

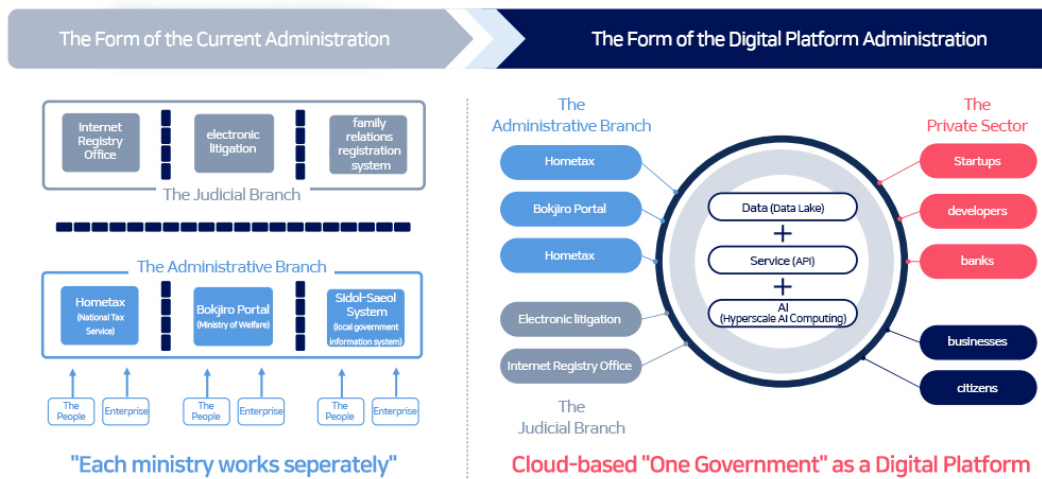
# New Government ICT Policy and Artificial Intelligence Reliability

by Kwak Junho, Senior Researcher at TTA

## This Government's Representative Pledge on ICT

The new government administration has put forward 'realization of a digital platform administration' as its representative pledge on ICT. This was announced as a national task, followed by a detailed roadmap in May. The term 'digital platform administration' refers to a government where all data is connected, and people, business, and government solve social problems together and create new value based on artificial intelligence.

## The Form of the Digital Platform Administration



▲Source: Presentation material of the Presidential Transition Committee ▲

The main goals of realizing digital platform government include the opening of access to public data, the linking and utilization of across-the-government data and services, the promotion of projects for public perception, and the scientific administrative operation based on artificial intelligence and data. In particular, the first two years are the planning and introduction stage, enacting special laws, building infrastructure, and expanding public data openness until the fourth year, and completing the fifth year to advance the digital platform government.

In fact, this is not the first time that discussions about data and AI-based administration and policies have been discussed. In the Basic Plan for Data-Based Administrative Actualization(2021-2023), prepared jointly by relevant ministries in February 2021, tasks and examples to be implemented across various administrative fields had been listed and are being pursued. Here, data integration management and joint use, policymaking, and implementation support are presented as key initiatives, and through this, it is proposed to apply intelligent CCTV-based public safety management and crime prevention, immigration screening, veteran screening, talent recommendation and talent information management, etc. across the fields. It is understood that the construction of infrastructure and platforms for such data and artificial intelligence-based administration is being more greatly emphasized in line with the needs of the times.

## **Digital Platforms and Artificial Intelligence**

Digital platform administration is expected to bring many benefits and effects to the people, the policymakers, and the implementers at the forefront of policy and administration through precise prediction of policy effects and efficient policy execution based on data and artificial intelligence. From this point of view, it is the most important among the 110 tasks announced as national tasks, and it can be seen as a item that determines the success of other policies and tasks.

There will be various challenges for the implementation of such a digital platform administration. Given that it has been difficult to integrate and utilize public data in the past, it seems that solving

this problem should be a priority, and it is necessary to find a way to maximize the effect by carrying out leading projects so that the people can experience them for themselves. In addition, legal and physical infrastructure must also be established to enable these areas. However, the reliability of artificial intelligence is something that must be considered along with this.

## AI **The Reliability of Artificial Intelligence**

The reliability of artificial intelligence began to be discussed in the international community in the mid to late 2010s as large and small issues arose, such as bias and discrimination in the process of using and applying artificial intelligence, the ability to explain, and cases of malfunctioning. This is more widely known to the general public as the concept of artificial intelligence ethics.

Reliability refers to technically verifiable parts of this. In particular, last year, the EC and UNESCO proposed principles, regulations, and recommendations to secure artificial intelligence ethics and reliability, and international organizations such as OECD, IEEE, ISO/IEC, and international standardization organizations are making efforts to refine the reliability discussions. Reliability is a comprehensive concept in which various attributes must be considered. These include the explanation of artificial intelligence, transparency, accountability, fairness, safety and robustness, and personal information protection.

# The Three Basic Principles

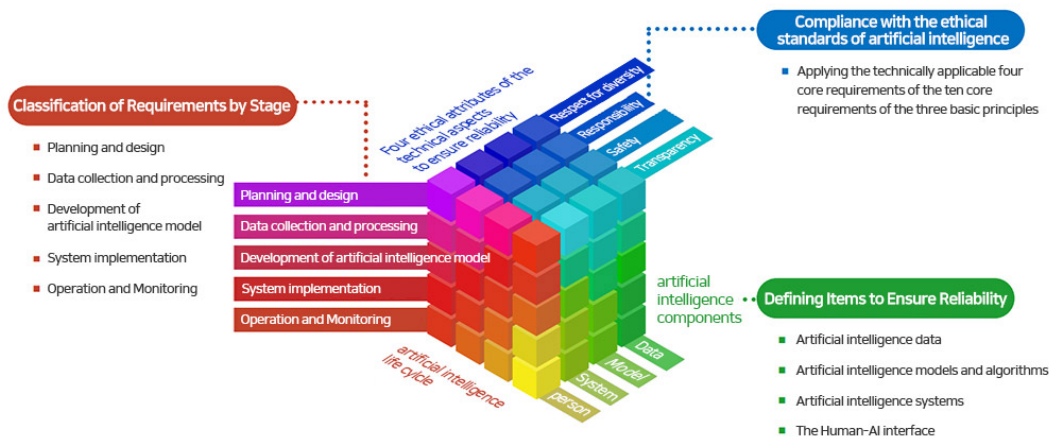
Principles to be considered in the process of developing and utilizing artificial intelligence

Principles	Contents
The Principle of Human Dignity	<ul style="list-style-type: none"><li>- As a living being with a human body and reason, artificial intelligence shall have an irreplaceable value, as with machine products developed for humans.</li><li>- Artificial intelligence should be developed and utilized within the bounds of not being harmful to human life as well as to mental and physical health.</li><li>- The development and use of artificial intelligence must be safe and robust so as not to be harmful to humans.</li></ul>
The Principle of the Common Good	<ul style="list-style-type: none"><li>- As a community, society pursues the value of well-being and happiness of as many people as possible.</li><li>- Artificial intelligence should be developed and utilized to ensure accessibility of the socially disadvantaged and vulnerable groups who are easily marginalized in an intelligent information society.</li><li>- The development and use of artificial intelligence for the promotion of the public interest should be able to improve the universal welfare of mankind from a social, national, and even global perspective.</li></ul>
The Principle of Feasibility of Technology	<ul style="list-style-type: none"><li>- Artificial intelligence technology must be developed and used in accordance with the purpose and intention of being a tool necessary for human life, and the process must be ethical.</li><li>- It should be promoted by encouraging the development and use of artificial intelligence for the life and prosperity of mankind.</li></ul>

▲Artificial Intelligence Ethical Standards: Three Basic Principles. Source: Ministry of Science and ICT, 「Artificial Intelligence (AI) Ethical Standards」▲

In Korea, in line with the movement of the international community, the Ministry of Science and ICT prepared the ethical standards for artificial intelligence in December 2020, and prepared the ethical self-checklist and reliable artificial intelligence development guide in February 2022. In particular, the Reliable Artificial Intelligence Development Guide contains the definition of artificial intelligence reliability and reliability requirements that practitioners such as developers and planners should consider when implementing actual artificial intelligence. This is the result of a comprehensive analysis of various discussions and literature in the international community as well as the opinions of many domestic artificial intelligence experts and practitioners. According to the implementation stage of artificial intelligence products and services, 14 requirements are presented, and explanations and examples are available. It is significant in presenting technically detailed requirements in circumstances where documents at the level of abstract principles are still being provided on the reliability of artificial intelligence at home and abroad.

