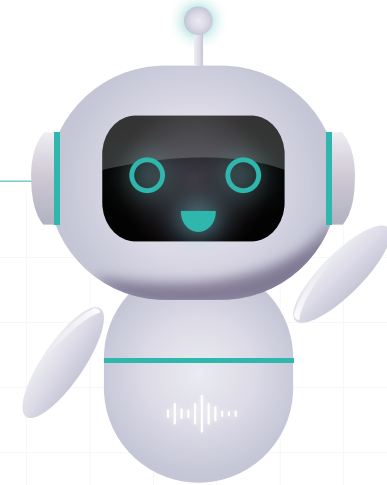


# OUR FOCUS STRATEGY

# •Ask **Mi:dm,** **Hyperscale AI**

- The Hyperscale AI Mi:dm?

AI to understand, remember, empathize,  
and express the thoughts and feelings of customers.



**Hi. Nice to meet you!**  
**I'm AI.**

Thank you for viewing  
KT's 2023 ESG Report!

In OUR FOCUS STRATEGY, you'll learn  
more about how we're managing our  
core issues for the year and what kinds  
of related activities there are.

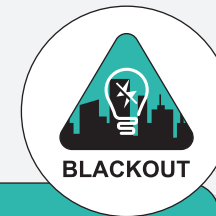
If you have any questions, please feel  
free to ask.  
I'll try my best to find the answers you  
need!

Now, why don't you join me and check  
out KT's ESG activities?

# #1 Stabilizing the Communication Network



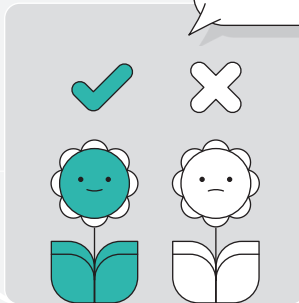
What if there's a communication failure?  
I need to make an important call!



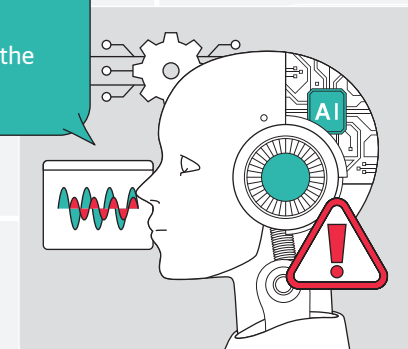
Don't worry, KT is always on standby for any communication disruptions! Whether it's a power outage, fire, or DDoS attack, we have established the systems and solutions to respond appropriately to any situation. Rest assured that KT will always have the ability to handle emergency situations.



I heard that KT's network quality management is special.  
I'm curious to know what kind of activities are involved!



KT utilizes AI actively to reduce human error and shorten performance time, and its own intelligent solutions predict network failures and provide root cause analysis and measures in the event of a failure. Remember, KT is constantly improving its network quality to provide the best service to its customers!



Ask Mi:dm, Hyperscale AI



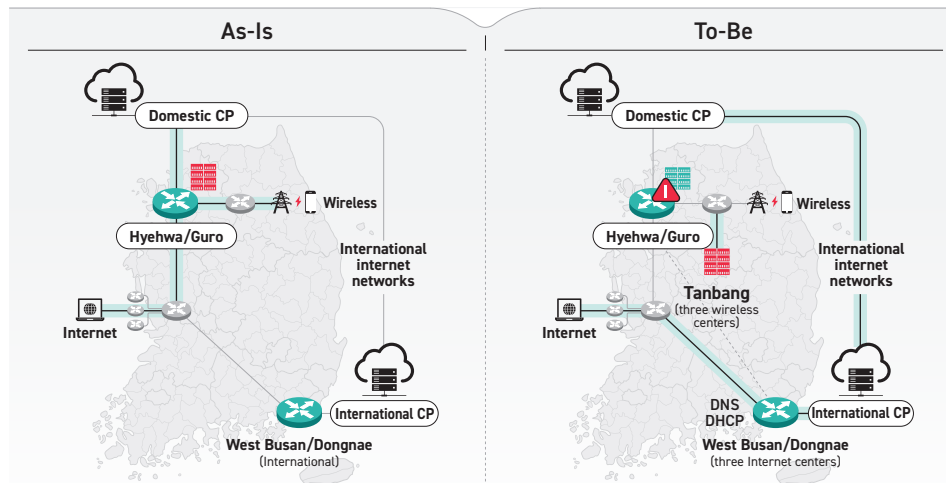
send

## Stable Network Operation

### Improvements to the Network Structure

In order to provide the highest level of communication services to our customers, we are implementing measures to strengthen network stability and ensure survivability of our networks. In order to provide customers with uninterrupted communication services even in the event of a disaster in the Seoul metropolitan area, we are building three wired and wireless centers in non-metropolitan areas. These three Internet centers will secure a bypass route through the Busan Center(West Busan/Dongnae), and the construction of a disaster recovery system for platforms such as DNS\*/DHCP\* will be completed by 2023 to strengthen the stability of Internet services, which are essential to the people's lives. We plan to relocate 5G/LTE core equipment for three wireless centers to Daejeon(Tanbang) and increase capacity to ensure the survivability of basic services such as data, voice and messaging for wireless subscribers. We plan to improve the network structure by 2025 and provide uninterrupted wireless Internet services even in the event of physical and logical Internet failures by separating wired and wireless Internet networks. We will introduce thorough measures to prevent large-scale telecommunications network failures so that we can provide the best possible telecommunications services for the people.

Improvements to the Telecommunication Network Structure



\* DNS(Domain Name System) : A system that allows you to translate domain names into IP addresses  
 \* DHCP(Dynamic Host Configuration Protocol) : A protocol that provides an IP address to a terminal

### Telecommunications Disaster Response System

KT operates a company-wide crisis response system(Disaster Countermeasures Headquarters, Crisis Management Committee, 10 working groups, Situation Room, Onsite Rehabilitation Team, etc.) in order to prevent communication failures and address large-scale communication disasters that require a company-wide response. In the event of a crisis, the Crisis Management Committee discusses whether to activate the company-wide Disaster Countermeasure Headquarters, which is responsible for coordinating an organic, company-wide response once the decision is made. In addition, we strive to minimize the damage caused by disasters through continuous improvement and disaster management activities, such as carrying out periodic proactive inspections, securing bypass communication routes, and operating a 24-hour emergency duty system, and collaborate with the Ministry of Science and ICT, major telecom operators, and related organizations to improve network stability.

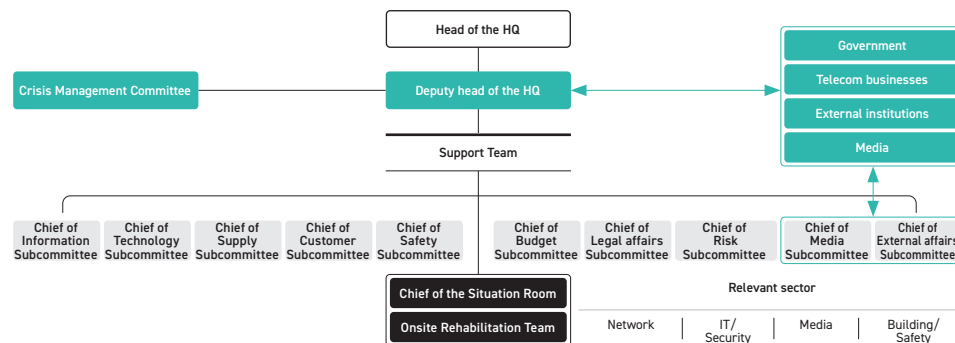
Furthermore, KT designates and manages telecom buildings as critical telecommunication facilities to prevent telecommunication disasters, and periodically inspects their safety management status. We have completed the dualization of power supply for key stations, installed CCTVs to control the access of outsiders and manage security, established firefighting facilities for all cable tunnels, and implemented remote control by introducing a cable tunnel management system(CATM). Furthermore, we have secured qualified personnel to conduct regular and precise safety inspections in accordance with the minimum maintenance standards. OSP facilities(telecommunication poles, manholes, etc.) are continuously improved in sections where there is a risk of safety accidents due to cracks, breakage, tilting, and extraction of road surfaces to ensure on-site safety. For telecommunication facilities, we have built a duplex/dualized system linking major communication equipment to enhance the stability of the communication network, and the works on the equipment are controlled and managed from start to finish in the order of preliminary preparation, work execution, and monitoring through the work management system. In particular, in the IP field, we supplement work procedures with virtual router simulation before starting work, apply a simulation test system to prevent work errors, and expand functions such as the function to limit the number of routing redistributions to minimize the impact on communication services caused by errors to prevent the spread of errors.

We update manuals related to telecommunications disasters on a regular basis, conduct mock drills for each type of disaster to improve our crisis response capabilities, and manage traffic to ensure that services are not disrupted. In the event of a disaster, we respond effectively by establishing a disaster roaming system through cooperation among telecommunications companies. We have also developed a feature that allows customers of other telecom companies to use KT's disaster Wi-Fi service immediately. To prevent damages from small businesses not being able to process card payments, etc., due to failures of the wired network, we have also developed a feature that enables smartphone USB tethering through Wi-Fi routers.



## Stable Network Operation

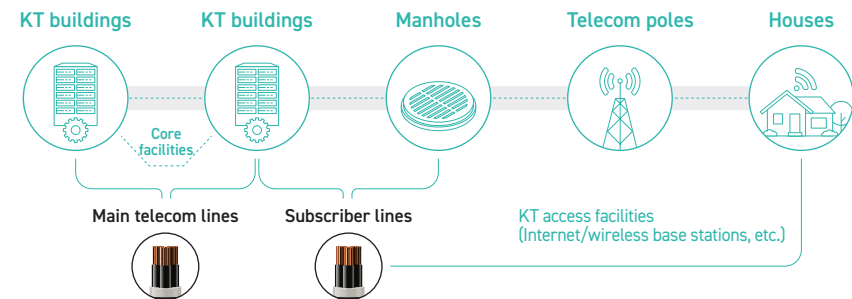
### Organizational Chart of the Disaster Countermeasure Headquarters



### Roles Assigned to Members of the Disaster Countermeasures HQ

Category	Role
Head of the HQ	Matters concerning responses to companywide crises
Deputy Head of Disaster Countermeasures HQ(Chief of the Countermeasure Team)	Development/operation of a system for coping with companywide crises and playing the role of a control tower when addressing a crisis
Crisis Management Committee	Decisions on the composition/dismissal of the Disaster Countermeasures HQ; making important decisions on operation
Chief, Information Subcommittee	Checking on disaster situations; sharing information with the government/relevant institutions; establishment of a system for cooperation
Chief, Technology Subcommittee	Provision of technical/personnel support(with staff from KT's subsidiaries and manufacturers) for the Onsite Rehabilitation Team
Chief, Supply Subcommittee	Provision of supplies for emergency rehabilitation
Chief, Customer Subcommittee	Checking on details of loss/damage, informing customers of the situation, managing the situation, providing customer care, reviewing customer compensation
Chief, Safety Subcommittee	Safety management, first-aid steps(calling 119, etc.), and welfare support
Chief, Budget Subcommittee	Compiling an emergency disaster budget and allocating it in a timely manner
Chief, Legal Affairs Subcommittee	Judicial review/support concerning rehabilitation/compensation
Chief Risk Subcommittee	Management of(expected) companywide/outside risks in a timely manner
Chief, Media Subcommittee	Interacting with mass media(broadcast, internet, social media, etc.); establishment of a reporting center and designation/management of a spokesperson
Chief External Affairs Subcommittee	Interacting with the government, the National Assembly and those handling matters related to outside cooperation
Chief, Situation Room	Checking on the magnitude of loss/damage and the expected time required for rehabilitation; command/control of the situation of rehabilitation
Chief, Onsite Rehabilitation Team	Creation of relevant information and conveying the information to the Disaster Countermeasures HQ
	Matters concerning emergency rehabilitation of damaged facilities

### ★ Status of Communications Facilities



Category	Wireless	Internet	Transmission	Switchboard
Quantity	999,847	591,949	184,953	236,429

<b>Wireless</b>	1,920 5G/LTE/3G core and 997,927 access(DU, RU, relays)
<b>Internet</b>	783 IP core(Kornet, premium, 5G backbone), 591,166 access(OLT, switch)
<b>Transmission</b>	7,320 telecom transmission (WDM, POTN), 177,633 subscriber transmission(MSP, PTN, etc.)
<b>Switchboard</b>	Switchboard, BcN, VoIP

### ★ OSP Facilities

Telecom buildings	Copper cable	Optical cable	Tunnels	Poles	Manholes
375 stations	321,000 km	917,000 km	280 km	4.83 million	810,000

#### OSP(Out Side Plant) facilities

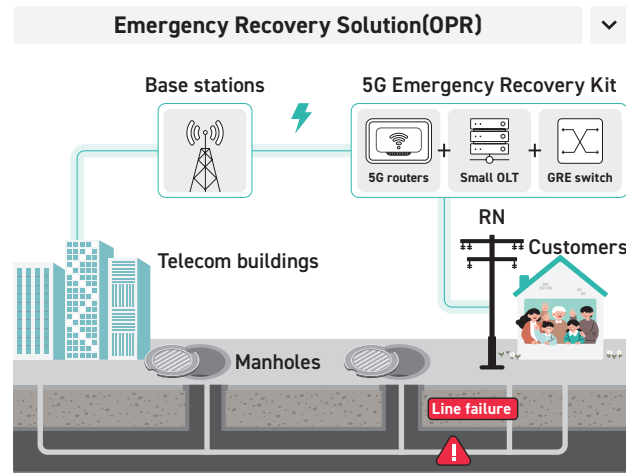
Basic communications infrastructure such as cable tunnels, poles and manholes, other than communications equipment like base stations, servers, etc.

