (%)	135(14.7%)	27(3.0%)	7(0.8%)	12(1.4%)
Female Employee Employment Rate	%	9.6	15.2	57.0	20.0
Proportion of Female Employees	%	8.5	8.4	8.8	10.0
Rate of Return to Work After Maternity/Parental Leave	%	100.0	100.0	100.0	100.0
Employment Rate of Persons with Disabilities	%	3.7	4.2	4.1	5.0
Resignation Rate	%	7.20	5.49	2.93	2.00
Average Length of Service	year	13 years and 6 months	14 years and 5 months	15 years and 2 months	16 years and 2 months
Average Wage Growth Rate	%	7.8	4.6	4.2	4.5
Welfare Benefits Compared to Sales	%	1.4	2.2	2.0	2.1
Union Subscription Rate**	%	91.8	97.9	99.5	99.6

* Fewer recruitments in 2020 due to the outbreak of COVID-19.

** The ratio of total employees represented by the Labor-Management Health and Safety Committee is equal to the number of employees and the management.

ESH

Classification	Unit	2018	2019	2020	2021 Goal	
Greenhouse Gas Emissions	Scope 1 (Direct) Emissions	tCO ₂ eq	23,840	17,415	23,778	22,589
	Scope 2 (Indirect) Emissions	tCO ₂ eq	30,690	29,327	28,788	27,349
Energy Consumption	Scope 1 (Direct) Consumption	TJ	142	119	120	114
	Scope 2 (Indirect) Consumption	TJ	632	603	592	562
Waste Disposal	General, Base Unit	Ton/m ²	35.30	38.95	30.02	29.11
	Designated, Base Unit	Ton/m ²	32.21	33.11	29.96	29.06
Waste Recycling Rate	%	86	90	89	91	
Nox Emissions	g/m ²	19.66	14.41	33.52	32.51	
Ammonia Emissions	g/m ²	8,361.94	77.48	29.42	28.53	
Wastewater Discharge, Base Unit	Ton/m ²	8,361.94	7,688.66	6,632.98	6,433.99	
Water Pollutant Discharge	Cod, Base Unit	Kg/m ²	732.73	397.49	451.71	438.15
	Ss, Base Unit	Kg/m ²	123.61	81.59	92.53	89.75
	T-N, Base Unit	Kg/m ²	271.11	316.90	277.71	269.37
	Cu, Base Unit	Kg/m ²	4.13	2.54	5.96	5.78
Water Consumption, Base Unit	Kg/m ²	8.93	8,933.99	10,120.52	7,525.02	
Number of Harmful Substances Discharged	case	-	0	0	0	
Number of Safety-Related Accidents	case	-	0	0	0	
Incident Rate (Accidental Disasters)	%	0.0%	0.0%	0.0%	0.0%	
Amount of Harmful Substances Used, Base Unit	Kg/m ²	62.42	62.42	14.41	33.52	

CSR Key Performance Indicators (KPIs)

Fair Operating

Classification	Unit	2018	2019	2020	2021 Goal
Education on Anti-Corruption and Fair Trade	persons	895	890	874	879
Execution Rate of The Csr Audit of Suppliers	%	78	100	100	100

Product & Customer

Classification	Unit	2018	2019	2020	2021 Goal
Timely Resolution Rate of Customer Complaints	%	100	100	100	100
Number of Audit Findings on Quality System	case	0	0	0	0
Customer Satisfaction	points	82	81	82	82

Community Involvement & Development

Classification	Unit	2018	2019	2020	2021 Goal
Volunteering Hours per Employee	hours	3	4.7	3.2	3.2
Participation Rate in Social Contribution	%	23	24	20	20

GRI Content Index

Universal Standard (GRI 100)