However, since artificial intelligence reliability is still a volatile concept, it is continuously being improved upon and supplemented by reflective discussions and standardization trends in the international community. In addition, since there are various fields in which artificial intelligence is used, specialized guides for each field must be additionally developed, and work in this area is also in progress.



▲Artificial Intelligence Reliability Concepts and Framework. Source: TTA.▲

## Key Discussion Topics and Future Trends

The key engine in driving digital platform administration is artificial intelligence. In order for AI-based administration and policies to properly and effectively permeate the people and society, the level of reliability required by the people and society must be established. In particular, unlike AI in the private and industrial sectors, the application of AI in the public sector has great implications. This is because it is a field in which many people can come into close contact in real life, making it easier to feel the effects and power of using artificial intelligence.

If the results of an AI algorithm are not given an accurate explanation in the process of precise prediction of policy effect, policymakers will have difficulties in following up on the results and making final judgments. Transparency in the AI results and the AI process should also be ensured in the policy implementation process. In addition, if bias and discrimination that may occur in our

society are not filtered out and reflected in policymaking and implementation, or amplified through artificial intelligence, this will cause social controversy. The privacy issue of data protection is also a factor that needs to be taken into consideration from a reliability point of view. As such, there are many risks in the process of using and applying artificial intelligence.

Therefore, digital platform administration will have to ensure the best exemplar of artificial intelligence reliability. This means that considerations for ensuring the reliability of artificial intelligence must be applied from the digital platform administration implementation process to future operational processes. Based on the level required by the international community, it should be at a level that is acceptable to the people and society. Through this, it is hoped that the use of artificial intelligence in the public and policy sectors will be an opportunity to gain the trust of the people and society and furthermore, it will be the first step toward the national goal of 'a just society in which reason prevails'.

# Newly Changed ICT Policy and Overseas Digital Infrastructure Policy Trends

"In the era of the Digital Earth, we will strengthen our digital economic strategic alliances and create and export a digital governance platform so that Korea can gain digital economic dominance." With the inauguration of the new administration, a wind of change is sensed in the information and communication technology(ICT) industry. President Yoon Seok-yeol cited the establishment of a 'digital platform administration' within three years of his term as a key pledge. This is a plan to connect the government's public services into one and optimize it smartly by using AI and big data.

## The Korea-U.S. Alliance Has Evolved into a Technology Alliance

President Yoon Seok-yeol and U.S. President Joe Biden held a South Korea-U.S. summit at the presidential office building in Yongsan on May 21. Here, the two leaders issued a joint statement to share the need for cooperation in leading technology innovation and building and spreading digital infrastructure based on core technologies such as AI, data, 5G, and 6G, beyond military and economic security. Fully aware that Korean and American scientists, researchers, and engineers are at the world's most innovative level, the two leaders agreed to strengthen public-private cooperation to protect and promote core and emerging technologies, including advanced semiconductors and artificial intelligence. This is the result of the two leaders determining that technological cooperation has recently become as important as military cooperation.

### <Contents of the Korea-U.S. Summit Agreement on ICT Policy>

- Deepening and expanding cooperation with core and emerging technologies and cyber security

- Cooperation on an early warning system for supply chain disturbances
- Overseas investment review related to core technologies
- Cooperation between export control authorities
- Support for the development of the Korean Satellite Navigation System(KPS) in the United States
- Collaboration on 5G and 6G network equipment and structural development
- Cooperation through the Indo-Pacific Economic Framework(IPEF)



▲Source: The 20th Presidential Office▲

## The New Government of the Republic of Korea Promotes a New Leap Forward Through Digital Infrastructure

With the inauguration of a new administration, a wind of change is sensed in the ICT industry. Innovative growth using digital infrastructure and re-emergence through it are expected to be promoted in crises such as U.S.-China hegemonic competition, pandemic situations, and low growth. Details can be found through the Yoon Seok-yeol administration's stated tasks: 'Realization of National Dominance in a Digital Economy(Task 77)' and 'Establishment of the World's Best Networks and Acceleration of Digital Innovation(Task 78)'.



### <Task 77: Realization of Digital Economic Dominance through Public-Private Cooperation>


- (Superior AI Nation). Promoting large-scale and challenging AI R&D and fostering AI semiconductors to ensure the highest level of AI technology.
- (High Integration of Public and Private Data). Establishment of a national data policy control tower, expansion of public data access, and creation of an industrial base that users can conveniently search and utilize.
- (Cloud and Software Development). Priority use of private cloud computing and commercial software in the public sector, creation of a service software-oriented(SaaS) ecosystem, and securing software source technology.
- (Securing New Technologies). Public-private partnerships to promote large-scale R&D in key strategic areas to accumulate technology as a national strategic asset.
- (Actualization of a Metaverse Economy). The enactment of a special metaverse act, the actualization of a metaverse ecosystem that supports economic and daily activities, and the creation of trust through blockchain.
- (Innovative and Just Digital Platform). The establishment of a developmental strategy and self-regulatory system led by the private sector to promote sound innovation and growth of the platform, and to maximize the creation of social value.

## **Policy Trends Related to Digital Infrastructure of Major Overseas Countries**

The U.S. is pushing to promote high-tech technologies to outmaneuver global technology competition through the U.S. Innovation and Competition Act(Senate, June 2021) and the America COMPETES Act(House of Representatives, February 2022). In particular, in accordance with the Endless Frontier Act, a detailed bill of the U.S. Innovation and Competition Act, artificial intelligence and machine learning high-performance semiconductors; quantum computing; disaster response technology; advanced communications cybersecurity robotics, automation, and advanced manufacturing medicine and biomedicine; advanced energy technology. and cutting-edge materials have been selected as the ten key strategic technology areas, and a total of 29 billion dollars is being invested over five years from 2022 to expand digital infrastructure. In addition, the America COMPETES Act promotes global leadership by stabilizing the supply chain

and strengthening research and technology competitiveness, and includes research support in the fields of semiconductors, quantum computing, AI, and cybersecurity.

The European Commission(EC) announced its 2030 Digital Compass strategy, focusing on innovation and digitalization in four areas(March 2021) specialists, infrastructure, business, and public services to implement digital transformation in Europe by 2030. In addition, in areas where it is difficult for a single member country to promote a project, large multinational projects such as data infrastructure, low-power processors, 5G communications, high-performance computing, quantum communications, blockchain, public administration, digital innovation hubs, and digital workforce development are being pursued to be realized by 2030. Germany promotes digital innovation using digital infrastructure and core technologies in the Coalition Government Agreement 2021-2025 announced after the inauguration of the Scholz government, and France promotes eco-friendly, digital and social solidarity through the France Relance, a part of the Transformation Numerique de l'Etat et des Collectivites, which is a detailed investment plan of 100 billion euros established in three major areas, including a detailed plan for the modernization and digitalization of French industry.

Table  Singapore RIE 2025 Promotion Areas

Categories	Implementation Details
Manufacturing, Trade and Connectivity	MEMS, state-of-the-art materials, eco-friendly manufacturing supply chain platforms, aviation maritime automation, 3D printing
Human Health and Potential	Improvement of public health, customized medical care, and learning ability
Urban Solutions and Sustainability	Innovation in smart cities and architectural environment
Smart Nation and Digital Economy	Artificial intelligence (AI), cybersecurity, quantum computing, reliability in technology, 5G

자료 : European Commission (2021.3)

▲Source: Institute of Information, Communications, and Technology Planning and Evaluation. ICT Brief(No. 2022-21)▲

The Chinese government is promoting new industries in seven major areas by announcing the New Infrastructure Policy, the Chinese version of the Digital New Deal project, and their National Development and Reform Commission announced plans to expand new infrastructure and presented digital infrastructure(information and communication infrastructure, convergence infrastructure, and innovation infrastructure).