## Stable Network Operation

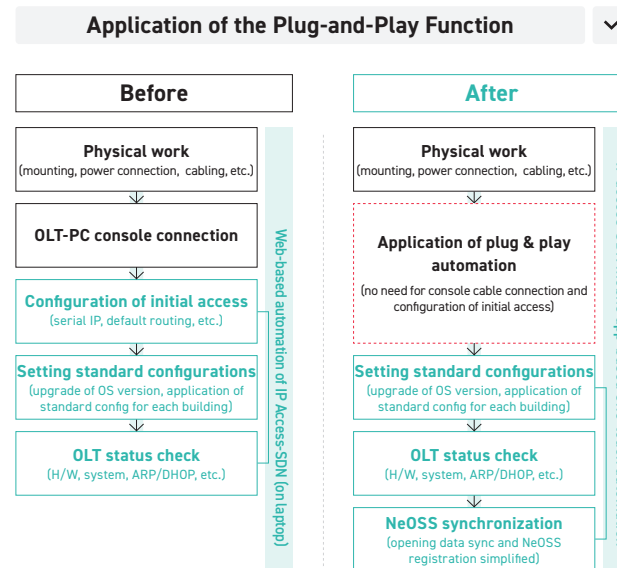
### Prompt Response to Failure

To prepare for damages caused by off-site construction, we are promoting the development of bypass recovery solutions and strengthening responsiveness to minimize customer quality complaints. In particular, in the event of an unexpected line failure due to external construction, etc., we are dramatically improving customer damage by supplying an emergency recovery solution (OPR\*) that enables rapid recovery. In addition, we are operating a control tower to strengthen control over restoration of line failures, and are continuing to make efforts to prevent damage in advance by distributing unexpected construction awareness solutions throughout the company. In addition, we operate control towers to strengthen control over line failure restoration. Going

forward, we will continue our efforts to prevent damage in advance by rolling out quick construction recognition solutions throughout the company. To address failures of Internet receiving equipment (OLT\*), we are applying a plug-and-play function that will allow field workers to replace only the hardware, while the opening and restoration work is automated. As a result, we have been able to reduce the number of steps for emergency recovery work from six to four, and operators can now work and monitor progress via smartphones for faster recovery. These efforts will help minimize customer damage caused by OLT failures and contribute to improving customer satisfaction. We will also continue our efforts to provide better technology and services in the future.

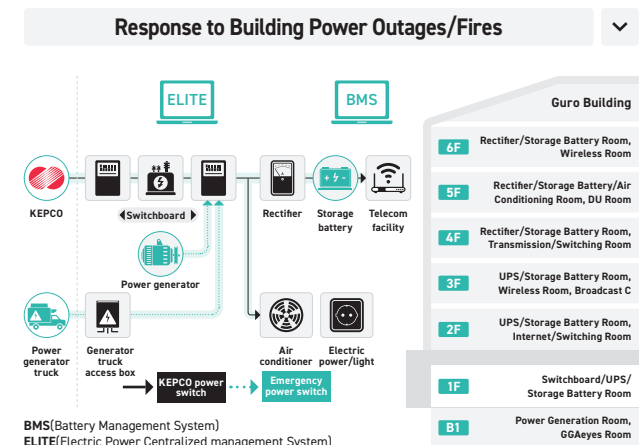


\* OPR(OSP VOC Proactive Recovery Kit) : KT self-developed emergency recovery solution using 5G base station in case of optical cable failure  
OLT : FTTH-based subscriber accommodating equipment installed in government offices



### Response to Building Power Outages/Fires

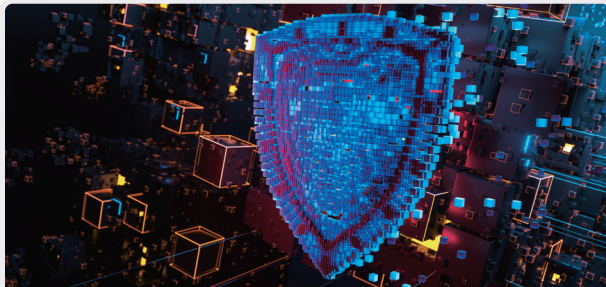
A company-wide expert group workshop on responding to fires and power outages at its telecommunications facilities in order to preemptively prevent nationwide disruptions of telecommunications services due to power outages and fires. The ten major issues derived from the workshop include an overall fire/power outage response plan for all facilities, as well as specific measures for each floor and service area. We are analyzing/managing fire risk areas preemptively by preparing a building fire response manual for each facility. We have strengthened collaboration with fire departments by establishing a fire response system, ensuring that firefighters are able to enter smoothly and carry out fire suppression activities while reducing service interruptions. In addition, we plan to systematically implement tasks corresponding to strengthening the standards for installing and maintaining facilities, such as redundancy in extra high voltage substation and preventing damage to low-voltage switchboard mains. The ten tasks will be applied to critical equipment first, and will be expanded gradually to ensure the stability of communication services for the entire nation.



## Stable Network Operation

### Focus on Countering DDoS Attacks

KT conducts various activities to ensure that citizens can use the Internet safely and to protect the network-based infrastructure of the country and companies from acts of cyberterrorism such as DDoS attacks. Our Korean top-notch security organization has the capabilities to detect and respond to cyber attacks in real time. We are the first Korean telecommunications company to deploy security equipment in 100% of overseas interconnection network sections to preemptively block abnormal traffic from both domestic and international sources. We have also established cyber shelters to provide seamless and stable services to major domestic companies and national institutions. In addition, we commercialized the SOAR\* system to prevent intelligent cyber attacks, by enabling the automatic detection of harmful information using our security infrastructure. We also conduct diagnoses of security vulnerabilities and hacking simulations for all infrastructure equipment on a regular basis. In the future, we will establish systems and processes that can be verified and approved by security organizations when responding to DDoS attacks so as to prevent damages caused by work errors such as IP misinterception.



\* SOAR : Security, orchestration, automation and response

### Company-wide Internalization of 'Basics Must'

Starting from 2019, KT has been identifying, expanding, and promoting the basics every year since the 2018 Ahyeon fire through the 'Basics First' project in order to strengthen compliance with the basics and principles, and internalize them in our daily operations. From 2022, the company-wide 'Basics Must' project has been promoted to ensure that principles take precedence over practices in order to make changes that customers can notice and realize zero accidents.

In 2023, KT has been continuing its efforts to embody 'Basics Must' to the full extent and realize a year that raises stability, safety, and customer-centricity to the next level. To this end, we aim to build a stable operating system by innovating the way we operate our network and improving its structure. To minimize disruptions and enhance response capabilities, we will promote innovation in methods of network operation by minimizing and controlling daytime operations, expanding automation, establishing an emergency response system, and improving capabilities. In addition, we will continue to ensure network survivability by improving the network structure through the separation of wireless networks, building redundancy for the core infrastructure, and securing capacity. We plan to minimize risks in gray areas by identifying and promoting cooperation tasks for stable operations among divisions and group companies. Through these initiatives, KT will strive to maintain a stable operating system and provide better services to customers in 2023.



#### Focused projects

##### Securing network survivability

- Minimize/centralize IP network daytime work
- Establishment of wired and wireless 3 centers, Separation of wireless network

##### Changing the way of working based on automation/systemization

- Expanding SDN-based task automation
- Advancement of work control system

##### Expanding/advancing training to fully realize stable operation

- Expanding/advancing practical emergency rehabilitation training
- Implementing company-wide crisis response drills

##### Continue to promote communication disaster response

- Revise the company-wide crisis response system
- Establish an emergency response system at the building level

## Network Infrastructure Innovation

### Network Automation/Intellectualization

KT is applying AI in various fields to transform itself into a digital platform company, and is promoting the implementation of conversational AI(ChatGPT, etc.). In addition to the various services provided to our customers, we are also utilizing AI to operate and manage our network in order to improve the accuracy of simple tasks performed onsite, and to accurately to perform complex tasks that are difficult for humans to perform. AI learns network quality information for the preemptive care of customers. KT will lead technological innovation to provide customers with the best network services by automating and intelligentizing in our work to ensure a customized wired and wireless network quality environment.

### Network Automation

For network automation, KT is leveraging solutions like SDN\* and RPA\* to automate repetitive tasks, thereby reducing operators' errors and time required for performing tasks. Such solutions are being applied to all network fields such as wireless, internet, transmission, and cables. We are steadily developing and applying automation solutions in areas such as prediction of network failure/recovery, quality optimization, and advanced network control. In particular, we are expanding automation of on-site work in the IP/transmission area based on SDN, and further improving the efficiency of on-site work through gradual system integration.

\* **SDN**(Software Defined Networking) : Software-based network operating system  
**RPA**(Robotic Process Automation) : Automation by applying software to repetitive and simple business processes during business processes

### Intellectualization of Network Quality

KT is developing solutions for intellectualization of wired and wireless network management by utilizing AI and big data technologies. We are advancing the "Network Own-View" system for integrated management of key quality indicators and implementing the POI\* auto-generation quality analysis system for automatic quality analysis of key areas of concern with excessive traffic. In addition, by developing a proactive care solution using AI models to predict potential customers who are experiencing poor wireless quality and providing proactive care to resolve their issues. We plan to continue to secure a network quality management system to monitor the overall network quality in real time and check the actual quality of the customer's experience. These efforts have contributed significantly to the improvement of customer satisfaction and brand image.

\* **POI**(Point of Interest) : Points(university/hospital/community center, etc.) that include attribute information by categorizing location/place of interest



### Addressing Traffic Demand

In 2019, KT completed 5G coverage in Seoul, the Seoul Metropolitan Area, 85 cities and towns, and major transportation routes, followed by a joint-use pilot commercialization project in rural areas in 2021 and the completion of the first phase of commercialization in 2022. KT is continuing to expand with the goal of completing nationwide 5G coverage by the first half of 2024. As of 2022, KT owned a total of 24.04 million lines and its wireless network traffic reached 3,078 PB\*, a 17% increase from the previous year(2,610 PB). KT continuously monitors the increase in traffic every year, and in response to this and in order to improve the quality of its wireless network, KT is striving to provide stable and high-quality services by making proactive investments in network equipment, such as by launching the first 5G SA commercial service in Korea in 2021.

\* PB(Petabyte) = 1,000Terabyte

#### Wireless network capacity (Unit : 1,000 lines)

Category	2020	2021	2022
LTE	18,900	16,900	15,700
5G	3,710	6,470	8,340
Total	22,610	23,370	24,040

#### Wireless network traffic (Unit : PB)

Category	2020	2021	2022
Wireless network traffic	2,243	2,610*	3,078

\* 2021 figure revised due to change in traffic calculation standard for external provision

## Network Infrastructure Innovation

### Development/Adoption of Next Generation Technologies

#### First VoNR commercialization in Korea based on 5G SA

KT was the first Korean telecommunications company to deploy 5G SA infrastructure in 2020, and has now completed the introduction of SA commercial networks in 87.6% of the country, excluding rural joint-use network areas. In addition, to lead the introduction of 5G voice-over network, or VoNR, we continue to conduct technical verification of terminals and systems in continuous collaboration with manufacturers. Since last April, we have been providing VoNR pilot services to about 700 KT employees to collect internal evaluations and opinions on improving the technology and prepare to provide commercial services with more stable quality for general customers in the future. For the advancement of technology to 5G-Advanced and 6th generation(6G), we will introduce differentiated SA-based services to actively lead the next generation of technology.

#### Global awards

KT was recognized for its excellent network technology and service capabilities and received nine awards in five categories at global awards in 2022. In recognition of its Wi-Fi technology and contributions to the development of the industry, KT won the 'Best Wi-Fi Network Operator' award at the Wireless Broadband Alliance (WBA) in Amsterdam, the Netherlands, in October 2022, and received an award in the 'Leading Digital Innovation' category at the Network X Awards in recognition of its transformation into a digital platform company by utilizing artificial intelligence, big data, and the cloud. At the World Communications Awards(WCA) held in London, UK, hosted by Total Telecom, KT was recognized for its 5G network services, contributions to telecommunications technology and the market, and its transformation into a digital platform company, and won three awards, including '5G Implementation Award', 'Telecommunications Company of the Year', and 'B2B Service of the Year'. As such, KT will lead the global telecommunications industry by introducing innovative convergence solutions based on its stable network and excellent technology.



**WBA Industry Awards**  
Awarded "BEST WI-FI NETWORK OPERATOR"



**Asia Communication Awards**  
Awarded "OPERATOR OF THE YEAR"

## Developing Network Experts

### N.EX.A(Network Expert Academy)

It is a program aimed at improving the competency of junior employees in KT's network field. N.EX.A Basic aims to focus on in-depth training and practical work for their assigned jobs and they are dispatched to the Network Research and Technology Center to work with a group of network technology experts for about six months before being assigned to a field department. N.EX.A Pro is an intellectual and interpersonal exchange program that focuses on employees at the managerial level or below, working in each field, with the goal of enabling them learn and initiate discussions on their own. The program aims to enhance their capabilities as pre-professionals, and they contribute to making practical changes in the company/work by discussing and developing learning topics they have discovered on their own. Subject matter experts and team leaders in their respective fields as supporters to help them refine their tasks and strengthen execution. The program starts with core facilities such as IP/wireless core/transmission, which are the foundation of KT's network, and will be expanded to all fields going forward.



### Nurturing AI Workforce

In preparation for the upcoming AI era, KT is steadily fostering SW/AI development experts and expanding the scope of internalization by developing solutions that reflect the latest technology trends. By fully internalizing the SDN solution that we were working on with an existing developer, we have been able to strengthen our capacity to respond to technical requirements and provide stable and reliable network services utilizing KT's SW capabilities. In addition, automated tasks have greatly improved productivity in the field, and we are striving to manage and utilize human resources more efficiently.