GRI Standard	Indicator	Disclosure	Page
Organizational Profile	GRI 102-1	Name of the organization	6
	GRI 102-2	Activities, brands, products, and services	6, 7, 8
	GRI 102-3	Location of headquarters	6
	GRI 102-4	Location of operations (number and names of countries where the organization operates)	6
	GRI 102-5	Ownership and legal form	6
	GRI 102-6	Markets served	6
	GRI 102-7	Scale of the organization	6
	GRI 102-8	Information on employees and other workers	6, 26
	GRI 102-9	Supply chain	36-39
	GRI 102-10	Significant changes to the organization and its supply chain	N/A
	GRI 102-11	Precautionary Principle or approach	12-13
	GRI 102-12	External initiatives	57
	GRI 102-13	Membership of associations (industry or other associations) or national or international advocacy organizations	57
Strategy	GRI 102-14	Statement from senior decision-maker	4-5
	GRI 102-15	Key impacts, risks, and opportunities	5, 14-15
Ethics and Integrity	GRI 102-16	Values, principles, standards, and norms of behavior	5, 7, 12-13, 25
	GRI 102-17	Mechanisms for advice and concerns about ethics	12-13
Governance	GRI 102-18	Governance structure	10-11
	GRI 102-35	Remuneration policies	10-11
Stakeholder Engagement	GRI 102-40	List of stakeholder groups	16-17
	GRI 102-41	Collective bargaining agreements	26
	GRI 102-42	Identifying and selecting stakeholders	16-17
	GRI 102-43	Approach to stakeholder engagement	16-17
	GRI 102-44	Key topics and concerns raised	16-17

Universal Standard (GRI 100)

GRI Standard	Indicator	Disclosure	Page
Reporting Practice	GRI 102-45	Entities included in the consolidated financial statements	6
	GRI 102-46	Defining report content and topic Boundaries	About This Report
	GRI 102-47	List of material topics	17
	GRI 102-48	Restatements of information	N/A
	GRI 102-49	Changes in reporting	N/A
	GRI 102-50	Reporting period	About This Report
	GRI 102-51	Date of most recent report	About This Report
	GRI 102-52	Reporting cycle	About This Report
	GRI 102-53	Contact point for questions regarding the report	About This Report
	GRI 102-54	Claims of reporting in accordance with the GRI Standards	About This Report
	GRI 102-55	GRI content index	53-55
	GRI 102-56	External assurance	56
Management Approach	GRI 103-1	Explanation of the material topic and its Boundary; The management approach and its components; and Evaluation of the management approach	20, 24, 28, 36, 40, 44
	GRI 103-2		
	GRI 103-3		

Topic Specific Standards - Economic Performance (GRI 200)

GRI Standard	Indicator	Disclosure	Page
Economic Performance	GRI 201-1	Direct economic value generated and distributed	50
	GRI 201-2	Financial implications and other risks and opportunities due to climate change	28, 32
Indirect Economic Impacts	GRI 203-1	Infrastructure investments and services supported	44-47
	GRI 203-2	Significant indirect economic impacts	44-47
Anti-corruption	GRI 205-2	Communication and training about anti-corruption policies and procedures	36, 38
	GRI 205-3	Confirmed incidents of corruption and actions taken	38

Topic Specific Standards - Environmental Performance (GRI 300)

GRI Standard	Indicator	Disclosure	Page
Energy	GRI 302-1	Energy consumption within the organization	32, 41
Water	GRI 303-5	Water consumption	32, 51
Emissions	GRI 305-1	Direct (Scope 1) GHG emissions	51
	GRI 305-2	Energy indirect (Scope 2) GHG emissions	51
	GRI 305-7	Significant air emissions	51
Waste	GRI 306-2	Total amount of waste	31
Compliance	GRI 307-1	Penalties and non-monetary sanctions imposed on violation of environmental laws and regulations	N/A

Topic Specific Standards - Social Performance (GRI 400)

GRI Standard	Indicator	Disclosure	Page
Employment	GRI 401-1	New employee hires and employee turnover	51
	GRI 401-3	Return to work and retention rates of employees that took parental leave, by gender	51
Occupational Health and Safety	GRI 403-1	Ratio of total employees represented by the Labor-Management Health and Safety Committee	51
	GRI 403-2	Injury type, injury rate, occupational disease rate, percentage of the number of off-days, absence rate, fatalities	28-29
Training and Education	GRI 404-1	Average hours of training per year per employee	27, 51
	GRI 404-2	Programs for upgrading employee skills and transition assistance programs	26-27
	GRI 404-3	Percentage of employees receiving regular performance and career development reviews*	26-27
Diversity and Equal Opportunity	GRI 405-1	Diversity of governance bodies and employees	10-11
Non-Discrimination	GRI 406-1	Incidents of discrimination and corrective actions taken	26
Child Labor	GRI 408-1	Operations and suppliers at significant risk for incidents of child labor	38-39
Forced or Compulsory Labor	GRI 409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	38-39
Local Communities	GRI 413-1	Operations with local community engagement, impact assessments, and development programs	44-47
Customer Health and Safety	GRI 416-1	Assessment of the health and safety impacts of product and service categories	29-30
Customer Privacy	GRI 418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	N/A

* 100% of total employees

Third-party Verification Opinion

To ISU Petasys' Management and Stakeholders:

Introduction

The Korean Standards Association ("the verifier" hereinafter) has been requested to independently verify the 2021 ISU Petasys CSR Report ("the report" hereinafter). The verifier has presented its independent verification opinion by reviewing the viability of the data included in the report produced by ISU Petasys. ISU Petasys is responsible for all the claims and achievements included in the report.