Table Contents of China's New Infrastructure Promotion

Field	Implementation Details
5G Base Station	- Network design and operating service - Base station equipment and parts (chips, cables, antennas, servers, etc.)
Big Data Center	- Network design and operating service - Base station equipment and parts (chips, cables, antennas, servers, etc.)
Big Data Center	- Equipment (servers), ICT solutions
Artificial Intelligence (AI)	- Network design and operating service - Base station equipment and parts (chips, cables, antennas, servers, etc.)
Industrial Internet	- Network design and operating service - Base station equipment and parts (chips, cables, antennas, servers, etc.)
Extra-High Voltage Transmission Networks	- DC/AC special high-voltage equipment (GIS, transformers, reactors, transformers, etc.) - Design and deployment
Charging Stations	- Charging station materials and parts (modified resin, SMC composite materials, cable materials, aluminum alloys, etc.)
High-Speed Rail and Rail Transportation	- Equipment (railroads, high-speed railways)

자료 : KOTRA (2021.12)

▲Source: Institute of Information, Communications, and Technology Planning and Evaluation. ICT Brief(No. 2022-21)▲

Table Main Contents of China's New Infrastructure Expansion Plan

Categories	Contents	Key Technologies	
Digital Infrastructure	Digital Workforce	Communication network	5G, IoT, industrial internet, satellite internet
		New technology infrastructure	AI, cloud computing, blockchain
		Computing power infrastructure	Data center, Smart computing center
	Convergence Infrastructure	New economy infrastructure	Smart transportation, Smart energy
		New social infrastructure	Smart education, Smart medicine
	Innovative Infrastructure	Major science and technology infrastructure	
Science education infrastructure			
Industrial technology innovation infrastructure			

자료 : 대외경제정책연구원 (2020.5) 재구성

▲Source: Institute of Information, Communications, and Technology Planning and Evaluation. ICT Brief(No.2022-21)▲

Singapore is also continuing to establish and promote policies related to digital infrastructure, such as announcing the R&D, Innovation, and Corporate Investment Plan(RIE) 2025, and promoting policies related to digital infrastructure, such as promoting R&D to promote the digital economy.

Field	Implementation Details
Digital Workforce	Strengthening digital education and securing ICT experts.
Digital Infrastructure	Gigabit Internet, 5G, semiconductors, Edge and the cloud computing, quantum computing
Digital Transformation of Business	Introduction of cloud computing, big data, and artificial intelligence of companies, digital transformation of small and medium enterprises, and promoting unicorn companies.
Digitalization of Public Services	Public services online, electronic healthcare, digital ID.

▲Source: Institute of Information, Communications, and Technology Planning and Evaluation. ICT Brief(No. 2022-21)▲

## Korea Emphasizes Spread of Digital Infrastructure as Part of Major National Policy

In the era of the fourth industrial revolution, the new government continues to express its willingness to intensively promote core technologies and industries such as artificial intelligence(AI), the metaverse, and software. In addition, with the goal of becoming one of the top five science and technology powerhouses through AI-based super-disparity and hyper-connectivity innovation, it is looking at energy and mobility, 6G technology, quantum cryptographic information and communication networks, and Northeast Asia's smart energy grid as major R&D fields. The leap into becoming a technology powerhouse through these policies is expected to be an important policy from an all-round perspective for the country, including not only the science and technology sector but also the economy sector.

In order to create a newly envisioned future as an ICT powerhouse, Korea needs to expand digital infrastructure in all directions to support the discovery and development of new industries based on existing ICT infrastructure(networks, etc.), and to strengthen digital infrastructure technology capabilities such as AI, cloud computing, blockchain, and 5G, and accelerate digital transformation. In addition, it is necessary to prepare laws and systems for the spread of digital infrastructure, create an institutional foundation such as regulatory innovation that removes obstacles to the creation of new industries, create new domains based on digital infrastructure, and expand digitalization of all industries. Through the establishment and implementation of a variety of policies, it is expected that the new government of the Republic of Korea will create a new wave through ICT policies.

## Reference

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- Institute of Information, Communications, and Technology Planning and Evaluation. ICT Brief (No. 2022-21). 

People in ICT

## Closer to the hospital, more comfortable for the patient! Meet Kim Joon-hyun, vice president of Lemon Healthcare.

Interview | Kim Jun-hyeon, Vice President of Lemon Healthcare Co., Ltd.



In 2019, COVID-19 suddenly began and spread over the whole world. Then, in February 2020, the first confirmed case occurred in Korea. Life changed rapidly, and we were protected with masks for three years, and access to a hospital was not free.

In line with this, Lemon Healthcare Co., Ltd. took responsibility for the health of patients in a more convenient way. It has contributed to creating a non-face-to-face medical environment.

For their swift response and support against COVID-19, Lemon Healthcare received a presidential commendation. Vice President Kim Jun-hyeon, who said, "I want to be someone's role model," and KCA met and had a meaningful time together.

**Q**

**Hello, Mr. Vice President. Could you please introduce yourself briefly?**

Hello, my name is Kim Jun-hyeon. I am vice president of Lemon Healthcare Co., Ltd. and I am in charge of the platform business(CSO) at Lemon Healthcare. I am in charge of overall external business areas such as market analysis, business expansion, new BM discovery, and expansion of affiliates.

**Q**

**What kind of business is Lemon Healthcare Co., Ltd. involved in?**

We provide and operate a LemonCare platform that allows hospitals and patients to make hospital appointments, pay simple medical expenses, issue electronic receipts, automatically send electronic prescriptions to pharmacies, and make medical insurance claims. With one mobile service, we can solve all face-to-face procedures that patients go through in hospitals other than medical treatment, including the entire process of receiving print copies.

Medical staff are provided with patient management, treatment and prescription, surgery schedule adjustment, and cooperation services through LemonCare Plus, a medical staff app linked to the hospital information system (HIS). In conclusion, ours is a company that realizes a non-face-to-face and paperless system in the medical market through our LemonCare platform.

**Q**

**What kind of business or technology are you currently working on?**

We are continuing the project of spreading the LemonCare platform to high-level and general hospitals in Korea. In addition, starting this year, we are expanding the services provided by the LemonCare platform to the small and medium-sized hospital and clinic market. We are in the process of linking KakaoPay and our main services in KakaoTalk, and through this, we will be able to provide various services to even small and medium-sized hospitals/clinics where service is difficult through a separate app. This will be accomplished through a channel that provides major services to patients, and services can be used without the hassle of patients having to install a separate app. So we can expect a rapid expansion in service.

Q

**What is Lemon Healthcare's most meaningful reward or achievement so far?**

At the recent Medical Device Day event, Korea's first Paperless Mobile Smart Hospital Platform was distributed and expanded(based on current contracts), securing a market share of about 73%(33 out of 45) of tertiary general hospitals, improving the non-face-to-face medical environment. We received a presidential commendation for contributing to the response to and support of COVID-19 by building and operating the Life Treatment Center Non-face-to-face Medical Service app. I think it is very meaningful because it is considered as an award for the hard work and passion of our employees.



Q

**I think there are many talented people who would like to join Lemon Healthcare, so do you have any tips to share?**

We welcome young people who are interested in the mobile environment, and who are passionate and curious about new technologies and services. It is good if they have coding skills because we do a lot of that,



using programming languages such as Java and PHP. We prefer these skills rather than special certificates. But even if you don't have these skills, if you're interested, you can still be able to join the company. There is training provided after joining the company to help new employees perform your work.



**What motivated you to get started in smart healthcare?**

I have been working in the IT field since 1998. In 2002, I got a job at a Japanese company and studied IT-related technology professionally for six years before moving to a small and medium-sized IT company, where I encountered medical business for the first time.

At that time, I felt that the medical environment was developing slower than other industries and decided that this could be an opportunity to occupy the market. So I entered the hospital mobile platform market in earnest with our CEO in 2016. Now, we are leading in and expanding the domestic medical market.