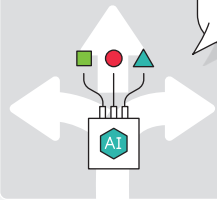


## #2 Strengthening Future Core Competitiveness



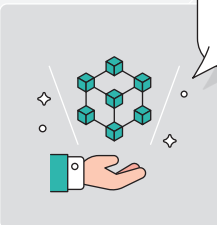
**What is KT preparing to strengthen its competitiveness for the future?**

In order to strengthen competitiveness in a rapidly changing world, continuous technology development is essential, right? In order to evolve the vast knowledge and data created by today's technology into technology that actually improves the quality of our lives, KT is always leading the world one step ahead. KT understands, remembers, and empathizes with customers' thoughts and emotions. We have developed "Hyperscale AI Mi:dm" as an axis of future core competitiveness.



**What makes KT's Hyperscale AI Mi:dm unique? I want to know in what situations Mi:dm would be best utilized.**

I'm specialized in enterprise work. Whether you're trying to use AI in finance, media, or the public sector, the security of corporate data and the reliability of the AI's answers are crucial, I'm optimized through KT's unique structure to satisfy both conditions, and I can quickly customize other requirements for each company through data preprocessing and customized microlearning!



**What kind of ecosystem does KT want to create through its Hyperscale AI Mi:dm?**

KT is planning to create a Korean AI full-stack. We are integrating all technologies, including AI infrastructure, hardware, and software, and providing them as a package. Therefore, we can say that we are investing and researching diligently. The goal is to solve various problems in various industries such as logistics, counseling, and healthcare through a super large AI ecosystem, as well as to enhance digital sensibilities in everyday life!



Ask **Mi:dm, Hyperscale AI**



send

## Construction of Hyperscale AI Ecosystem

### Hyperscale AI Mi:dm

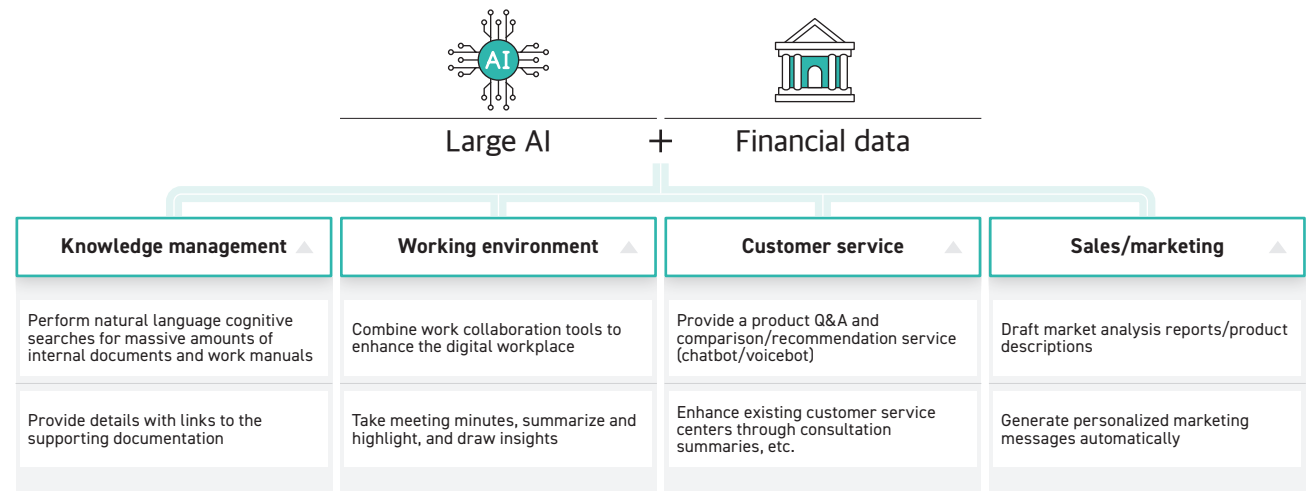
KT's Hyperscale AI Mi:dm is a Korean-specific super AI model designed to understand emotions and empathize with humans based on AI technology proven through Korea's largest AI speaker, GiGA Genie. It is optimized for multitasking through an innovative AI model structure that considers both interpretation and generation, and is equipped with AI ethics systematization and two-stage filtering technology. In addition, unlike existing models, it learns problem situations explicitly, which allows it to make organic situational judgments. It is lightweight and can acquire external knowledge quickly because it has a structure that enables rapid expansion of AI intelligence. The goal is for Mi:dm to become field-applicable. It solves the problem of inefficiency that was pointed out as a shortcoming of existing super AIs and strengthens the aspect of business utilization.

By innovating the existing "Digital platform KT" transformation method, the Hyperscale AI Mi:dm is transforming KT's core businesses. Until now, individual AI core engines were used for each business platform, but now, a single engine, the Hyperscale AI Mi:dm, is integrated into each platform, which will present greater capabilities. In addition, the Hyperscale AI Mi:dm is expected to acquire the capacity for more human-like conversations by not only adopting the right speaking style and voice based on the user to provide the most comfortable response, but also by remembering and utilizing previous conversations. After the conversation ends, it summarizes the content of the consultation in one or two natural sentences to remember it and use it for follow-up consultations, and it even performs statistical analysis. This can be applied to the field of counseling, such as 'emotional care' services for senior customers or specialized AI services.

In the logistics field, it can provide optimal transportation routes for cargo vehicles or design efficient employee routes for logistics centers. In the medical field, it can classify thyroid nodules automatically by analyzing ultrasound images with AI, and then determine the risk of disease before communicating with patients. It can also be easily applied elsewhere, including in education and new industries such as virtual assistants. This will enable faster and more effective innovation in existing industries and will also be useful in opening new industries. With domestic AI semiconductor companies, KT is building an AI full-stack ecosystem that can efficiently deliver the Hyperscale AI ecosystem. In the future, we plan to enable even more diverse service companies to utilize the Hyperscale AI Mi:dm at a lower cost.

#### Cases of using the large AI Mi:dm

Expanding innovation across the financial industry value chain through the convergence of financial data



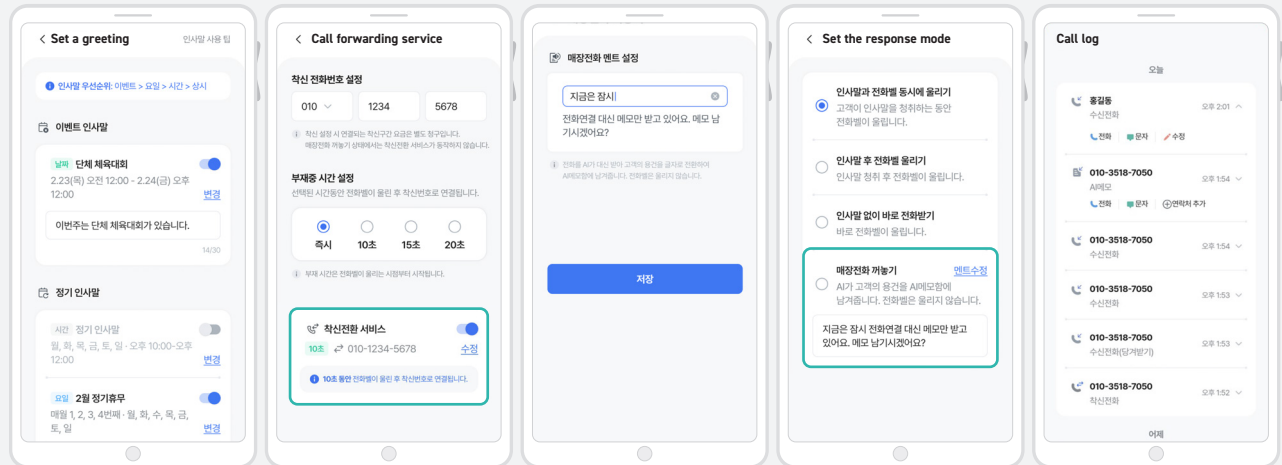
## Construction of Hyperscale AI Ecosystem

### AI Call Assistant Service

KT has launched AI Call Assistant, an ultra-small customer center service that can be used not only by large companies but also by small businesses. It reflects KT's determination to redefine the telecommunications industry using AI technology and facilitate small businesses experiencing labor shortages to take care of phone inquiries and requests that they cannot respond to in a timely manner, especially when dealing with walk-in customers. AI receives calls for them, not only answering with a greeting but also providing restaurant locations, business hours, parking information, and even taking reservations and orders.

Since the launch of AI Call Assistant in October 2021, we've answered over 30 million customer inquiries, and as of March 2023, we had approximately 32,000 subscribers using our AI assistant. In that month, the most common types of inquiries handled by the AI Assistant were queries regarding standard business hours(41%), reservations(26%), parking(21%), store locations(7%), and orders(7%). The lite version of AI Call Assistant focuses on features are essential for small businesses, and improves on the previous method of using a representative number ARS or pressing a button on a landline phone by enabling GUI-based remote setup from the mobile app, while the standard version provides not only AI answering but also ordering and payment functions that are essential for increasing sales. The AI assistant helps small businesses increase sales by managing all incoming calls round the clock to ensure that no valuable customer calls are missed.

### AI Call Assistant <sup>Lite</sup> All the features your store phone needs in one place!



**1 AI greeting**

Change the greeting on incoming calls in real-time, unlimited times

**2 Call forwarding**

Easily set up call forwarding with the app anytime, even when you're away

**3 AI memo/chat**

Missed/busy calls can be excused by AI and left as a text, and you can text back and forth with the customer on their landline number

**4 Setting the response mode**

Depending on the situation in your store, you can set different response modes, such as whether a person answers the call right away or transfers the call after saying hello

**5 Call log status and contacts**

View detailed call logs(missed, transferred, picked up, etc.) and add or edit contacts

### AI Call Assistant products

Category	AI Call Assistant Standard Version(Oct. 2021 ~)	AI Call Assistant Lite Version(Sep. 2022 ~)
Monthly fee	KRW 22,000	KRW 5,500
Features provided	<ul style="list-style-type: none"> <li>Call forwarding/greetings + AI response(business hours/parking/address information and reservations, orders)</li> <li>AI voice memo</li> </ul>	<ul style="list-style-type: none"> <li>Call forwarding/greeting</li> <li>AI voice memo</li> </ul>
Newly added features	<ul style="list-style-type: none"> <li>Visible order/payment function</li> <li>Order menu linked to PG company/payment service</li> </ul>	<ul style="list-style-type: none"> <li>Get more out of a landline</li> <li>Simultaneous ringing with the store phone, different greetings for different times of the day</li> </ul>



## Open Innovation

### International Technology Standardization Leading with Proprietary technology

#### Quantum cryptography

KT has launched commercial quantum communication equipment that it developed independently and has succeeded in developing full channel recovery and consolidation technology to provide uninterrupted service and reduce line costs. It has also developed Korea's first high-speed quantum communication equipment and established Korea's longest-range wireless quantum communication technology. Quantum cryptography is the next generation of secure communication technology, characterized by the outstanding security it offers. The quantum communication market is expected to grow to more than USD 2.1 billion(approximately KRW 2.77 trillion) by 2027. Thus, in addition to technology development, KT has established quality evaluation criteria for providing commercial quantum communication services and proposed and received approval for them as international standards.

As such, KT is developing quantum network technology and international standardization proactively at the same time to vitalize the quantum Internet field, and has demonstrated the longest-distance global hybrid quantum communication service among domestic telecommunications companies. KT is striving to standardize quantum cryptography with purely domestic technology. The company believes that the key to commercializing quantum cryptographic communication is the stability of the equipment, the continuity of the service even if the network is disconnected, and a reduction in the overall unit cost of the equipment, and is proceeding in the direction of creating international standards for related technologies at the telecom company level.

In the past, standardization activities related to quantum cryptography were focused on global equipment manufacturers, but establishing international standards driven by telecommunications companies will enable these companies to supply equipment at the desired level. KT believes that competition among equipment vendors will create a low-cost service environment and facilitate the global expansion of domestic companies with relevant technologies. Although KT has only recently started developing quantum cryptography technology at full scale, it is leading the domestic quantum industry by securing outstanding human resources, continuously developing technology, and transferring the largest volume of technology to domestic SMEs. The recently launched quantum encryption dedicated line service is a B2B service based on KT's quantum cryptographic communication technology. KT will continue to develop various technologies utilizing quantum networks to secure its leadership in quantum internet technology and lead the global expansion of quantum technology.



#### KT's differentiation points

##### Differentiation Points

###### Flexible

No need to replace existing equipment/multi-vendor compatible

###### Low Cost

Key + Data optical cable sharing  
< 1/5 implementation cost

###### High Key Rate

Capable of supplying  
4,000 encryption devices  
simultaneously

###### Seamless Service

In the case of optical fiber  
failure/hacking < 1 min. auto  
switchover

###### 100% Korean Technology

Technology transfer/domestic  
production after in-house  
technology development

##### Other Companies

###### Replacement of equipment

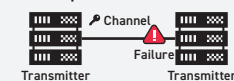


###### Channel division



6kbps(as per the website)

###### Suspension of service



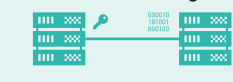
External quantum key  
distribution device

##### kt

###### No need for replacement of equipment



###### Channel sharing



20kbps

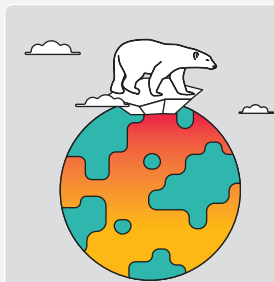
###### Auto-switchover no-suspension service



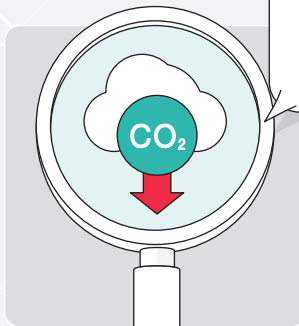
E2E Korean solution



## #3 Addressing Climate Change

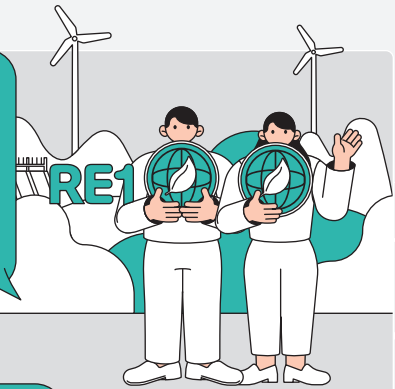


The environment is a really important issue these days. What activities is KT undertaking to address climate change?