Independence

Being an independent verification agency, the verifier has no interests across the entire business activities of ISU Petasys other than the service of providing a third-party verification of the report, nor does it have any associations for profit which may degrade its independence.

Verification Standards and Level

The verifier has performed the verification based on the GRI Standards and concluded that the company's compliance with the principles of inclusiveness, materiality, response and impact and the reliability of the information included in the report are 'moderate' based on the AA1000AS v3 verification guidelines.

Type and Scope of Verification

The verifier has performed a Type 2 verification based on AA1000AS v3. This means that the verifier has assessed the accuracy of the claims of ISU Petasys and the information concerning its achievements included in the report. The verifier has conducted its verification based on the period from January 1, 2020 to December 31, 2020, focusing on systems and activities, including CSR management policies and objectives, businesses, standards, achievements, etc. The verifier has also verified the environmental and societal data and the financial data concerning financial achievements in the broad sense. The verification of stakeholder participation has been limited to a review of the materiality assessment process.

Verification Methods

The verifier has collected the information, data and evidence related to the verification scope using the following methods:

- Review of the CSR strategic system, committee activities and achievements, and processes.
- Details of CSR management activities and CSR audit of ISU Petasys' partner and customer companies.
- Review of the agreement between the audit report on financial performance data and financial statements and the data disclosed.
- Procedure for assessing materiality and processes for deriving priority orders.
- Review of internal documents and raw data.

Verification Results and Opinions [at the level of verification principles and processes]

The verifier has reviewed and presented opinions on the details included in the draft report. The report has been corrected based on such a review outcome. In addition, the verifier could not find any material errors or inappropriate descriptions in the contents included in this report. The verifier presents the following opinion on the ISU Petasys Report:

Inclusiveness

- Has ISU Petasys included its stakeholders in the process of its strategic response to sustainability issues?

It has been confirmed that ISU Petasys has striven to develop processes that allow its stakeholders to participate in its programs for sustainability as it recognizes their participation to be critical. It has been confirmed that ISU Petasys has diverse group-based communication channels by which to collect diverse opinions by selecting its customers, partner companies, shareholders, investors, government and related agencies, local communities, etc. as its shareholder groups.

Materiality

- Has ISU Petasys included any material information that will allow its stakeholders to make informed decisions in its report?

It has been judged that ISU Petasys has not omitted or excluded any material information for its stakeholders. It has also been confirmed that ISU Petasys performed the materiality assessment with key issues derived from its analysis of its internal and external environments to report the materiality based on the results of such assessment.

Responsiveness

- Has ISU Petasys duly responded to the requests and concerns of its stakeholders?

It has been confirmed that ISU Petasys has made concerted efforts to respond to the requirements and interests of its stakeholders by reflecting the opinions collected from them in its report. In addition, we have not discovered any evidence to the effect that ISU Petasys' activities responding to the issues related to its stakeholders have been inappropriately reported.

Impact

- Has ISU Petasys duly monitored the impact on its stakeholders?

It has been confirmed that ISU Petasys has surveyed and monitored the impact of its business activities on its stakeholders based on the updated verification standards. It has also been confirmed that the details are duly reflected in its report.

Review of GRI Standards Application Level

The verifier has confirmed that this report has been prepared in accordance with the Core Options of the GRI Standards. The verifier has also confirmed based on the data provided by ISU Petasys that the details related to the indicators of the following universal standards and topic-specific standards are facts based on the data provided.