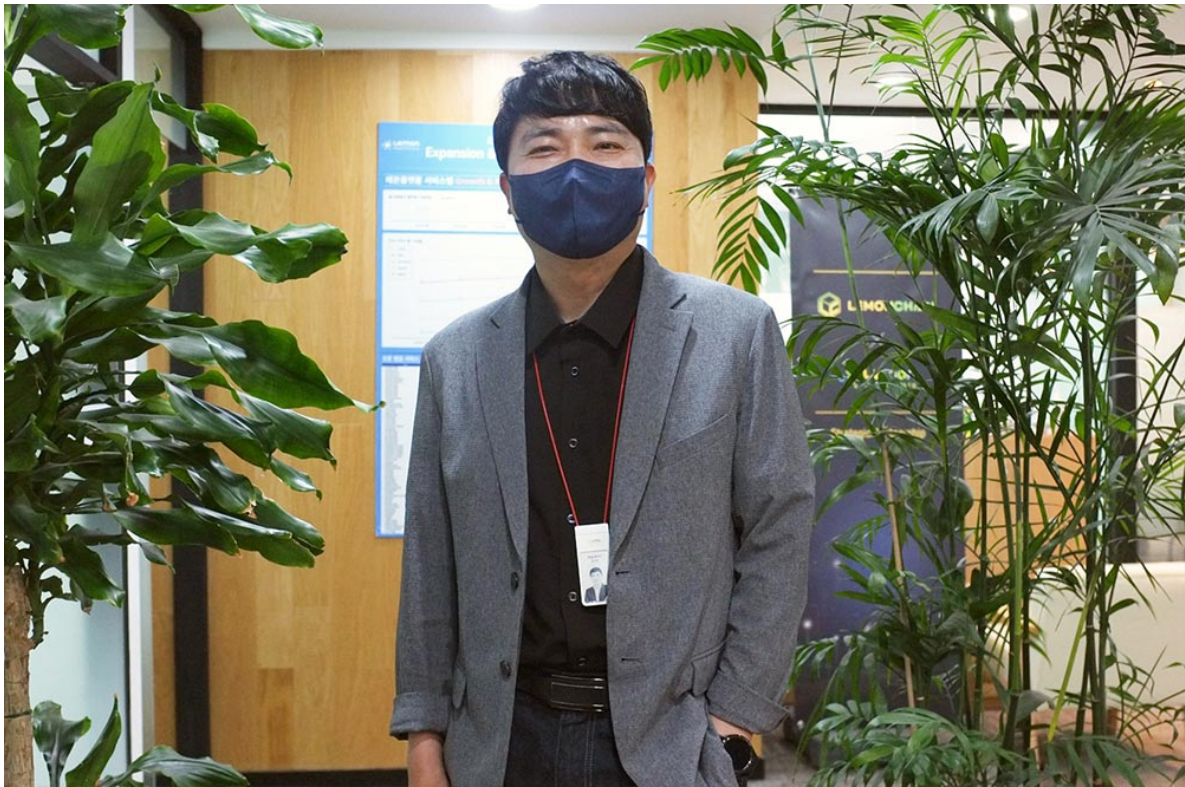
**There are a lot of people who are different from when they are at work and away from work. What about you?**

Actually, I'm meticulous, so I can seem boring to people at work. MBTI[Myers-Briggs Type Indicator] is popular these days. Many people think I'm an 'E'[extraversion], but I come out as an 'I'[introversion]. That's why I'm clumsy outside the workplace. I'm usually not interested in things that aren't important to me, and I'm a bit sloppy outside.



**What do you think about the social life of the so-called MZ generation [Millennials and Generation Z], children these days?**

I'm actually learning a lot. Since I have lived in a different environment, I try to learn rather than teach. Parents say, "Talk at the child's eye level", but they don't say, "Children talk at the parent's eye level", and the workplace is the same. If your boss is an adult and your young friend is a child, I think you have to learn on your own to match them.



### **What are your future goals and resolutions?**

The healthcare market is drawing a lot of attention these days. In the United States and Europe, short-term services such as telemedicine and drug delivery alone are valued at trillions of won. From medical appointments to mobile payments, electronic prescriptions, and claims for medical insurance, we are working with the actual medical field to provide A-to-Z comprehensive health-related services and to improve them. Rather than having someone as our role model, we are determined to be someone's role model.

Personally, I want to remain healthy until our company's platform becomes someone's role model. And after I accomplish that, I want to spread my experience to my juniors.



**Is there anything you would like to say to our webzine readers through this interview?**

There is an old saying, "In ten years, the mountains change." ICT is changing so fast that the world seems to change every two to three years. In my experience, I have missed out on a lot of things around me while focussing on my main job to respond to the rapidly changing environment.

As a result, I have been able to discover that people got hurted and organizations arise without me being aware. Even if you focus on your main job, you have to make time to look around yourself once in a while. And you need to develop for yourself the habit of contacting family, colleagues, and acquaintances. Moreover, you will feel more relaxed. I realized this when I received the proverbial Mandate of Heaven[e.g., at age 50].(laughs)

ZOOM IN - I

# Dreaming of Autonomous Driving of Finance with AI

AIZEN GLOBAL CO., LTD. CEO Kang Jung-seok



AIZEN GLOBAL CO., LTD.

## General Status

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- **Implementing Agency**  
National IT Industry Promotion Agency
- **Business Details**  
Building up intelligent information industry infrastructure

## Company Status

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- **CEO**  
Kang Jung-seok
- **Business Type**  
Software development and supply
- **Year of Establishment**  
2016. 02.
- **Homepage**  
<https://aizenglobal.com/>

## ☑ Key Accomplishments

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Achieved a financial AI innovation through the development and supply of finance-specializing machine learning automation solution "ABACUS" (Woori Bank, Woori Card, Hyundai Card, Samsung Fire and Marine Insurance, Nonghyup Life Insurance).

Data economy activation through development and service offering of CreditConnect, a banking service linking data platform and financial institutions.

Successful in financial infrastructure service exports with credit (loans) supply targeting data economy firms in Vietnam and Indonesia through CreditConnect.

## Credit Offering and Data Economy Activation That is Beneficial to All

Aizen Global provides a Banking as a Service(BaaS) model invigorating credit by offering credit(loans) to areas where data is created including shopping, mobility, education, e-wallet, and medical service by connecting data economy firms with financial companies based on finance-specializing AI technology. Through a core technology converting non-financial data into credit information that can be used in the financial/banking sector, Aizen Global is providing extendable finance/ banking to industrial areas such as e-commerce, mobility, electric batteries, and sharing economy in Korea, Vietnam, and Indonesia.

By developing AI financial service for smooth credit supply through data convergence between industries and AI and concentrating credit offering on rapidly changing data platform firms, Aizen Global enables AI-based credit process automation and financial autonomous driving. As such, the company is carrying out credit offering and data economy invigoration beneficial to all data platform, Fintech, and conventional financial institutions.

## Achieving Financial Digital Transformation through AI



The image features a central graphic with the text "Credit Connect" and "Powered by ABACUS" in a glowing, futuristic font. Surrounding this central text are various financial and technological icons, including a padlock, a cloud with a downward arrow, a shopping cart, a document with a checkmark, a large dollar sign, a bar chart, a house, a pound sterling symbol (£), and a Euro symbol (€). The background is a dark blue gradient with a subtle grid pattern.

# AI Technology Platform for Digital Financial Services

**AI ZEN** **CreditConnect**  
Powered by ABACUS

Aizen Global's major technologies and services are divided into two categories: first is the financial AI solution ABACUS, which has automated all processes ranging from financial big data and infrastructure-based high-speed processing of massive amounts of data to AI modeling and AI model distribution. Financial companies that adopted Abacus consisting of API in terms of all functions have successfully carried out digital transformation through AI such as banks' screening, digital strategies, FDS of credit card firms, and insurance claim attributes classification.



## Core Technology for AI Banking Services



**CreditConnect**

Powered by ABACUS

Second is the ABACUS-based AI banking service CreditConnect, an automated banking service automating all credit cycle processes through AI decision making to supply credit to nonfinancial companies. Aizen Global offers the financial services of e-commerce sellers of the 45 largest shopping malls in Korea as well as financial services along with Vietnamese banks and connects data platform and financial institutions.

In overseas markets, Aizen Global forged partnerships with 100 data economy platform partners within 8 months of its entry into Vietnam in December 2020, and it is focusing on forming potential partnership in Indonesia. With proven matchless AI technological capabilities and global competitiveness in the financial sector such as winning awards abroad, Aizen Global is expanding its influence on overall Asian markets by offering financial services required for data economy firms in the Vietnamese and Indonesian markets.