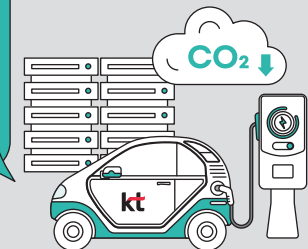


Is that right? Please tell me what KT is doing to reduce greenhouse gas emissions.

That's right, the environment is something that everyone should work on together. So KT is making various efforts and carrying out activities to reduce greenhouse gas emissions, such as joining RE100 and actively utilizing renewable energy, based on the Essential Environmental Vision and Promotion System.



KT has optimized its network and improved its structure to reduce GHG emissions from the electricity consumption of network equipment. The company is also focusing on reducing GHG emissions from office buildings and is in the process of converting its company vehicles to electric vehicles to reduce GHG emissions. KT has advanced its GHG management system to manage GHG emissions from office buildings, telecommunications equipment, company vehicles, and major group companies nationwide, and plans to achieve Net Zero by 2050!



Ask Mi:dm, Hyperscale AI



send

## Climate Change Response Strategy

### Vision and Strategy for Green Survival Management

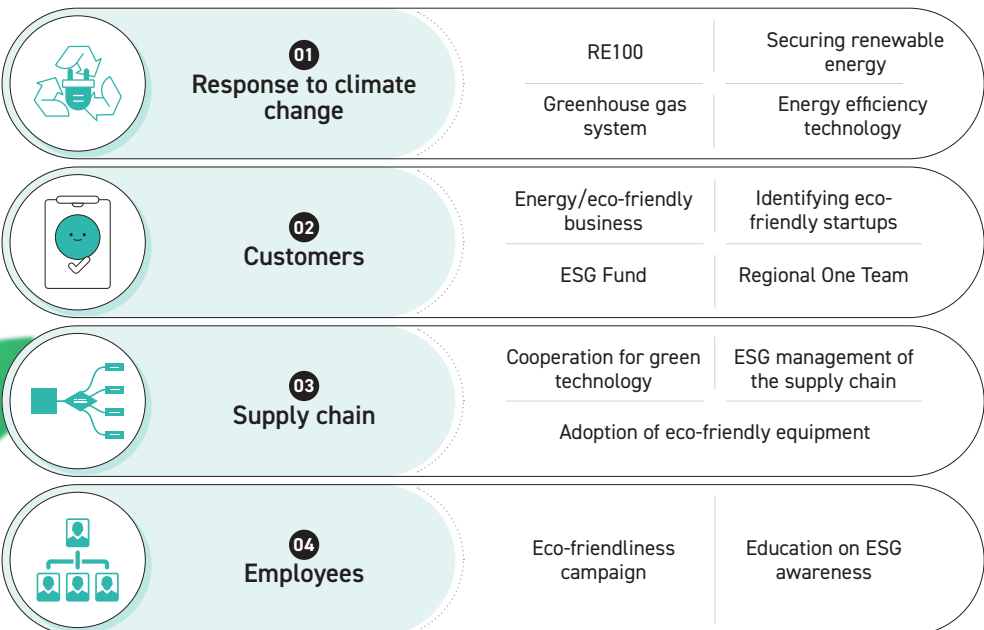
Recognizing that environmental issues have worsened from climate change to a climate crisis and escalated from eco-friendly to green survival, KT has established a new environmental management vision, "Net Zero 2050." We will strive to minimize our environmental impact and continue to identify eco-friendly services using digital platform technology to achieve Net Zero 2050. In addition, we will continuously strive to reduce greenhouse gases and are doing our best to expand the use of renewable energy in order to contribute to achieving Net Zero at the national level.

### Goal for Climate Change Response

In 2022, KT spun off its Cloud/IDC business division by establishing kt cloud and redefined its GHG reduction targets in view of changes in organizational boundaries. We reassessed our GHG emissions from 2017 to 2021 to reflect the changed organizational boundaries, set the most recent year, 2021, as the baseline year by reflecting the SBTi guidelines, and established interim goals to achieve Net Zero by 2050. The newly established goals are to reduce GHG emissions by 51.7% by 2030 and 75.8% by 2040 compared to 2021 emissions, and KT will continue to reduce GHGs and expand renewable energy to achieve the goal.

A promise for the future,  
**Green KT**

**Net  
Zero  
2050**



## Risks/Opportunities of Climate Change

### Process for Recognizing

The ESG Management Promotion Office and the Environmental Management Committee identifies climate change-related risks and opportunities continuously and reports them to the ESG Promotion Committee. The committee then closely analyzes the identified risks and opportunities from a company-wide perspective and establishes response strategies and detailed implementation plans for issues of mid- to long-term importance(those with significant financial or reputational risks), and reports them to the ESG Promotion Committee, the Sustainability Management Committee, and the BOD for approval.

### Materiality Assessment

To identify material risks and opportunities associated with climate change, we conducted a materiality assessment based on the TCFD guidelines. Transition risks and opportunities are prioritized based on the level of impact and the likelihood of the occurrence of climate change, and response strategies and challenges are developed accordingly.

#### Process

List of risk/opportunity factors	Assess the materiality of risks/opportunities	Finalize critical issues
<p><b>Identify agenda items for KT based on the TCFD Guidelines' taxonomy of climate change-related risks and opportunities and examples</b></p> <ul style="list-style-type: none"> <li>Risks : Transition risk(policy, legal, market, reputation), physical risk</li> <li>Opportunities: resource efficiency, energy resources, products/solutions, markets, resilience aspects</li> </ul> <p><b>Refine the selected agenda to select issues that are specific to the industry and KT(Combining external expert analysis, benchmarking against global leaders, and results of internal workshops)</b></p>	<p><b>Assess the business impact of the risk in terms of likelihood of occurrence and magnitude of impact</b></p> <p><b>Short, medium, and long-term assessments</b></p> <ul style="list-style-type: none"> <li>Short-term : ~2025</li> <li>Mid-term : 2026~2030</li> <li>Long-term: 2031~2050</li> </ul> <p>* Qualitative assessment of the materiality from a strategic perspective as well as from the perspective of financial impact</p>	<p><b>Set criteria for material risks/opportunities</b></p> <ul style="list-style-type: none"> <li>Impact aspect: Revenue/costs of KRW 10 billion or more(1% of operating income, 10% of asset loss), or equivalent strategic impact</li> <li>Occurrence time perspective: Limited to agendas that are likely to occur within the medium term(2030) and have a high impact</li> </ul> <p>* Monitor and manage risks and opportunities that will have a material impact beyond 2030</p>

### Key risks/opportunities of climate change

Category	Highlights(Potential impacts)	Status of KT Response and Plans
Risks	<b>Current regulations</b> <ul style="list-style-type: none"> <li>National 2050 carbon neutrality, continued strengthening of cap- and-trade system in view of the raised 2030 NDC</li> <li>Tighter reduction targets in the fourth phase of the cap-and-trade system, and higher emission allowance prices due to a larger share of paid allocations</li> </ul>	<ul style="list-style-type: none"> <li>Create and implement a strategy to respond to the cap-and-trade system</li> <li>Establish KT company-wide integrated management system for greenhouse gases</li> </ul>
	<b>New regulations</b> <ul style="list-style-type: none"> <li>Expect new regulations such as carbon taxes, building greenhouse gas capture, and mandatory introduction of eco-friendly vehicles</li> <li>Costs of regulatory compliance when new regulations are introduced</li> </ul>	<ul style="list-style-type: none"> <li>Participate in new regulatory adoption councils(To keep track of how regulations are being adopted)</li> </ul>
	<b>Legitimacy</b> <ul style="list-style-type: none"> <li>Litigation risk for non-disclosure(SEC climate disclosure required from 2024)</li> </ul>	<ul style="list-style-type: none"> <li>Pursue objective data collection and disclosure to meet disclosure standards</li> <li>Ensure reliability of data with third-party verification</li> </ul>
	<b>Technology</b> <ul style="list-style-type: none"> <li>Rising electricity costs on account of failure to invest in new network technologies</li> </ul>	<ul style="list-style-type: none"> <li>Continue to identify and apply network electricity reduction solutions(network efficiency)</li> </ul>
	<b>Market</b> <ul style="list-style-type: none"> <li>Lower revenues due to reduced consumer demand for energy-intensive products/services</li> </ul>	<ul style="list-style-type: none"> <li>Increase energy efficiency with continuous energy savings</li> </ul>
	<b>Reputation</b> <ul style="list-style-type: none"> <li>Lack of climate change action could lead to customer attrition and decline in stock prices</li> </ul>	<ul style="list-style-type: none"> <li>Continue to take action on climate change by reducing energy use, using renewable energy, etc.</li> <li>Strengthen communication with external stakeholders, including responding to ESG assessments and publishing ESG reports</li> </ul>
	<b>Changes in the physical environment (Short-term)</b> <ul style="list-style-type: none"> <li>Damage restoration costs are incurred when network equipment fails due to typhoons, heavy rains, etc.</li> <li>Possible customer attrition due to prolonged failure of network equipment</li> </ul>	<ul style="list-style-type: none"> <li>Monitor the operation of network equipment nationwide and establish a rapid response system in the event of a failure</li> </ul>
	<b>Changes in the physical environment (Long-term)</b> <ul style="list-style-type: none"> <li>Increased cost of cooling telecommunication equipment due to higher average temperatures</li> </ul>	<ul style="list-style-type: none"> <li>Continue to drive cooling efficiency by introducing high-efficiency chillers, automating systems for cooling, etc.</li> </ul>
	<b>Resource efficiency</b> <ul style="list-style-type: none"> <li>Improving customer perceptions on recycling technologies and recycled products</li> </ul>	<ul style="list-style-type: none"> <li>Reduce operational costs by maximizing the recycling of network equipment</li> <li>Produce eco-friendly terminals by recycling telecommunication terminals(plastic)</li> </ul>
	<b>Energy sources</b> <ul style="list-style-type: none"> <li>Reforming the electricity market, including the introduction of a renewable energy PPA system</li> <li>GHG reduction credits for the use of renewable energy</li> </ul>	<ul style="list-style-type: none"> <li>Promote KT Group-wide expansion of renewable energy(Self-generation, green premium, PPA, etc.)</li> </ul>
Opportunities	<b>Products and services</b> <ul style="list-style-type: none"> <li>Growing customer needs for low-carbon products and services</li> </ul>	<ul style="list-style-type: none"> <li>Develop low-carbon services such as carbon-neutral platform, paperless processing, digital logistics, etc.</li> </ul>
	<b>Market</b> <ul style="list-style-type: none"> <li>Government-led expansion of energy efficiency and renewable energy market</li> </ul>	<ul style="list-style-type: none"> <li>Win several national energy projects linked to telecommunications technology</li> </ul>

## GHG Management

### Strengthening the GHG emissions managing system

KT established a company-wide GHG inventory for scope 1 and 2 emissions in 2011, and expanded the scope of management to scope 3 in 2013. Emissions under scopes 1, 2, and 3 are verified annually by an external specialized organization to ensure the reliability of the data. In 2018, KT established an integrated system to monitor the GHG emissions of its offices across the country in real time. The system also allows us to check the GHG emissions of our offices nationwide in real time, detect energy-wasting factors and identify reduction measures through comparative analysis with the previous year's emissions. In 2021, we advanced the management system to manage GHG emissions from all telecommunications equipment(forward deployment sites, base stations, repeaters, etc.) and company vehicles nationwide in order to manage 100% of scope 1 and 2 emissions. In 2022, we added a menu to manage the GHG emissions pertaining to major group companies and developed an RE100 implementation management function.

#### Scope 1

As a business subject to the ETS(Emissions Trading System), we report scope 1 and 2 emissions to the Ministry of Environment annually. The scope of the report covers all our facilities including all our corporate buildings across the country, branches, forward deployment stations, base stations, relays, and company vehicles. Scope 1 emissions come from heating of the buildings, operation of company vehicles, emergency generators and fuel cells. In 2022, our scope 1 emissions stood at 37,885 tCO<sub>2</sub>eq, a 0.8% reduction from those of 2021(37,674 tCO<sub>2</sub>eq) and 4.7% less than the target set for the year(39,768 tCO<sub>2</sub>eq). In 2022, we optimized heating energy for the management of adequate temperature, invigoration of video conferences intended to reduce the use of vehicles, etc., to reduce scope 1 emissions. In this way, we reduced emissions by about 1,700 tCO<sub>2</sub>eq.

Scope 1 Details of Scope 1 Emissions (Unit : tCO <sub>2</sub> eq)			
Fuel types	2020	2021	2022
Fixed fuel	17,306	17,154	18,114
Mobile fuel	15,088	14,506	14,025
Fuel cells	3,251	6,014	5,746
Total	35,645	37,674	37,885

\* Scope 1+2 : Includes kt cloud revenue in 2020 and 2021

#### Scope 2

Scope 2 emissions are those from electricity used in our corporate buildings, telecommunications equipment and EVs, and the heat(hot water) used for the heating of corporate buildings. In 2022, our scope 2 emissions stood at 1,070,773 tCO<sub>2</sub>eq, a 3.5% increase from those of 2021(1,034,713 tCO<sub>2</sub>eq) but 2% less than the target set for the year(1,092,218 tCO<sub>2</sub>eq). In 2022, we pushed ahead with programs designed to reduce the use of electricity, including the upgrade/replacement of existing wired/wireless network equipment with more efficient equipment, automating the cooling of branches, improvement of air conditioners, and optimization of branches to reduce scope 2 emissions. In this way, we reduced emissions by about 35,600 tCO<sub>2</sub>eq. However, our use of electricity increased 3.5% year-on-year due to the nationwide installation of 5G network equipment and an upgrade of the IDC server.