Universal Standards

The verifier has confirmed that the report has followed the requirements of the Core Option common standards by reviewing the following indicators: 102-1 to 102-13 (Profile of organizations), 102-14 (Strategies), 102-16 to 102-17 (Ethics and integrity), 102-18 (Governance structure), 102-40 to 102-44 (Engagement of stakeholders), 102-45 to 102-56 (Reporting practices), 103 (Business approach methods)

Topic-specific Standards

The verifier has confirmed the specific disclosure items of the material aspects derived through the process for determining the items reported by reviewing the following indicators:

- Economy: 201-1
- Environment: 302-1, 305-1, 305-2, 305-7, 306-2
- Society: 401-1, 401-3, 403-1, 403-2, 404-1, 404-2, 404-3, 405-1, 406-1, 408-1, 409-1, 413-1, 416-1, 418-1

Opinions and Improvement Suggested by Segment

The verifier recommends that ISU Petasys review the items listed below to develop its enterprise-wide sustainability strategies for steadily responding to the issues:

Economic Segment

ISU Petasys produces Ultra High Layer PCBs, maintaining its leading position in the global market while sharing its economic activities and achievements with its stakeholders through its CSR Report. In addition, ISU Petasys strives to create sustainable value together with its diverse stakeholders, including the customers, shareholders, officers and employees, local communities, etc., while increasing the sales of its high value-added product groups and managing risks through enhanced cost competitiveness even amid the widespread economic uncertainty engendered by the COVID-19 crisis. The verifier of the economic achievements recommends that ISU Petasys continue with its steady managerial innovations and maintain its transparency based on the reliability of its accounting data to maintain its position as a supplier of global-class PCBs.

Environmental Segment

ISU Petasys has published its sustainability report in accordance with the global environmental trends while recognizing the impact of its business activities on the environment, society, and economy. It is imperative for the company to collect and publish the environmental indicators as a part of its societal responsibilities. It appears that such efforts will contribute to the reduction of environmental pollution in the future. However, it is necessary to enhance its disclosure of indicators related to the "sustainable use of resources", which has been implemented as a key task. The items related to the use of resources, such as the "use of raw materials and accessories" and "reduction of energy consumption", are specifically linked to the tasks. It is regrettable that the company has no specific targets or performance concerning the relevant topics. We recommend that the company specifically describe the key tasks based on the cycle of plan-do-check-act (PDCA) in future disclosures.

Societal Segment

It has been confirmed that ISU Petasys has faithfully responded to the requirements for periodic CSR auditing of its customer companies and has periodically managed its partner companies. The verifier has checked the details of the company's ethics code and the code of conduct that it prepared by referring to the Responsible Business Alliance (RBA) standards, and the global standards for the management of disputed minerals and partner companies. This is an excellent case in which the supply chain is managed according to the global standards. However, we recommend that ISU Petasys include its overseas operations in its report as it currently limits the scope of its report to its domestic operations. Lastly, we recommend that the company describe the critical issues in greater detail and also prepare its report so as to satisfy more fully the overall requirements of the GRI Standard indicators, the standards for preparation of the report.

July 2021

Korea Standards Association, CEO and Chair **Kang Myeong-su**



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Myeong-su Kang

The Korea Standards Association is a special purpose corporation founded based on the Korea Industrial Standardization Act in 1962. It is a knowledge service agency that disseminates to businesses information and knowledge concerning industrial standards, quality management, sustainable management, and KS and ISO certifications. In particular, it has contributed to the sustainable development of Korean society as the ISO 26000 Korea lead agency, designated GRI Education Institute, the AA1000 Verification Agency, the Korea Sustainability Indicators (KSI) Management Agency, the UN CDM Operating Agency, and an agency responsible for verifying the control of greenhouse gas emission and energy.

Our Engagement in the Ten Principles of the UNGC

ISU PETASYS takes part in the global initiative UN Global Compact (UNGC) principles and promotes support and implementation of corporate social responsibility. We aggressively reflect the Ten Principles of the UNGC on human rights, labor, environment, and anti-corruption in our CSR policies and operations to further enhance our CSR competitiveness to the global level.

UN Global Compact

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

Awards and Memberships

Daegu Enterprises Federation	Daegu Chamber of Commerce and Industry	Dalseong Industrial Complex Safety and Health Association
Korea International Trade Association	Korea Exchange	Dalseong Industrial Complex Free Environmental Surveillance Association
UN Global Compact	Korea Listed Companies Association	Korea Institute of Science and Technology Information
Federation of Korean Trade Unions	Korea Electric Engineers Association	KISANHYUP
Electronics and Telecommunications Research Institute	Korea Printed Circuit Association	Korea Environmental Engineers Association
Daegyeong Region PSM Safety and Management Association	Korea Industrial Safety Association	DAEWOSKY

ISU PETASYS Sustainability Report 2021

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