## **New Business Applying AI Solution**

Aizen Global participated in the AI voucher support project organized by NIPA, and it has been supplying AI solutions and model development services to eight companies requiring AI service application and digital transformation.

Concretely, the company constructed a small business online sellers' asset evaluation model using AI technology in the e-commerce area. Targeting the online small businesses experiencing difficulties in business operation with different payment cycles and sales conditions per e-commerce shopping mall, Aizen Global has constructed a sophisticated asset evaluation model on trade receivables and goods and has contributed to financial service offering worth over KRW 300 billion annually.

Aizen Global could create a new business opportunity through expertise built up by performing various AI solution adoption projects with financial and public institutions and the ICT Fund project. Especially the company could expand financial services through which online small businesses can persistently operate and expand businesses by offering pre- payment service on trade receivables and goods of online small businesses using AI technology in the e-commerce area.

## **Exporting Financial Model Through AI Technological Capabilities and Professionalism**


Aizen Global wants to expand its provision of AI financial services to Southeast Asia based on advanced AI solution through the ICT Fund project. The company plans to offer banking service to various non-financial industries that are rapidly growing and establish local partnerships.

The company is determined to expand the exporting model connecting local firms and financial institutions through the AI banking service CreditConnect in the Southeast Asian market including Vietnam, Indonesia, and Thailand where financial service can develop. The bright future of Aizen Global,

which can continue exports and financial innovation through AI financial service models and achieve export goals with solution licensing, is expected. The CEO of Aizen Global disclosed the company's ambition of creating an advanced model to export a technology-based financial model by nurturing Korea's excellent AI financial manpower.



# TIME LINE

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- 2016. ~ 2017.**

Established Aizen Global Co., Ltd. Received the Science ICT, and Future Planning Minister's Prize at the Multimedia Technology Awards
  - 2018.**

Selected as a first designated agent of the Financial Supervisory Commission

Selected as a Gartner AI Cool Vendor in the Fintech category
  - 2019.**

Hyundai Card and Woori Card adopted deep learning FDS Automation of financial credit map and AI modeling automation based on Korea Credit Information Services' CreDB a
  - 2020.**

Ranked 2nd in the MAS Fintech Award global category by the Monetary Authority of Singapore

Korea Social Security Information Service adopted the illegal voucher 4receipt-detecting AI solution
  - 2021.**

Launched the CreditConnect service

Selected as one of the MAS Verities Challenge Top 10 by the Monetary Authority of Singapore
  - 2022.**

Prime Minister's Commendation in commemoration of the Science, Information, and Communication Day

Applied AI banking service based on the data of the 45 largest e-commerce online businesses in Korea

ZOOM IN - II

# Military Medical Environment Becoming Smarter through the AI Reading Assistance System

LUNIT, INC. CEO Suh Beom-seok



LUNIT, INC.

## General Status

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- **Implementing Agency**  
National IT Industry Promotion Agency
- **Business Details**  
AI fusion medical imaging diagnosis and reading system

## Company Status

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- **CEO**  
Suh Beom-seok
- **Business Type**  
Software development and supply
- **Year of Establishment**  
2013. 08.
- **Homepage**  
<https://www.lunit.io/ko>

## ☑ Key Accomplishments

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The only one from Korea selected for the CB Insite world's top 100 AI companies.

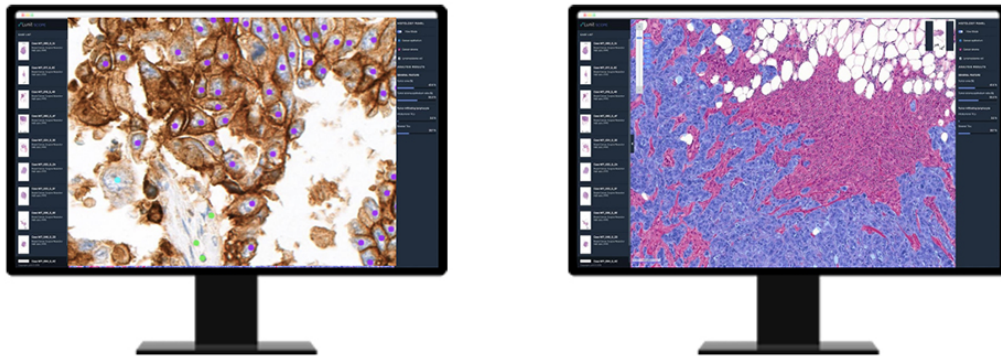
Chosen as the only Davos Forum Technology Pioneer in Korea.

Achieved commercial sales to approximately 350 medical institutions in some 40 countries worldwide.

## Leading AI Medical Reading Assistance System of Medical Environment Smartization

The importance of lung disease care is increasing due to the recent COVID-19 pandemic. It is very important to detect, treat, and prevent early for military units vulnerable to infections due to group life. Lunit's AI convergence medical image diagnosing and reading assistance system is expected to play a pivotal role in military medical environment smartization and treatment efficiency and service improvement.

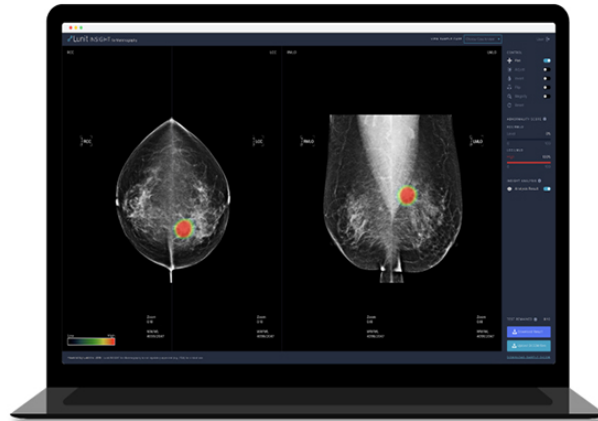
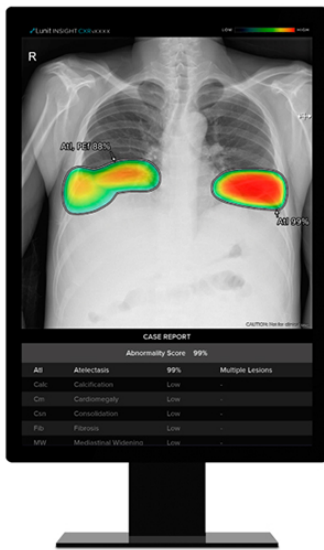
Lunit, Inc. has participated in the medical imaging reading solution project for the AI-based smart defense medical system through the ICT Fund project since 2020. This year, Lunit is developing and demonstrating the AI reading assistance system in the chest X-ray and fracture area suitable for the military medical environment by forming a consortium with Basgen Bio.



Lunit has positioned itself as a first-generation global medical AI company. It has developed and commercialized the following products: Lunit Insight, an early cancer detection and disease risk development prediction product by applying deep learning technology in the medical image examination as AI healthcare; and Lunit Scope, a product supporting anticancer treatment decision by applying deep learning technology to the digital tissue pathology slides.

## **AI Solution Targeting Military Medical Institutions**

Lunit Insight AI products are those reflecting differentiated AI technology and medical expertise. Lunit has made efforts so that these products can offer good-quality medical services by being recognized as important means for medical personnel's quick and accurate diagnosis.



Last year, Lunit demonstrated outstanding business performance in all evaluation categories including performance evaluation, field medical personnel's satisfaction survey, and business management by supplying Lunit Insight CXR to 13 military medical institutions such as Korean Armed Forces Capital Hospital and Medical Corps of Yeonpyeong Unit. Based on this, Lunit plans to participate vigorously in AI solutions expansion targeting all military hospitals and medical institutions starting this year.

The company considers the following to be its biggest achievements: letting the military medical institutions and government institutions know about the AI reading assistance system's value through the ICT Fund project; and its products being recognized as they are applied to diverse clinical environments. As Lunit performs the ICT Fund project covering various firms' business scope, opportunities to collaborate with diverse organizations and human resources within companies by business arose, and in-depth understanding of mutual work within an organization was an important outcome.