Scope 2 Details of Scope 2 Emissions (Unit : tCO <sub>2</sub> eq)			
Fuel types	2020	2021	2022
Electricity	945,617	1,032,760	1,068,675
Heat(Hot water)	1,721	1,953	2,098
Total	947,338	1,034,713	1,070,773

Scope 1+2 Scope 1+2 intensity (Unit : tCO <sub>2</sub> eq, tCO <sub>2</sub> eq/KRW 100 million)			
Category	2020	2021	2022
Intensity to Sales	6.833	7.309	6.062

#### Scope 3

Scope 3 emissions refer to GHGs that are emitted indirectly through business activities outside of a company's organizational boundaries. We developed a calculation methodology for scope 3 emissions in 2013 and expanded the scope of GHG management from scope 1 and 2 to scope 3. We manage scope 3 emissions by dividing them into three stages: supply chain stage, stage of use, and stage of other emissions. Emissions in the supply chain stage refer to GHGs emitted in the process of the production of goods by material primary subcontractors for supply to us and emissions at the stage of use refer to GHGs emitted in the process of customers using our services. The stage of other emissions refers to GHGs that are emitted due to water used at our corporate buildings, waste processing, employees coming to work/returning home and the use of public transportation for business trips. KT will strive to reduce scope 3 emissions by establishing an eco-friendly supply chain and expanding waste recycling and video conferencing.

Scope 3 Details of Scope 3 Emissions (Unit : tCO <sub>2</sub> eq)			
Category	2020	2021	2022
Supply chain stage	17,124	29,121	31,901
Stage of use	418,741	417,736	475,941
Water	644	673	479
Waste	3,295	5,283	2,999
Other			
Employee business trips	3,093	1,994	6,463
Commuting	21,481	20,751	19,759
Sub-total	28,513	28,701	29,700
Total	464,378	475,558	537,542

## GHG Management

### GHG Reductions

KT strives to achieve its greenhouse gas reduction targets every year. The Environmental Management Committee sets company-wide GHG reduction targets every year, identifies reduction tasks, and implements them. In 2022, we promoted company-wide GHG reductions through such a process and reduced approximately 37k tons of GHGs across the entire company.



#### Reduction of GHGs from network operation

Approximately 97% of KT's GHG emissions are due to the electricity consumption of its building, nationwide telecommunications buildings and wired and wireless network equipment. In particular, recent large-scale investments in nationwide 5G network equipment have led to an increase in electricity consumption, which in turn has led to an increase in GHG emissions. In response, KT is optimizing network equipment to improve the network structure and operate wireless equipment such as base stations and repeaters optimally by time zone to reduce electricity consumption.



#### Reduction of GHGs from office buildings

GHG emissions from energy use in KT buildings nationwide account for about 2% of KT's total emissions. To reduce GHG emissions from its buildings, KT is continuously replacing aged, low-efficiency boilers with high-efficiency boilers and strives to maintain optimal indoor temperatures so that no energy is wasted.



#### Reduction of GHGs from company Vehicles

KT operates about 5,800 company vehicles annually, and GHG emissions from these vehicles account for about 1% of KT's total emissions. To reduce GHG emissions from company vehicles, KT has introduced about 15%(830 vehicles) of its business vehicles as eco-friendly, including electric vehicles, and has established electric vehicle charging facilities at company offices to ensure smooth operation of electric vehicles. In addition, we are continuously striving to reduce GHG emissions from company vehicles by actively promoting video conferencing to reduce the use of business vehicles.



## Addressing Climate Change through Technology Research

### Research of Network energy saving technology

KT 5G stations have an antenna supporting beamforming which transmits signals to the location of smart phone. While LTE uses maximum four antennas for transmission and reception, 5G station antennas support beamforming, so it consists of 32 antenna elements(AE) for transmission and reception. Based on this, we developed energy saving technology which can control specific AEs at the 5G station. The technology has been applied to commercial devices. With this, wireless units at the station consumes up to 33% less power(325W before energy saving technology was applied → 217W after application). This contributed to saving OPEX worth 6.8 billion won. This can be converted into reducing 26,000 tons of CO<sub>2</sub> emissions or planting 4 million pine trees. As a result of our efforts, we were honored in 2022 with the "Sustainable Network Project" category at the Network X Awards, organized by global ICT research firm Informa.

#### Tx Path On/Off

Controlling the on/off state of specific AEs saves unnecessary RU energy consumption. This technology operates taking specific times or loads into account. To maintain the quality of service in the cell boundaries, when the transmission unit at the station senses a 5G device, it turns the transmission unit on from the off state in the direction of the 5G device.

#### Cell On/Off

This technology turns off a cell to save energy if little loads exist within the cell radius in a certain area or during a certain time. When the traffic drops below a certain level, it turns off the 5G cell as a whole. When it senses 5G units in LTE request service, the cell is turned on again.

#### PA (Power Amp) Bias Control

This technology limits the number of RB(resource block) to half by regulating the drain bias voltage of RU power amplifiers when a station transmits the downlink data.

#### Dynamic PA On/Off

This technology utilizes time division duplex(TDD) of 5G and dynamically adjusts wireless resource allocations by symbol unit. It provides power by symbol after observing downlink traffic real time.

### Standardization of 5G-Advanced energy saving technology

We acknowledge the effects the 5G network has on climate environment as 5G technology consumes far more energy than LTE. We continue to do research on the technology to reduce energy consumption in the network facilities, and seek to develop zero carbon network technology. Furthermore, to brace ourselves for an era of 6G network, we are implementing R&D activities to change the paradigm of wireless communications. At the "Evolution towards 5G-Advanced" workshop organized by 3GPP in June 2021, KT proposed the technology to save energy in the 5G mobile network, which was to promote sustainable ESG management of communications service providers and device manufacturers. We also contributed to the publication of a research report(TR38.864) on 3GPP network energy saving technologies in December 2022 by approving research projects and contributing to standard documents. KT is actively contributing to standard documents and securing source technologies to reflect the results of the research report in international standards. 5G-Advanced is the next generation 5G technology which will be a turning point for wireless technology and the reference point for a new wireless technology in the run-up to the era of 6G. We proposed low energy network for ESG management, efficient control of power consumption with AI, flexible resource management through cloud and virtualization, evolution of 5G eMBB(enhanced mobile broadband) such as improving the uplink performance and indoor coverage, and evolution of non-eMBB including technology tailored for B2B subscribers. We emphasized the necessity of reducing carbon emissions and the importance of ESG management in the mobile communications industry by introducing candidate technology for 5G-Advanced, that is, AI and cloud-based next generation 5G specifications to significantly reduce power consumption in the 5G network.

#### Low power network to realize carbon neutrality

We proposed improving power consumption at the stations, which accounts for 25% of OPEX, as the 5G-Advanced standard research project. We also proposed to define operational methods to identify energy savings in network operation and establish carbon neutral stations.

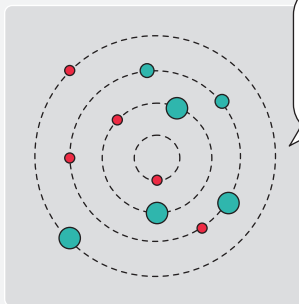
We suggested to develop the standards for stations by analyzing power consumption of station elements, identifying requests for improvement, and cutting energy consumption to the maximum while minimizing decrease in performance.

#### Efficient control of power consumption with AI

Mobile service providers adopted different 5G network structures(e.g. NSA and SA), which calls for an efficient management of network loads to control power consumption. Accordingly, we strive to improve network performance and efficiently control power consumption by managing wireless resources depending on network loads using the AI and ML technology.

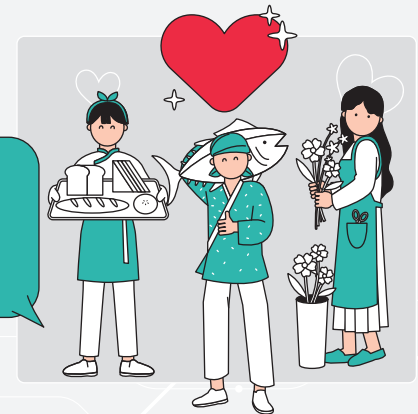
As different vendors have different equipment, and the measurement data types and methods vary, we proposed the standardization of the data to be applied with AI and ML and use of the standardized data to resource management.

## #4 Creating Social Value



What is the scope of KT's social value creation?

KT creates social value through a variety of activities, in addition to volunteering. Developing services for small businesses and investing in startups are among the social values that KT considers important.



It seems like KT's technology can be utilized in so many ways! So what social value does KT want to create?

We recognize that social value cannot be achieved through KT's efforts alone, so we have organized more diverse One Teams(local councils) to propose new tasks and pursue collaborations based on capabilities.



Ask Mi:dm, Hyperscale AI



send



## Growing Together

### 'Biz-Collaboration' for Supporting Startups

Business Collaboration is a shared growth program where KT and startups pursue joint business. The program is run jointly with the GCCEI(Gyeonggi Center for Creative Economy & Innovation). To facilitate the startup ecosystem, we identify outstanding startups, match each startup with a business department of KT to develop business and provide up to KRW 70 million. So far, 100 startups have been selected and provided with support for product and service development and sophistication, as well as market development. In 2022, the selections were made through paper and face-to-face assessments. The eighteen selected startups included 1MILLION Dance Studio(offline-based dance agency), FOODTECH(delivery POS), COGA Robotics(serving robot), TableManager(AICC), Sangwha(robot barista), DEVGRU(cloud gaming), Mooncademy(educational contents), DEEPBRAIN AI(digital human), QiSens(AI image analysis), BusinessOn Communication(NFT platform), Gleammedia Group(idol contents), Illuni(children's contents), Testbank(educational material), Second Syndrome(self storage), Silvia Health(mobile-based cognitive training), NdotLight(metaverse), PEOPLE AND TECHNOLOGY(accurate geolocation solutions), and MO-ON Company(motion detection). We will continue to identify well-performing startups and pursue cooperation to commercialize technology.

#### Performance of startup support

(Unit: Cases)

Program	2020	2021	2022
Business collaboration(joint projects)	14	23	18
Commercialization of joint projects	12	18	15
Joint project + investment in venture	1	1	5
Business development by the GCCEI(Gyeonggi Center for Creative Economy & Innovation)	299	699	879

### 'Jalnagage' for supporting small business owners



"Jalnagage(I wish your business success)," a big data-based support service for small business owners, will soon offer new services in 2023. These include the analysis of landline phone call data for customer calls to business sites, automatic evaluation of store locations, and marketing and delivery services, all of which are slated to be launched in the first half of this year. In addition, we are working with the Seoul Metropolitan Government to consult with individual stores on how they can increase sales based on big data analytics.

### 'Warm-hearted Technology Plus Challenge' for Supporting Social Ventures

KT's Warm-hearted Technology Plus Challenge is a program for developing social enterprises by sharing KT's digital technology and expertise to create and spread their impact. As part of the first project in 2021, KT selected and developed six social enterprises(ECOPEACE, OHFA Tech, Inc., AI Goodwill Voice, PAWINHAND, Say Global, and Media LAB). Under the second project in 2022, social enterprises that can enhance the environment, improve the digital engagement of vulnerable groups such as the disabled and elderly, and reinforce industrial safety(DeepVisions, brother's keeper, itgreen, DEEPLY, Helpspeaking, HHS) were selected in line with KT's ESG management policy. We made sure that the selected companies receive direct support and collaboration in terms of technology and business by connecting them to relevant departments at KT from the early stage of the project. Among the enterprises selected, Helpspeaking worked with KT's online live education platform Crewdy to launch a new online social training service for elementary students.

### 'ESG Fund' for investing outstanding ESG startups

KT created and established an ESG fund worth KRW 40 billion in 2022 in cooperation with two other telecommunications companies to invest in promising startups with technologies in the ESG field and identify items for cooperation to create synergies between the companies receiving investments and KT's business divisions. Using the ESG Fund, we have invested in 15 companies, including XL8 and Navifra, and will continue to support the growth of the startup ecosystem in the ESG field together with the other two telecommunications companies. We will also ensure that the in-house ESG startup support program and the ESG Fund create organic synergies with each other.



DeepVisions installed a prototype of its new system that measures fine dust and detects illegal garbage dumping based on vision technology at Suwon KT Wiz Park(baseball stadium) and conducted an ESG campaign with audience engagement with great success. As part of the third project in 2023, KT will focus on selecting and developing social venture companies with outstanding solutions and business capabilities for the digital inclusion.

## Communication and Collaboration with Local Communities

### Settlement of the Regional ESG Platform

In May 2021, the Gwanghwamun One Team was established with 14 businesses, local governments and non-profit organizations in the Gwanghwamun area. Membership had increased to 20 institutions as of December 2022. The team promotes a sharing society with a joint social contribution program based on corporate service and technology. Gwanghwamun One Team's initiative in ESG activities led to the creation of the Sejong One Team(46 organizations in Sejong City), Bonguisan One Team(nine institutions in Gangwon Province) and Daegu One Team(17 organizations in Daegu). The Gwanghwamun One Team launched the 'Gwanghwamun One Team Volunteer Corps' in the third year of its launch in 2023, and started volunteering in volunteer activities to take care of shrubs/flowers donated to the Sagye Garden when Gwanghwamun Square reopened in August 2022. Volunteer activities involving employees will be held on a monthly basis. The team has also worked to facilitate regional and economic growth through a sharing market and the Share Affection application for rebuilding regional economies in the aftermath of national disasters such as wildfires by helping small business owners to sell their products and local specialties. In the run up to the reopening of the Gwanghwamun Square in August 2022, the Gwanghwamun One Team donated 73 kinds of shrubs and flowering plants worth KRW 150 million to create greenery in the four seasons garden and held three cinema concerts to offer opportunities for young artists to perform their work. Other ESG initiatives include promoting the use of reusable cups as an eco-friendly campaign, donating blood and blood donation certificates and operating the "Sisigakgak" project to build a barrier free environment with enhanced accessibility for people with disabilities.



Gwanghwamun One Team Volunteer Activities

### Local Love Market

KT played a leading role in helping farmers and producers who suffered damage from a wildfire and solving issues in provincial areas in 2022 by opening up "hometown love markets" and "local love markets." KT operated hometown love markets both online and offline for farmers in 11 areas nationwide, selling a total of 600 local specialties and recording KRW 20 million in sales. Similar markets were held for the farmers in the Donghae region(Uljin, Donghae, Gangneung and Samcheok), which was damaged by wildfires, and KT provided a total of KRW 100 million in support by selling products worth KRW 80 million through the market and purchasing rice(KRW 20 million) from the damaged areas for donations to the underprivileged.

### Damage Recovery Support

KT offered timely support to the residents and firefighters who suffered from the disaster in 2022 and helped them to recover from the damage.

#### Details of support

##### March/On-the-ground support in forest fire-damaged Uljin

Goods : 193 kimchi fridges, 193 dishes, 193 units of other home appliances

##### June/On-the-ground support in forest fire-damaged Milyang

Toilet kits for victims	500 sets
Smart phone charging service	1 spot
Base station vehicles	1 spot
Refreshments	500 sets

##### September/Pohang and Gyeonggi Province damaged from typhoons and localized heavy rain

Toilet kits for victims	1,500 sets
Smart phone charging service	3 spots
Base station vehicles	3 spots
Refreshments	3,000 sets





Key Activities of the Gwanghwamun One Team in 2022		
In-house introduction of eco-friendly reusable cups(joined by six institutions)	"Shared market" for supporting areas damaged by wildfires and activating local economies	Blood donation campaign and donation of blood donor cards(395 cards)
Cinema concert for supporting young artists(three times)	Donation of shrubs and flowering plants to create greenery at the four seasons garden in Gwanghwamun Square(joined by nine institutions, donating KRW 150 million)	"Sisigakgak" project for the underprivileged

## Warm-hearted Companions

### Sarang(Love) Volunteer Corps

The KT Sarang(Love) Volunteer Corps, with the participation of KT employees, has been in operation for 23 years since its launch in 2001. Whenever a national disaster breaks out, KT, as a company representing the nation, joins hands with national aid agencies such as the Korea Disaster Relief Association and the Korean Red Cross and swiftly dispatches the volunteer group to the affected area for recovery work. Furthermore, KT has renewed its disaster response manual to clearly define the support system for each region and thereby conduct relief operations in a swift manner. In 2022, six regional headquarters held a joint labor-management event to share spring flowers with socially disadvantaged classes, and the four headquarters in Gwanghwamun, Bundang, Songpa and Umyeon-dong and their supporting departments engaged in relay volunteer activities with community service centers and local governments. Going forward, the members of the KT Sarang(Love) Volunteer Corps will put their hearts and minds into developing various representative social contribution programs.

Volunteer work by employees (As of 2022)


	Category	Unit	Result
	Working hours	Hours	13,629
	No. of volunteers*	Persons	3,838
	No. of beneficiaries	Persons	115,904
	Cost	KRW 100 million	13.5

\* No. of volunteers : Sum of all synagogue participants

### Reverse Hearing Loss

The Campaign to Reverse Hearing Loss is a long-term social contribution activity of KT aimed at providing support for the surgery or rehabilitation of hearing-impaired children so that they can recover their hearing and realize their dreams through the various rehabilitation programs of the KT Dream Classroom. Based on the essence of communication services that deliver sound, the campaign started in 2003 with the aim of contributing to society, and we held a ceremony at the Alumni Hall of Yonsei University this year to celebrate the 20<sup>th</sup> anniversary. At the event, we took time to look back on our past performance and conducted a hands-on class for hearing-impaired children with the hope that the beneficiaries and their families could have a useful time at the event. For the parents of such children, a Q&A session was held with professors of the ENT and child psychiatry departments at Severance Hospital. Through this session, the parents were able to get answers to their questions and formed a bond of sympathy with each other. In addition, artwork made by the children and graduates of the Dream Classroom was proudly displayed. KT, in cooperation with the Yonsei University Health System and Jeju National University Hospital, will continue to support the surgery and rehabilitation of children with hearing impairments and develop various programs for them so that they can build up their strength and realize their dreams in society.

No. of beneficiaries of the KT Campaign to Reverse Hearing Loss



20<sup>th</sup> anniversary celebrations

Category	Unit	2022	Total
Hearing rehabilitation(KT Dream Classroom)	Persons	3,239	23,719
Operation of cochlear implant, etc.	Persons	3	195
Hearing aids	Persons	9	322
Total	Persons	3,251	24,236



### Voice Finding Campaign



Loss of the ability to communicate with others leads to complete isolation from society due to a serious lack of interaction with the surrounding environment. After deep consideration of how to help people who have difficulties in communication with vocal language, the Mind-Talk application was created based on AI speech technology(speech recognition, speech synthesis) and the kt cloud platform. Out of the 300,000 deaf people in Korea, or 0.6% of the population, those who use sign language are unable to communicate with other people who use vocal language, either in person or remotely, without the help of a sign language translator. KT realized the Mind-Talk application by analyzing collected data on the physical features of deaf persons, such as their age, gender and oral structure, and the voices of their family members to create an individual "voice" for each of them. With the application, people who are deprived of the sense of hearing can communicate with others in person and talk over the phone. The application has been developed to support accessibility for people who have Lou Gehrig's disease or a brain injury and have difficulties in making voice utterances by allowing them to talk with others in their daily lives. The application helps those who had no way to communicate due to their physical or mental illness to fit into the world so that they can find meaning in life, engage in economic activities and enjoy the happiness of daily life.



## Warm-hearted Companions

### VR Contents on Workplace Manners for People with Developmental Disabilities

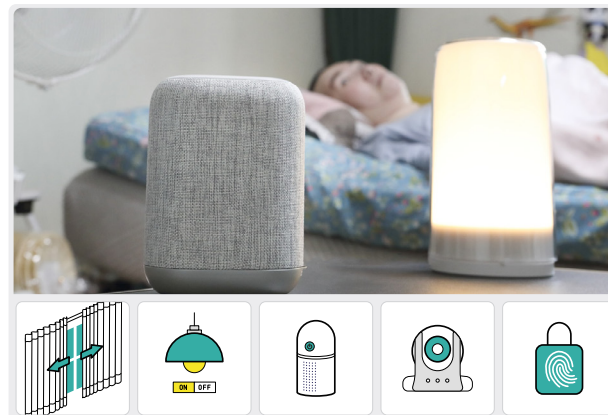
KT has developed VR contents on workplace manners for people with developmental disabilities. They can practice essential manners by reviewing cases that can happen in the real world reproduced in a virtual environment. They choose an avatar and virtually wash their face, brush their teeth, comb their hair and shave before going to work. They practice the etiquette to follow in the subway, elevator, office and restroom. Their weak points are checked on the list and they can focus on training to improve on these weak points. Bear Better, where people with developmental disabilities work, provides VR manners training to apprentice employees. VR manners training strives to help people with developmental disabilities find their weak points in the workplace and help them effectively adjust to the company. Currently, the VR contents for workplace manners are used at Bear Better, the Sungmin Community Rehabilitation Center, the Guri City Lifelong Education Center for Developmental Disability, and the Southern and Seoul Training Center for Developmental Disability, and the training will be expanded to training centers nationwide.

### Scholarship Program for Creativity and Innovation

KT has operated scholarship programs to nurture ICT experts of the future since 1988. In 2022, KT offered full scholarships to 87 students majoring in AI and IoT. Furthermore, KT provided leadership programs (ICT trends, AI ethics, lectures on ESG social ventures, ESG-related group/individual projects) to the scholarship students so that they could grow into the main engine for sustainable social development. During vacations, they, along with KT employees, took part in volunteer programs for vulnerable people. KT will continue to offer long-term support to nurture talented individuals who can contribute to society and develop programs for them to build necessary capabilities and character.

### AIoT for Severely Disabled Persons

KT created smart homes at around 10 housing facilities for severely disabled people by linking AI speakers and IoT devices in order to help them to live independently and fill the gaps in the social safety net. Before introducing the services, we visited target houses to identify different requirements depending on the disease and environment of the disabled person in cooperation with MLP, a venture of Yonsei University. With the services that we offered, they can control lights, electrical devices, curtains and doors with simple voice orders using AI speakers, enjoy the Genie Music service through the KT AI Care service and get help from KT Telecop in the case of an emergency. Such smart homes, where severely disabled persons can control their environment by themselves, have fostered independence and improved quality of life.



### Heartfelt Classical Music

KT's Heartfelt Classical Music program originated from "Chamber Music on Saturday Afternoon with KT" in 2009, with the aim to spread beautiful sound far and wide. The 14-year-old program is one of our cultural programs for employees and a representative social contribution activity. We have taken part in the Martinet Concert program, which is held at the Seoul Arts Center at 11:00 AM on the fourth Friday of each month since 2021, and conducted 23 performances for a total of 40,000 audience members. A unique feature of Heartfelt Classical Music is that it offers commentaries with the concert guide, providing a cultural experience through which the audience can feel closer to the music. Every month, KT invites family members of employees who have fulfilled the company's core values to the performance to support the cultural and arts activities of its employees and improve their pride and loyalty. So far, a total of 20,000 people have been invited. In addition, KT has invited visually impaired persons ever since the very first performance at Chamber Hall in Mokdong in 2014. Being recognized for these activities, we were accredited by the Arts Council Korea again in 2021. We will continue to enhance corporate social value by implementing more cultural activities.

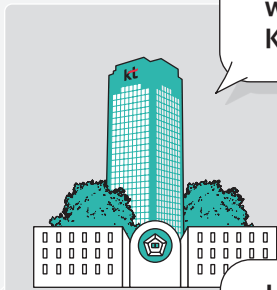




## #5 Internalizing Ethical Management



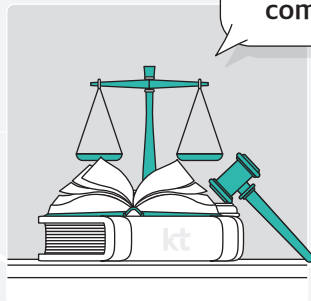
As one of the country's representative businesses, what are the principles that KT applies to its operations?



KT engages in ethical management based on the top five action principles: customer-centeredness, compliance, a return to basics, a sense of ownership, and social responsibility. All employees at KT are striving to prepare the company for sound and sustainable growth based on these principles.



I believe that for ethical management, we must first and foremost observe the principles of the law. So what efforts is KT making to ensure compliance?



KT has established a sound compliance system and enacted an anti-corruption code of conduct, and is conducting training and implementing pledges for all employees! Instead of simply checking compliance based on a checklist, KT aims to ensure that all employees acquire compliance knowledge and capabilities through compliance training and content, and naturally form a compliance culture in the organization.



Ask Mi:dm, Hyperscale AI



send

## Ethical Management

### Ethical Management Operation System

We engage in ethical management based on our top five action principles: customer-centeredness, compliance, a return to basics, a sense of ownership, and social responsibility. In April 2021, we announced an amendment to our Ethical Management Principles to reflect the Anti-Corruption Code of Ethics and ESG management activities. At the beginning of each year, all our employees are required to sign a pledge to put the above principles into practice. We have issued guidelines for practicing our Ethical Management Principles which define specific criteria for the right decisions and actions regarding ethical issues that employees face every day. Every year, we select and share information on the focus areas of inspections to make sure all employees follow the guidelines. Inspection cases are shared with executives during meetings, and with employees via the company board and online compliance library to ensure they do not violate standards or rules due to lack of awareness. Starting from 2023, we are sending letters to the management of KT and group companies on regulatory trends and compliance issues to enhance their awareness and interest in ethical management and compliance.

**KT's Ethical Management Principles**

We are pursuing the future based on the right decisions and ethical judgments to ensure that KT, a representative business of South Korea, continues to grow in the right direction. To that end, all of us are committed to customer-centeredness, compliance, a return to basics, a sense of ownership, and social responsibility as the guiding principles of ethical management.

Customer-centeredness	Compliance	Return to basics	Sense of ownership	Social responsibility
Pledge to think and act with a focus on customer-centeredness <b>1</b>	Pledge to observe the laws and regulations <b>2</b>	Pledge to stick to the basics and principles <b>3</b>	Pledge to identify oneself with the Company <b>4</b>	Pledge to fulfill social responsibilities and obligations as members of a business representing the country <b>5</b>
1-1. We shall respect customers and protect their information. 1-2. We shall create differentiated value that can create changes in the lives of our customers.	2-1. We shall act in a fair and clean manner, abide by the law, and follow the Code of Ethics. 2-2. We shall familiarize ourselves with and observe the Anti-Corruption Code of Conduct. 2-3. We shall pursue transparent management and protect the Company's secrets.	3-1. We shall make reasonable and objective judgements from perspectives that are conducive to the Company, and act responsibly. 3-2. We shall always draw a clear line between public and private matters and take the lead in fostering a sound and clean organizational culture.	4-1. We shall not be afraid of making mistakes. We shall aim for the best. 4-2. We shall pursue greater efficiency through self-regulation, empowerment, communication and collaboration.	5-1. We shall strive to protect shareholders' rights and profits and improve our employees' quality of life. 5-2. We shall value the environment, safety, and human rights and execute ESG management using all our capabilities. 5-3. We shall play the lead role in social contribution activities and pursue win-win growth with our business partners.