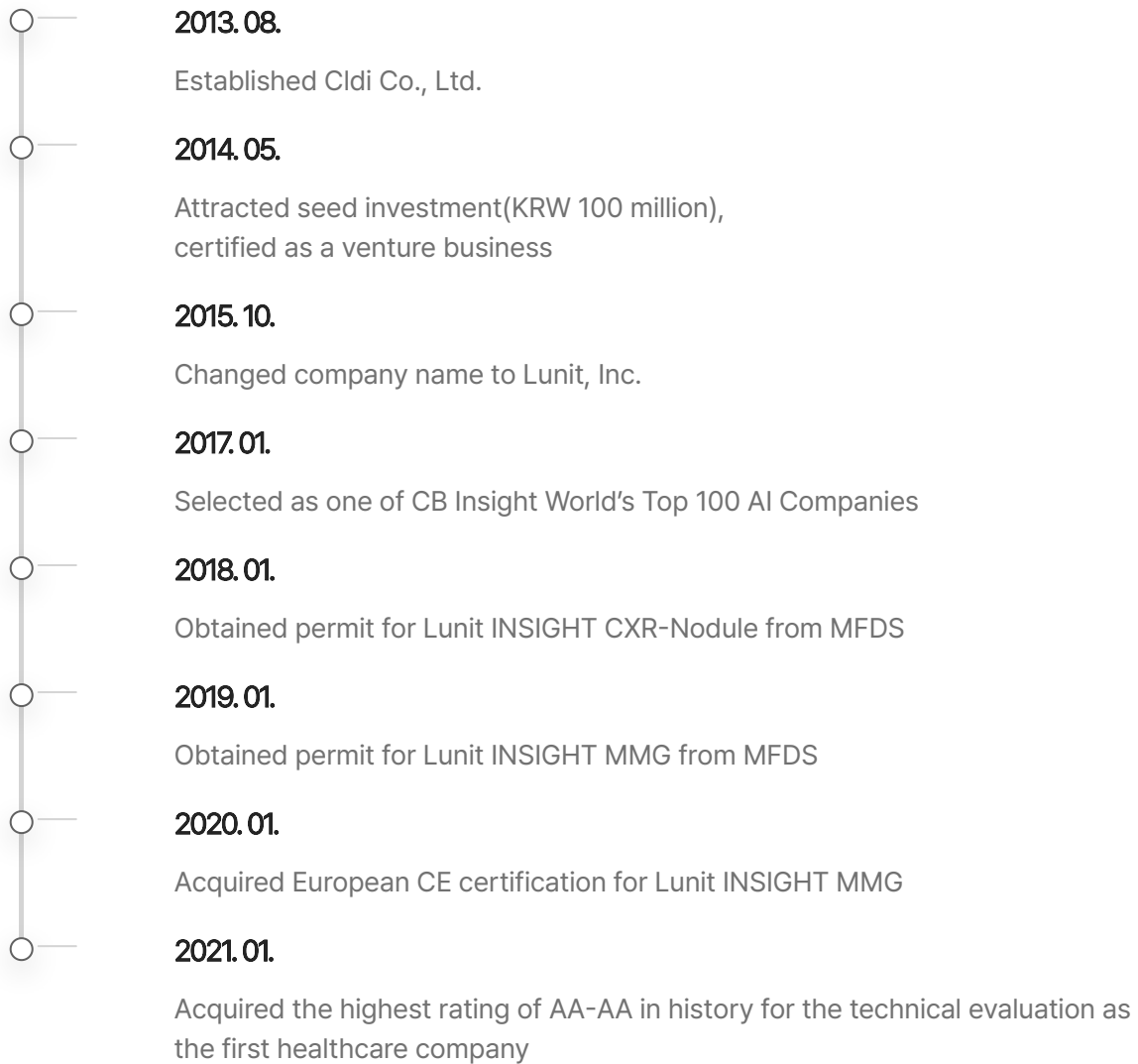
## Contributing to Medical Technology Development with the Customized AI System

A source of Lunit said, "We are very happy, because our authenticity and efforts to be of help in military medical environment quality improvement following our selection as a company with outstanding performance seem to be recognized. We will endeavor to grow and develop into a more reliable firm offering useful AI software to practical users as well as for excellent performance creation through the ICT Fund project."

Lunit saw that military medical dead zones can be resolved quickly and accurately if the ICT Fund project achievement-based advanced AI technology is combined with high-quality big data, and that equal medical service can be realized. The company is also taking on the challenge of conquering cancer using AI. The ultimate goal is saving many lives by making contributions to medical technology development. Lunit is currently striving for the development, diffusion, and spread of products that can diagnose pathological tissues and predict immune-oncology treatment as well as imaging diagnosis.

An official of Lunit said, "We will spread and diffuse AI medical service to military medical institutions abroad by demonstrating the military-customized AI system and constructing a stable use system. We hope latecomers participate in the ICT Fund project to contribute to society and all industries through good linkage with the public interest value of the ICT Fund project and the company goals."

# TIME LINE

- 
- 2013. 08.**  
Established Cldi Co., Ltd.
  - 2014. 05.**  
Attracted seed investment(KRW 100 million),  
certified as a venture business
  - 2015. 10.**  
Changed company name to Lunit, Inc.
  - 2017. 01.**  
Selected as one of CB Insight World's Top 100 AI Companies
  - 2018. 01.**  
Obtained permit for Lunit INSIGHT CXR-Nodule from MFDS
  - 2019. 01.**  
Obtained permit for Lunit INSIGHT MMG from MFDS
  - 2020. 01.**  
Acquired European CE certification for Lunit INSIGHT MMG
  - 2021. 01.**  
Acquired the highest rating of AA-AA in history for the technical evaluation as  
the first healthcare company

ZOOM IN - III

# Leading Green Growth with Carbon Neutrality Analysis Big Data Platform

ECOEYE CO., LTD. CEO Lee Su-bok



ECOEYE CO., LTD.

## General Status

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- **Implementing Agency**  
National Information Society Agency
- **Business Details**  
Construction of big data platform and network

## Company Status

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- **CEO**  
Lee Su-bok
- **Business Type**  
Academic research service, environment- related engineering service, software development and supply
- **Year of Establishment**  
2003. 08.
- **Homepage**  
<http://ecoeye.com/>



## ☑ Key Accomplishments

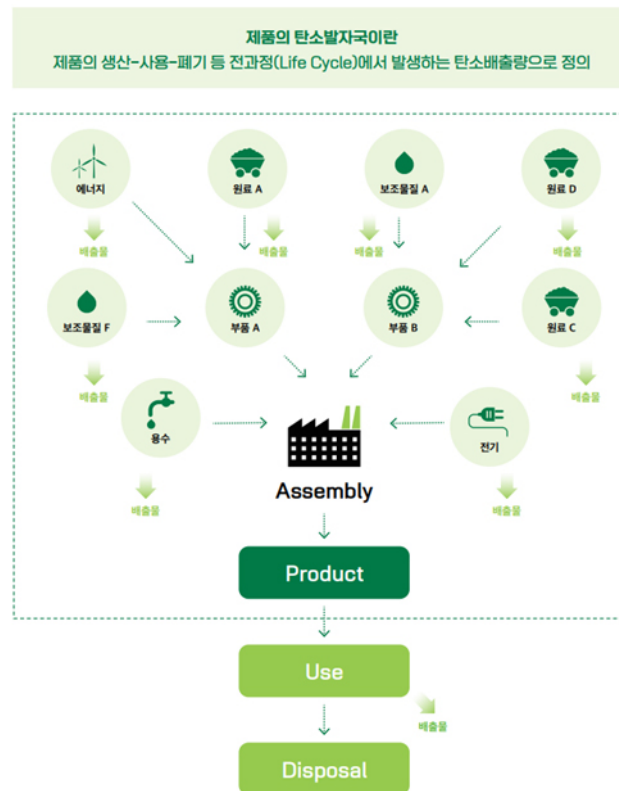
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Constructed a network close with carbon neutrality government, local governments, and companies and high recognition.

Domestic and foreign No. 1 certified emission reduction(CER) development and supply, providing high-quality carbon neutrality data service.

Acquired ISO 14067 certificate to develop Korea's first consumer product purchase carbon footprint DB and enhance international-level reliability.