### Ethical Management Activities

Establishment of the criteria		Amend the ethical management principles, implement the employee pledge for the principles, and notify employees of focus areas of inspections
Internal audits	Planned audit	Inspect the relevant process in advance to prevent degradation of sales quality and prevent leakage of profits and expenses
	Regular audit	Reinforce discipline in the company by investigating cases of corruption and anomalies; Improve the system to prevent the recurrence of anomalies
Training and campaigns	Training	Provide ethical management training for newly inaugurated managing directors, deputy managing directors, CEOs of affiliates, and heads of teams; Hold get-togethers on site
	Campaigns	Clean-365 campaign, Clean KT campaign on holidays
Communication	Prevention activities	Operate the ethics management FAQ and the Clean 365 Center; Provide notice of audit cases; Operate a risk consultation channel for employees
	Whistle-blowing channels	Report any violation of ethics rules; Operate a hotline to the Chair of the Audit Committee

### Actions Against Violations

We are operating a whistleblowing channel for the reporting of ethical violations to foster a sound, ethical environment. Our employees and external stakeholders can report ethical violations, including cases of job-related irregularities or deception, acceptance or offering of bribes, money or valuables, misappropriation, or acts of dereliction. We ensure that all such reports are processed transparently, and that the identities of whistleblowers and the details of their reports are kept secret. We pay compensation of up to KRW 50 million for each verified case of whistleblowing. In 2022, a total of 475 cases of whistleblowing were submitted. After conducting thorough investigations, we took punitive steps against 19 employees. Furthermore, starting in 2022, we implemented interviews between the compliance supporter and auditees in the audit process to enhance the fairness of the audit procedure and the objectivity of the audit outcomes. To root out irregularities among stakeholders, including our contractors, and promote self-regulating practices, from 2020 we began conducting surveys and interviews with the employees of our contractors and distributors (about 5,000 companies). As such, we are taking the initiative in creating a healthy and ethical company culture.

#### Violations of ethical management and disciplinary actions in 2022

Violation	Type	No. of cases	Disciplinary actions			
Regulations	Business regulations	2	Suspension of work	1	Pay cut	1
	Financial regulations	2	Pay cut	1	Reprimand	1
Duties	Duty of integrity	2	Pay cut	2		
	Duty of respecting dignity	3	Suspension of work	2	Pay cut	1
	Duty of uprightness	8	Dismissal	2	Suspension of work	4
Protection	Information protection	2	Pay cut	2		
	Ban on sexual harassment and bullying	0	-			
Order	Respect for order within the organization	0	-			
	Abuse of one's position or job-related deception	0	-			

## Compliance Management

### Compliance system

KT selected priority areas for compliance management through company-wide risk assessment from 2019 to 2020, and established a system-based autonomous compliance system, including a virtuous cycle of systems, education, inspection, evaluation and improvement. In 2021, KT enacted the Anti-Corruption Code of Conduct, provided training for all employees, and received their signed pledge of practice. Furthermore, we created and implemented systems for Third-party Risk Assessment and Compliance Due Diligence to prevent corruption risks related to third parties including our partners since the end of 2021. In June 2022, we enacted the Code of Ethics for independent directors with the board's approval to reaffirm our commitment to ethical management and the duties of loyalty and care. In view of the increasing number of VOC complaints and illegal and expedient activities at agencies, "User Protection" was added to the key compliance control areas and on-site customer groups, and company-wide guidelines were strengthened in order to facilitate this newly added activity. We checked the preliminary review processes for donations, sponsorship and association fees to close loopholes, and introduced a sophisticated process to track preliminary review results in a systematic way. We also inspected the risk assessment and compliance due diligence on third parties to ensure its effectiveness, and the process was introduced into the contract system to prevent human errors caused by manual work. In August 2022, a Compliance Management page was created within the company introduction section of the company website to inform interested parties of our compliance organization and program, group compliance management and key compliance activities.

#### Pledge on anti-corruption and ethical management

I, as a director of KT Corporation, hereby pledge to remain aware of and comply with the Anti-corruption Code of Conduct and the Code of Ethics for independent directors established by the Company for compliance management and ethical management.

June 9, 2022

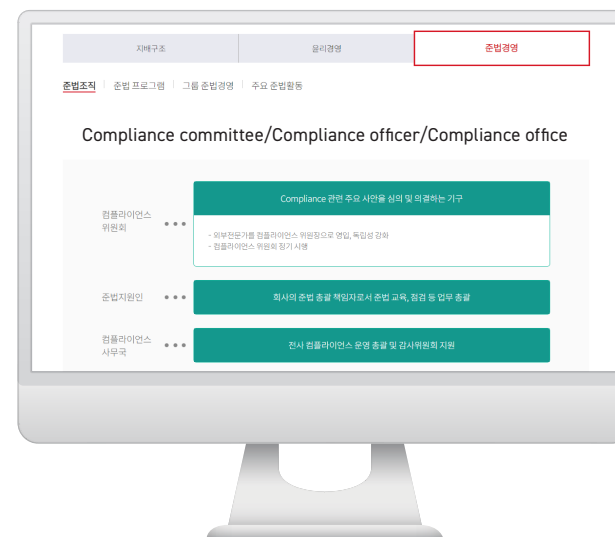
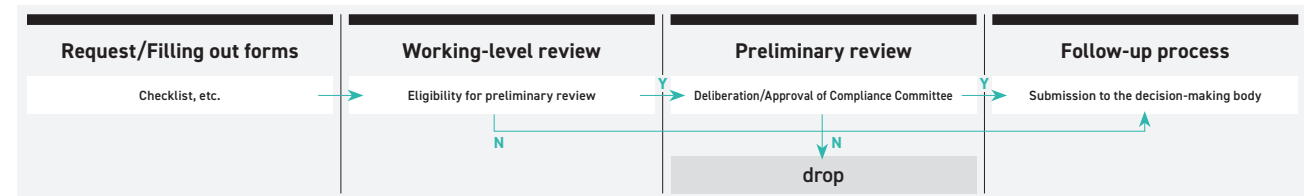
#### Pledge on the Code of Business Conduct for Executives

Chapter 5. Fair Trade and Mutual Growth

**Article 1** Executives shall be aware of and comply with the Anti-corruption Code of Conduct established by the Company for compliance management.

**Article 4** Executives shall not use their positions and interests in the company to treat employees of suppliers unfairly.

### Preliminary compliance review process for donations, sponsorship and association fees



### Nine Key Compliance Control Areas

<b>Anti-corruption 01</b> Establish/inspect the anti-corruption system, inducing the FCPA and anti-graft laws	<b>Fair trade 02</b> Prevent fair trade-related risks such as unfair trading, price collusion, etc.	<b>Subcontracts 03</b> Prevent violation of the Subcontract Act and extortion of technology/ideas from suppliers
<b>Information protection 04</b> Prevent personal information risks and leakage of business information	<b>Contracts 05</b> Prevent unfair sanctions such as limits on subcontracts and violations of contracts	<b>HR 06</b> Prevent risks related to the Labor Standards Act/Act on the Protection of Part-time Employees/Employment Equity Act
<b>Industrial safety and health 07</b> Prevent risks related to industrial accidents/disasters/fire, etc.	<b>Accounting/Tax 08</b> Strengthen internal control/ prevent risks related to inspections and tax	<b>User protection 09</b> Strengthen user protection as specified by the Telecommunications Business Act and prevent relevant risks

## Compliance Management

### Strengthening of the Compliance Capabilities of Affiliates

To implement its compliance system throughout the group, KT has implemented compliance due diligence and provided consulting for group companies since 2021. In 2021, we provided consulting with a focus on preventing risks and strengthening industrial safety. In particular, we reviewed compliance risks related to group company businesses, and visited them to have interviews and to experience their interactions with customers. Based on this, we identified potential improvements and proposed an optimal compliance system and ways to improve to each group company. To help them enhance the execution of the system, we provided references(best practices of KT and group companies) and coaching, and held a forum with the management and employees. We carried out consulting with affiliates and group companies again in 2022 and identified around 200 areas for improvement for which actions have either been taken or are being taken.

We provide newly acquired or established group companies with bespoke coaching to support them in establishing their compliance system as soon as possible. For common and key agendas of the group, we implement a theme-based review to minimize risks at the group level. We inspect group risks related to resource operation, fund management, and the use of written subcontracts, and provide guidance for improvements and set up systems to prevent the reoccurrence of risks. If the issues identified during consulting have the possibility of spreading and expanding into KT and other group companies, we make sure they are shared through the group committee responsible for compliance support and that immediate measures are taken.





★ Consulting

×

+

#### Method

- ✓ **Professional capacity building** : Hiring a lawyer dedicated to consulting, cooperation with a KT labor lawyer
- ✓ **Facilitation of cooperation with dedicated departments within KT such as the finance department**
- ✓ **Enhanced identification of potential on-site risks** : Regional body of group companies, due diligence on construction sites

Field trips to check equipment

Providing experience for light pole cabling

Due diligence on on-site risk factors

Due diligence on on-site organizations

+

★ Incubation of New Group Companies

×

#### Method

- ✓ **Support new(acquired/established) group companies in the compliance establishment process**
- ✓ **Cooperation with group companies based on their needs by offering coaching rather than merely providing diagnoses**

Example

##### New group company's needs for building a compliance system

- “Need to establish a compliance system early as the overall management infrastructure has to be newly set up”
- “Have no clear views on to-dos; wish to receive compliance guidance”

#### Coaching process

1 Compliance training

2 Identification of the current status of the group company/quick-fixes

3 1:1 coaching for working-level staff/drawing up to-dos

Understanding of the concept/Raising awareness/Forming a consensus

Establishing a coaching direction/Preemptive action to eliminate risks

Explanations on how-to/Drawing up appropriate to-dos, implementation



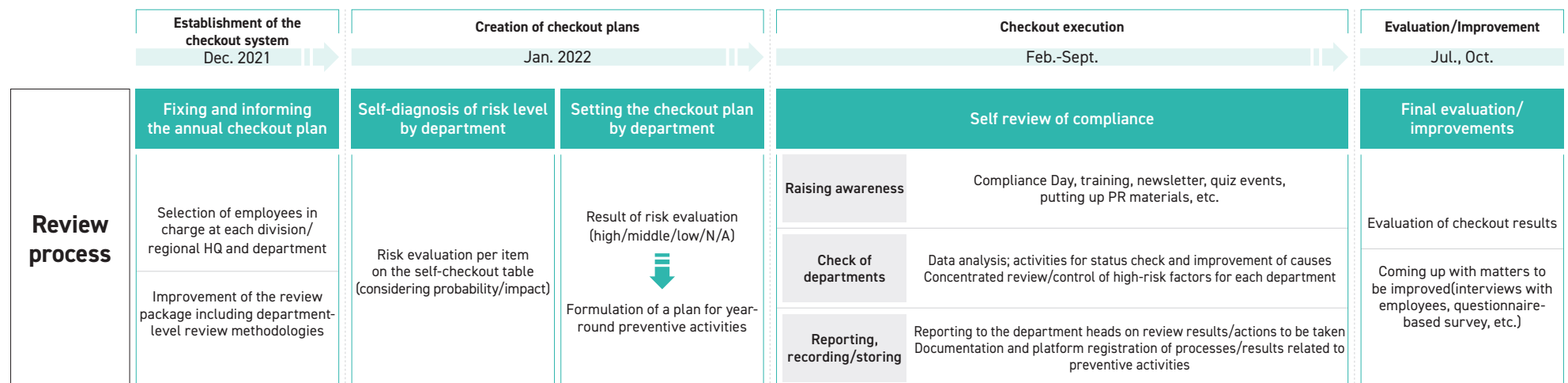
## Compliance Management

### Compliance Verification Culture

KT's compliance verification is a process of verifying the efficiency and effectiveness of activities such as system implementation, enhancement of awareness, and use of infrastructure. This goes beyond simply checking compliance with checklists. The goal is to confirm each individual employee's commitment to compliance and have them express such commitment. This process enables employees to obtain compliance knowledge and capabilities, and create a compliance culture within the entire organization.

As such, to maintain a virtuous cycle for the review system, KT operates its review process based on the PDCA(plan-do-check-act) model, the basic structure of the management system enacted by the ISO. At the beginning of each year, we establish an annual plan and review plans by department, based on which we implement a self-check, assess operational states and act on weaknesses. We are improving the review system constantly. We select high risk targets based on past accidents to manage risks by department and conduct stronger self-monitoring activities by department by implementing concentrated reviews and control at the division level.

### KT Compliance Review Process







## Compliance Management

### Activities for Stronger Compliance

#### Operation of a tool for constant compliance activities

Since its launch in 2020, our compliance platform has been updated with advanced features and is being used more widely as a tool for autonomous compliance. On the platform, policies/manuals on key compliance areas are introduced and exemplary cases and cases of audits and lawsuits are shared. In addition, the platform allows users to search companies subject to the Anti Graft Law and the Foreign Corrupt Practices Act to prevent employees from breaking the law by mistake while working. The mobile version of the platform can be used by employees in the field or outside, regardless of time and place, and allows them to raise their awareness by solving quizzes. In 2022, an automatic data inspection function was embedded in the compliance platform for self checkout by department. As a result, by reducing internal system interoperation and automating the analysis feature, the time to extract data has decreased significantly from 1.2 days on average to 20 minutes, greatly improving efficiency. We also provided the platform to other group companies to strengthen compliance activities.

#### Compliance web platform

Web platform	Automatic extraction of data	Convenient automatic analysis	Preemptive response following self review
			
Access to the compliance application for review by department	Selection of items for compliance review	Compliance review/management of past reviews	Check of detailed review results/response

#### Stronger compliance training contents

As the pandemic continues and contact-free training remains in place, we have strengthened our online training contents to effectively raise compliance awareness. Following up on the previous year, we provided a special program called "With Compliance" for employees of the KT Group via KBN, our internal broadcasting system, and made a video about the anti-corruption code of conduct for training. We made the video in English so that employees in our overseas offices can be trained. In 2022, employees were able to take mandatory and optional classes depending on their roles and responsibilities, enhancing both the convenience and efficiency of training. The number of KT employees who attended real-time training was 93,247(56 sessions) while it was 77,221 for video lectures.