## Big Data Company Leading Green Growth



Established in 2003, Ecoeye Co., Ltd. is a climate change and greenhouse gas consulting firm analyzing greenhouse gas characteristics and calculating amount-based carbon footprints and accumulating with big data when consumers purchase products. The company has been providing precise data to public institutions or financial institutions.

From the National 2050 Carbon Neutrality Declaration until 2030, Ecoeye is playing a pivotal role in promoting the interests of public institutions, companies, and financial institutions according to the enforcement of the Carbon Neutrality and Green Growth Framework Act in line with the trend of sharply reducing greenhouse gas emissions.

## **Taking up 46% of the Korean Market by Discovering and Securing Active CER Business**

The major business area of Ecoeye includes discovering and securing domestic and foreign CERs, CER brokerage, carbon assets management, and carbon-neutral area platform construction and operation. In the area of discovering and securing CER as the most important area, Ecoeye is accomplishing good performance through the development and operation of some 150 reduction businesses including domestic and foreign CDM business.

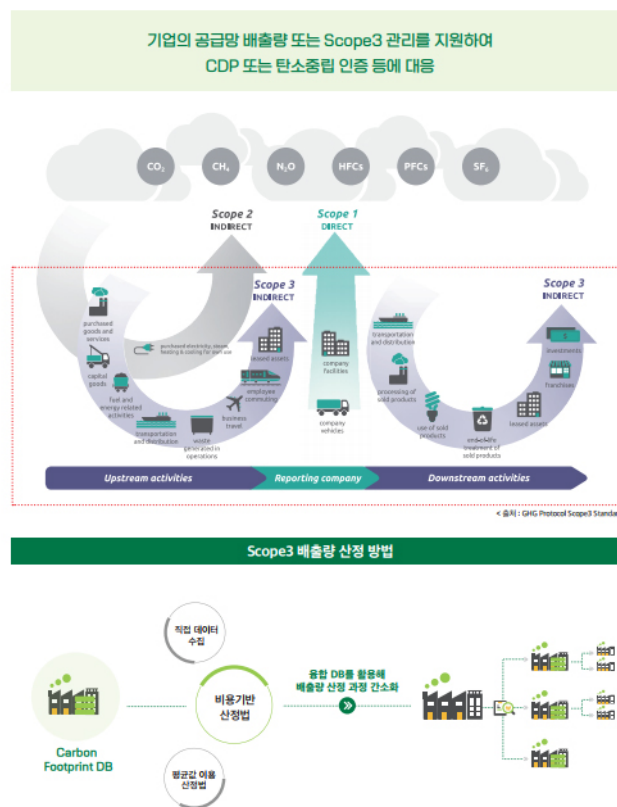
A carbon market analysis platform is a source of pride of Ecoeye. Ecoeye started the carbon market analysis platform (Carbon-i) for the first time ever in Korea following its establishment, and it has been providing CER information to approximately 50 institutions and companies such as trends and policy issues of the carbon market. The company is propelling risk management service nowadays through carbon asset management targeting CER-allocated firms.

In addition, Ecoeye analyzes customized and detailed greenhouse gas emissions characteristics by analyzing the urban area's forests, buildings, and transportation and creates an amount-based consumers' product purchasing carbon footprints database. This means completing third-party

verification corresponding to international-level protocol, and Ecoeye acquired ISO 14067, an international standard for carbon footprints.

## Adopted as a Carbon Neutrality State Project, Gains an Opportunity for Corporate Growth

Carbon neutrality is emerging as a global environmental and economic issue. The market is getting reorganized that not only the companies emitting lots of greenhouse gases, but also the government or financial institutions supporting them can survive only when they practice carbon neutrality directly/indirectly.



With carbon neutrality adopted as a state project, the role of Ecoeye is expanding. Ecoeye is a major company accounting for 46% of the Korean CER trading market and is equipped with the capability to respond to climate change and expertise. Offering customized data service targeting various stakeholders related to the carbon neutrality issue can be Ecoeye's major source of competitiveness.

Ecoeye is showing excellent competitiveness in offering CER market information service, data-based platform construction, and business model discovery, so the company is leading domestic carbon neutrality.

## Turning Point of Corporate Growth with ICT Fund

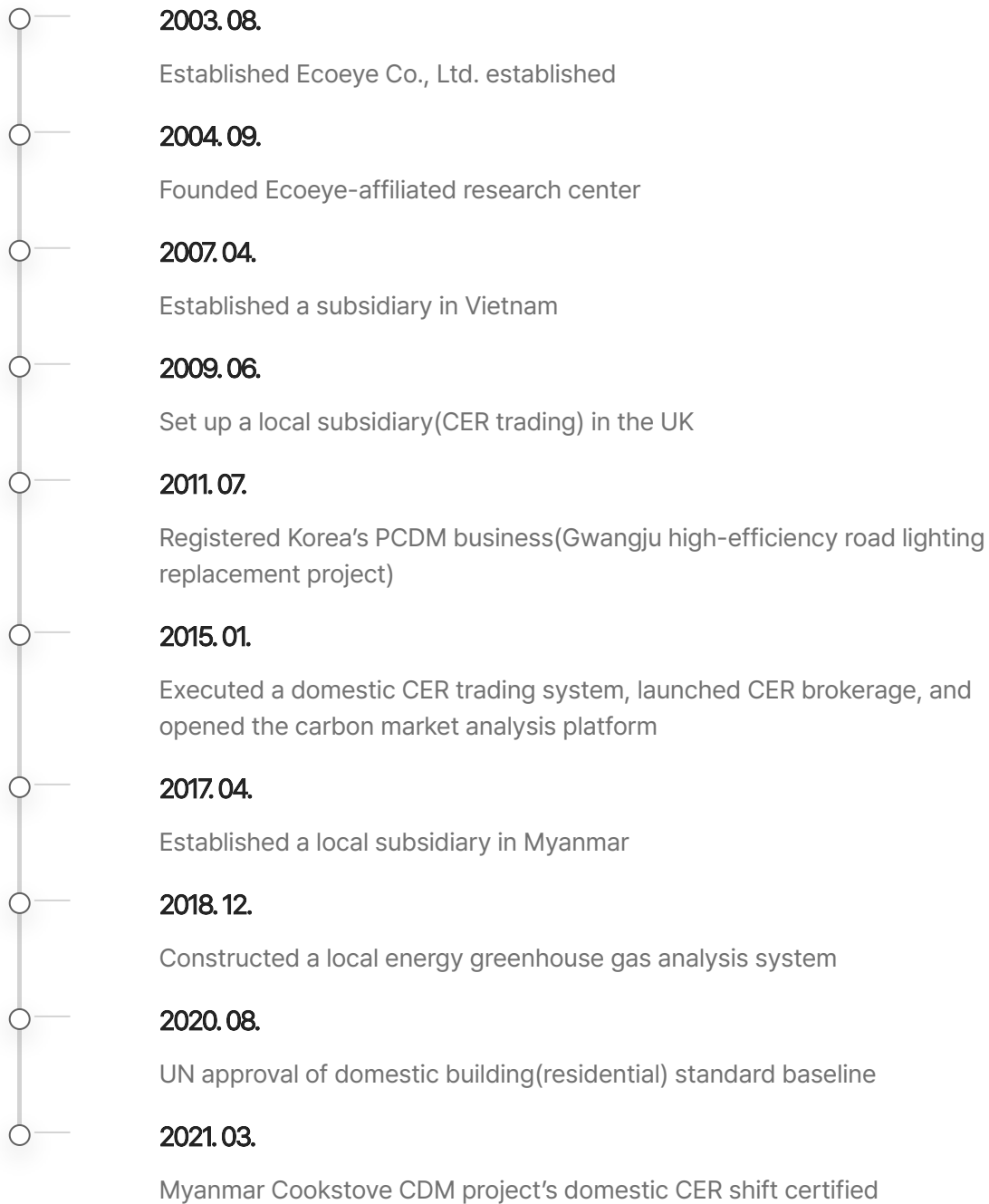
As a leading company in the Korean carbon emission market, Ecoeye started to achieve remarkable corporate growth as the company participated as the carbon-neutral center of the ICT Fund big data platform construction project in 2021.

Ecoeye was widely recognized domestically and internationally as a climate change and greenhouse gas consulting company but had some difficulties in business area expansion as a data business because it was not an IT company. By participating in the ICT Fund project, however, Ecoeye could support forest big data platform PR activities and learn stable data business operation know-how. Through climate change and greenhouse gas consulting, the company could gradually reduce the trial and error of data service.

Ecoeye developed a carbon footprint database generated in all articles of consumption based on the Input-Output Table released by the Bank of Korea for the first time in Korea and acquired ISO 14067 certification corresponding to the international level. Ecoeye bagged the paid Gwangju win-win card project despite the short period of time of six months and calculated carbon footprints based on the expenditure details data.

Likewise, Ecoeye is contributing significantly to the promotion of carbon emissions reduction recognition as a company that successfully finished consumer demonstration- application research. Ecoeye plans to provide accurate domestic and foreign greenhouse gas data to its customers by sincerely performing this year the big data center construction project that it started last year.

# TIME LINE

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- 2003. 08.**  
Established Ecoeye Co., Ltd. established
  - 2004. 09.**  
Founded Ecoeye-affiliated research center
  - 2007. 04.**  
Established a subsidiary in Vietnam
  - 2009. 06.**  
Set up a local subsidiary(CER trading) in the UK
  - 2011. 07.**  
Registered Korea's PCDM business(Gwangju high-efficiency road lighting replacement project)
  - 2015. 01.**  
Executed a domestic CER trading system, launched CER brokerage, and opened the carbon market analysis platform
  - 2017. 04.**  
Established a local subsidiary in Myanmar
  - 2018. 12.**  
Constructed a local energy greenhouse gas analysis system
  - 2020. 08.**  
UN approval of domestic building(residential) standard baseline
  - 2021. 03.**  
Myanmar Cookstove CDM project's domestic CER shift certified

ZOOM IN - IV

# Leading the Korean AI Market through Success in Commercialization with the ICT Fund Support

SURROMIND CO., LTD. CEO Jang Ha-young



SURROMIND CO., LTD.

## General Status

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- **Implementing Agency**  
National IT Industry Promotion Agency
- **Business Details**  
Building up intelligent information industry infrastructure

## Company Status

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- **CEO**  
Jang Ha-young
- **Business Type**  
Application software development & supply, and other engineering R&D
- **Year of Establishment**  
2011. 07. 04
- **Homepage**  
<http://www.surromind.ai/>

## ☑ Key Accomplishments

Reduction of adoption cost through solution and service development using AutoML platform.

Operation cost reduction through AI operation using MLOps platform.

Providing image, language, sensor, data-based customized solutions per business area.

## Development of Industrial Site-customized AI Solutions

Surromind Co., Ltd. provides easier, faster, and more accurate AI solutions. Starting with Surromind Robotics in 2015, it changed the company name to the current Surromind Co., Ltd. Surromind has won many awards in numerous domestic and international competitions in the deep learning sector for image, noise, and vibration data processing through core technology development.



Surromind is recognized as a firm with top level AI technological capabilities in Korea.

Surromind is leading the market by enhancing AI technology efficiency through development of Auto ML and MLOPs technologies first as an industry- customized cutting-edge AI solution provider. The AutoML and MLOPs solutions developed by Surromind are technologies maximizing AI efficiency, and they are mainly used in the AI model development process. The solutions exert very excellent effects in the defect inspection and predictive maintenance. If the noise and vibration data of images are input, product's defect is judged, and also abnormal sign of equipment is accurately detected. The AutoML solution is an installation type solution, and it is sold exclusively through cloud companies from this year.

## **Corporate Growth is Expected with Huge Expansion of the AI Market**

The growth possibility of Surromind whose cutting- edge technological capabilities are recognized is very high. According to a global IT industry research company Gartner, the global AI market is predicted to show a steep growth of over 15% for five years to come. The AI development and operation solution market is forecast to grow over 25%.

However, Korean AI-adopted companies take up just 3.6%. Nonetheless, Surromind plans to develop solutions to solve difficult problems of their corporate clients, and the company is confident that the Korean companies' AI adoption ratio will gradually increase.

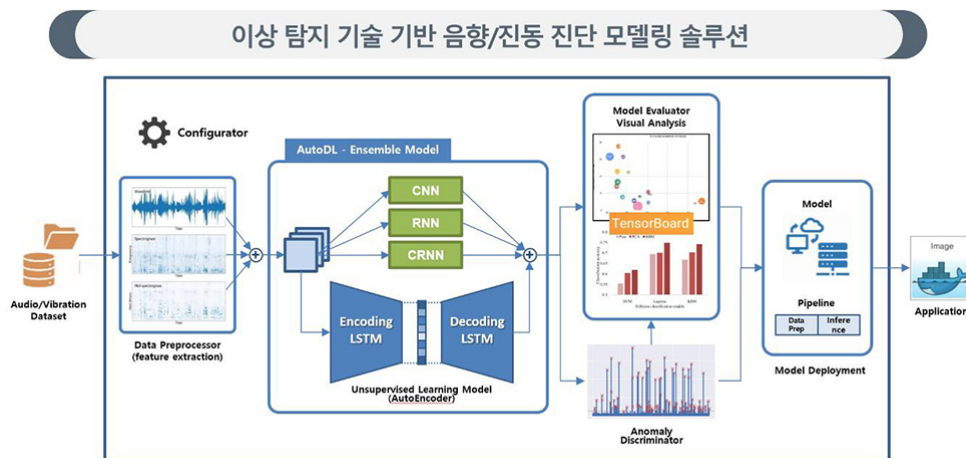
The reason why Surromind is confident in the Korean market is that the company has outstanding R&D capabilities and business experiences related to AI. Surromind has experiences of presenting nine papers at the world's most prestigious AI Society and of performing numerous state projects. More than theoretic achievements, Surromind is also building up actual achievements in industrial sites including supplying solutions to KT Cloud through partnership with Hyundai / Kia Motors Technology Research Institutes.



## Sales Rose 127% after Participating in the ICT Fund Project

Surromind participated in the ICT Fund project by partaking in the 2021 AI Online Competition, and won the competition. Surromind took part in the competition, while the company was focusing on the collection and research of noise and vibration data in which the auto industry's interest is high.

Despite high technological capabilities, prototype development was delayed due to various reasons. As Surromind started to receive ICT Fund support of the NIPA, the company could start product development in full swing. Through the ICT Fund Support project, the achievement of Surromind is that cutting-edge technology existing only in theory was commercialized.



Surromind was able to achieve a 127% sales increase by developing a noise and vibration-based machine diagnosis modeling solution to which an abnormality detection technology was applied during the project period. As Surromind presented the technology and paper at an AI international society, the company remarkably achieved one domestic patent registration and two software registrations. Aside from that, Surromind was awarded a CEO prize at the Fourth Industrial Revolution Festival, and submitted a technology to 2021 Korea Industrial Technology R&D Competition. In this way, the company could perform vigorous corporate activities.

## **Steady Growth Continues Thanks to Proper Benefits from ICT**

The reason why Surromind was able to achieve great results was because of the the ICT Fund. Although product development is completed, the proper fund support for SMBs can be a more important issue than technology development, due to commercialization or securing sales route. Under these circumstances, fast commercialization through the ICT Fund after completing technology development can be the biggest factor for successful entry into the market.

Surromind foresees that demand for AI development and operation efficiency will be higher, as the AI market expands, and so the company plans to accelerate good quality solution development for corporate organization's digital transformation, agility, recovery elasticity, and efficiency. The goal of Surromind is to grow into a company that leads the Korean AI industry's popularization by utilizing AI in real time.

# TIME LINE

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- 2015.07.**  
Surromind Robotics established
  - 2016.12.**  
Selected as an NVIDIA Inception Program in 2017
  - 2020.06.**  
Changed company name to Surromind Co., Ltd.
  - 2021.08.**  
Launched Surromind AI Studio
  - 2021.09.**  
Won the AI Competition(Received Science and ICT Minister's Prize)
  - 2021.11.**  
Won the AI Championship(Awarded the SMEs and Startups Minister's Prize)  
  
Big-time Star Troubleshooter Platform 2  
(Won the SMEs and Startups Minister's Prize)
  - 2021.12.**  
Selected as a 2021 AI Voucher Excellent Supplie
  - 2022.01.**  
Selected as one of the top 100 AI startups in 2022