#### Employee-centered training and meetings

Since 2020, our compliance officer has been visiting regional headquarters to have meetings with the executives and compliance departments and listen to their difficulties in person. The compliance officer encourages them and makes sure that the necessary improvement actions are taken swiftly. In consideration of the importance of compliance training for the executives and heads of departments, we evaluate their rate of participation in department level training. We have conducted six compliance training sessions for 449 personnel including board directors, newly appointed executives, branch managers, and heads of departments of group companies.



## Compliance Management

### Foundation for Fair Competition

KT is implementing compliance activities in the area of fair competition with the aim of minimizing violations of relevant laws. In the medium to long term, we will continue to enhance the pre-screening process to maintain a 100% pre-screening rate and train compliance experts in each department.

#### Detailed activities for major goals

Areas	Description of activities
Processing and advancement of preliminary review	The aim of this process is to have a legal review of fair competition conducted before the release, change or termination of any business or services. Over the past three years, we have met 100% of our review goals. We have also supplemented our fair competition manual and introduced user-friendly processes.
Employee fair competition training	All employees have taken online/offline courses on fair competition covering the Monopoly Regulation and Fair Trade Act, Subcontracting Act, Fair Agency Transactions Act, Telecommunications Business Act, etc.
Designation of employees responsible for risk management by department and capability building	Each department designates compliance managers. Persons responsible for risk management are assigned by the risk team of each division and by the regional compliance team. To strengthen their capabilities, they undergo external training related to fair trade and the recent trends and practices of the regulatory body, and legal enactments and revisions are shared with them.

#### Fair trade training status

(Unit : Persons)

Category	2020	2021	2022
On-the-job training	8,308	3,228	13,087
Specialized training	58	29	112
<b>Total</b>	<b>8,366</b>	<b>3,257</b>	<b>13,199</b>

### Strengthening of the internal accounting control system

KT received the grand prize at the Fifth Korea Accounting Awards in 2022 in recognition of its transparent accounting practices. Transparent accounting and a strong internal accounting control system are more than merely corporate duties. They enhance competitiveness, consolidate corporate value and give trust and confidence to customers and the market. Based on such a belief, KT has established a reliable financial process. Whenever a new business starts up, the concerned department must consult with KT's Accounting Department through the accounting inquiry system, allowing the Accounting Department to manage accounting-related issues from the early stage of the business. Responding to the demand for stronger certification for the internal accounting control system, the Financial Risk Management Team is being operated separately from the existing Accounting Team. A well-organized control and monitoring system and our efforts to improve accounting transparency through preemptive internal control will be the unique drivers for KT's growth into a digital platform company.

### Decisions of the regulatory body

In 2022, KT was fined by the Fair Trade Commission for violating the Act on the Consumer Protection in Electronic Commerce by discriminating among users when providing gifts to users subscribed to bundled products, and was ordered to correct the violation along with the fine by the Korea Communications Commission. In addition, KT was fined by the Personal Information Protection Commission for exposing user information. We will do our best to strengthen our fair trade system, improve our relevant business processes, and establish a system for effective communication to ensure that we do not violate the law in the future.

### Respect for Fair Competition

In 2005, we launched the Fair Competition Pre-Review Center, which handles matters concerning the introduction of new services and the signing of contracts, to prevent risks associated with unfair acts. In 2022, the center conducted reviews of 382 cases regarding fair competition issues. We are striving to raise employee awareness of the importance of fair competition. Our training sessions in this area include working-level training for all employees, professional training on fair trade laws for those responsible for compliance at the head office and regional headquarters, and special lectures. In 2022, we held both online and offline training sessions, depending on the COVID-19 situation, and conducted a company-wide workshop on fair trade to strengthen the capabilities of responsible staff by reviewing and having discussions on potential risks. The group also encourages all employees to strictly comply with relevant laws. Moreover, training was provided to affiliates to improve their capabilities regarding disclosures to the Fair Trade Commission.

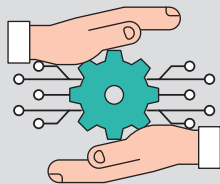
#### Implementing training on unfair competition

Categories	Trainees	Detailed training contents
On-the-job training	All employees	Compliance with fair competition laws (Collusion, agency law, subcontracting law, telecommunications business law, etc.) and cases of violation
Specialized training	Headquarters/ regional compliance departments	Disseminate information on the latest trends and violations related to fair competition laws and provide virtual case studies, training on Fair Trade Commission disclosures, and training at external specialized organizations (Seoul National University, Fair Competition Federation, etc.)

#### Number of fair competition pre-reviews

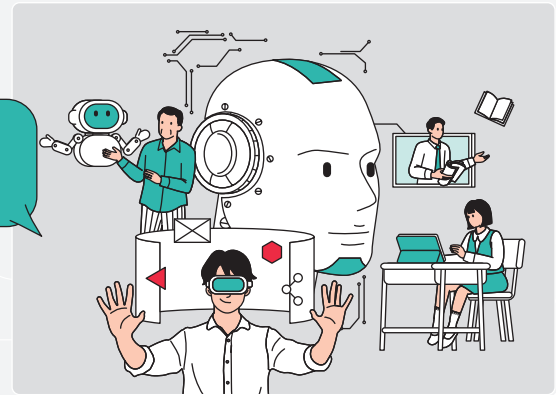
Category	2020	2021	2022
Fair competition pre-review rate   no. of cases	<b>100%</b> 212 cases	<b>100%</b> 187 cases	<b>100%</b> 382 cases

## #6 Expanding Digital Inclusion



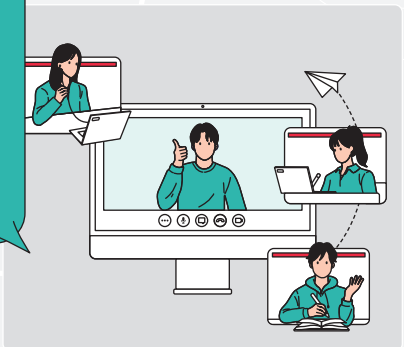
This is the first time I've heard the term digital inclusion. What does it mean?

Digital inclusion means making digital technology equally accessible and usable for everyone.



Why is KT paying attention to digital inclusion?

As a digital platform company, KT is carrying out activities to expand digital inclusion with a sense of responsibility. In three main axes, activities to bridge the digital divide to ensure that all members of society have sufficient access to digital, activities to strengthen digital capabilities to improve the digital literacy of future generations, and activities to prevent and reduce digital side effects that have recently occurred are in progress.



Ask Mi:dm, Hyperscale AI



send



## Bridging the Digital Divide

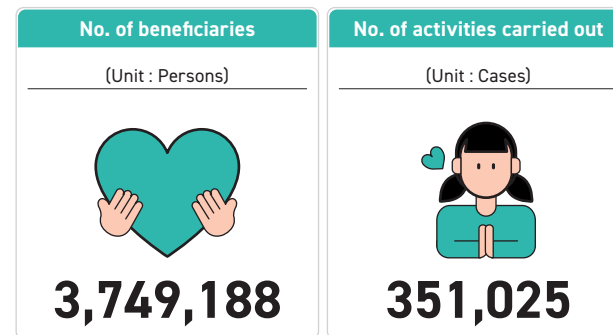
### KT's IT Supporters

IT Supporters is KT's representative social contribution activity. It is a pro bono group that has been operating for 16 years with the involvement of our former or current employees, who use their ICT capabilities to bridge the digital divide. In addition, as a leading company in overcoming dementia, KT provides ICT-based brain vitality education to dementia relief centers nationwide in cooperation with the National Institute of Dementia under the Ministry of Health and Welfare. In recognition of its cooperation in improving awareness around dementia, KT received the Minister of Health and Welfare Award. In cooperation with the Senior Human Resources Development Center, we have implemented a project to create jobs for senior citizens who have ICT skills in order to resolve social problems caused by a lack of caregivers for senior citizens. As a result, we were able to nurture about 800 smart managers. In addition, in cooperation with local governments, we have been nurturing women who quit their jobs for childcare to become digital lecturers and helping them rejoin the workforce. We have also provided online AI coding and metaverse training to students, for which we were certified again as an Excellent Education Donator by the Ministry of Education. As such, KT is not only striving to bridge the digital divide, but also contributing to job creation and dementia prevention by sharing our IT knowledge. Going forward, we will continue our efforts to create social value by actively launching social contribution activities based on the nature of our business.



#### IT Supporters

(2007~2022)



#### Nationwide IT sharing

(As of Dec 31, 2022)

Category	Beneficiaries	Rounds of activities	Beneficiary institutions
Elderly	32,148	2,484	639 institutions
Disabled	1,843	213	
Youth	19,910	1,750	
Multicultural	2,215	228	
Public	7,414	712	
Total	63,530	5,387	



## Digital Empowerment

### AIVLE School

KT AIVLE School is an educational program that KT, together with K-Digital Training under the Ministry of Employment and Labor, operates to foster Korean youth as "ready-to-work AI/DX talents" and contribute to job creation. Trainees receive a total 840 hours of theoretical and practical training over a six-month period and are given opportunities to participate in real-world projects at companies. Trainees can use the online platform to receive theoretical and hands-on training, accessible from anywhere in Korea. In addition, they can use KT's regional headquarters located in Seoul Metropolitan Area, Daejeon, Gwangju, Daegu and Busan as training locations. This training is free of charge, and experts working in the field demonstrate how to study and work. It also provides the trainees with an opportunity to acquire AICE(AI Certificate for Everyone), a private certification, and to receive awards through various competition programs. Furthermore, we are planning to provide support such as job fairs and mock interviews to help the trainees gain employment. The graduates of the first and second class of the KT AIVLE School voluntarily participated in various AI competitions and displayed excellent performances, winning the top award at the K-DT Hackathon organized by the Ministry of Employment and Labor two times in a row. More than 81% of the graduates of the first class are employed by KT Group, AI One Team member companies and startups, while the graduates of the second class are currently undergoing the placement process.



### National Human Resources Development Consortium

KT is contributing to a government project by taking part in K-Digital Training for nurturing digital talent, and carries out various programs for mutual growth and cooperation with small and medium sized suppliers to narrow the gap between large companies and SMEs. As part of such efforts, we have been taking part in the National Human Resources Development Consortium since 2003 to strengthen the job competencies and competitiveness of SMEs and offer training on must-know skills such as the management of wireless facility installation and line installation to the employees of SMEs.

#### e-mentoring

In October 2020, we launched KT e-mentoring, a contactless learning mentoring program provided under an agreement signed with the Seoul Office of Education. This program aims to help middle school students requiring study assistance and undergraduates suffering from economic difficulties due to the lack of jobs amid the COVID-19 pandemic. The class was carried out for four hours a week with three mentees assigned to each mentor. It focused on teaching basic academic subjects using our 'KT e-mentoring Edu Platform', and earned positive responses from the participants. In 2022, we extended our cooperation with government agencies such as the Seoul Office of Education and Seoul City Hall to double our support compared with 2021 and advanced the program by providing AI coding class as a pilot program in addition to basic subjects such as Korean, English and mathematics. In 2023, we will officially incorporate AI training into the program to gradually expand coverage to education offices across the country.

Amid the rapid spread of COVID-19, we provided high-quality online lectures and contactless VR safety training, which were greatly appreciated by the trainees. It has been honored to be designated as an autonomous joint training center for two consecutive years from 2021 to 2022. KT's National Human Resource Development Consortium project, which is entering its 21st year, will continue to support and lead the way in strengthening competitiveness in the digital sector based on KT's unique technology by expanding not only communication technology and safety training, but also courses to improve the AI capabilities of SME employees.

#### 2022 operation of e-mentoring

Beneficiaries	Mentoring
(Unit : Persons)	(Unit : Hours)
<b>665</b> college students <b>1,924</b> middle/high schoolers	<b>75,525</b> hours (28,619 times)

#### 2022 operation of e-mentoring campus

Beneficiaries	Mentoring
(Unit : Persons)	(Unit : Hours)
Matched <b>middle school students</b> affiliated with <b>102</b> local governments to <b>college students</b> in Seoul(199 college students, 536 middle school students)	<b>18,687</b> hours (9,635 sessions)

\*  
**e-mentoring campus** : A mentoring program launched in 2021 by Seoul City Hall and KT based on the e-mentoring model

## Elimination of the Negative Effects of Digital Technologies

### Digital Citizen Project

Digital technologies have given us many advantages in our everyday life, but also brought various types of side effects. KT embarked on the Digital Citizen Project to eliminate the emerging side effects of digital technologies and build a safe digital world.

To spread practices for the appropriate use of digital technologies, we have developed educational contents regarding digital citizenship and are working with various education offices to provide education to students and parents. In particular, we have utilized digital technologies such as KT GIGA Genie for educational contents to ensure an enjoyable experience and active participation by students. For KT employees who have to shoulder work and childcare responsibilities at the same time, we offer lectures and short online courses on how to educate their children using digital technologies.

Furthermore, KT recognizes that diagnostic tools are needed in addition to education to build the right digital utilization culture. Accordingly, we are developing a tool to diagnose digital citizen type [Digital Citizen Type Indicator(DCTI)] and competency [Digital Citizenship Assessment Tool(DCAT)] in collaboration with Ewha Woman's University's Future Research Institute. By identifying preferences in three areas of digital thinking, learning and activity, we have developed a tool that classifies preferences into eight types, two types for each area. We are currently working to enhance the completeness of the tool to measure and diagnose digital citizenship through various validation tests.

Along with the education for preventing the side effects of digital technologies, we also take action to support people suffering from the misuse of such technologies. Undesirable side effects of the digital environment such as excessive absorption in digital contents, digital sexual violence and cyber bullying often lead to damage in the real world. With that in mind, KT provides support for psychological counseling and legal consultation in cooperation with professional medical, counseling and legal institutions to help the victims return to everyday life.

