

**2021  
Kakao's  
Commitment and  
Responsibility**

kakao



## About this report

### Report Overview

Kakao publishes ESG reports to illustrate its commitments and responsibilities to make a better world on an annual basis. We transparently disclose our performance in the areas of environment, society and governance to reach out to stakeholders.

### Reporting Standards

This report was prepared in accordance with the international sustainability reporting framework of the GRI (Global Reporting Initiative): Core option, and with the Internet Media & Services Industry Standard of the SASB (Sustainability Accounting Standards Board) of the US. The financial performance contained herein was presented in conformity with K-IFRS, unless otherwise stated. This report also illustrates our activities that we implement to comply with the UN Global Compact 10 Principles in the areas of human rights, labour, the environment, and anti-corruption as a member of the UNGC as well as to attain the UN SDGs (Sustainable Development Goals).

### Reporting Period

This report spans the period between January 1, 2021 and December 31, 2021. Information prior to 2021 or in the first half of 2022 is partially included and such information was separately marked within the report. For quantitative performance, data over the recent three years (2019~2021) is provided to enable year-over-year trend analyses.

### Reporting Scope

Financial performance is reported on a consolidated basis, and non-financial performance focuses mainly on our domestic operations. A portion of the environmental and social performance data concerns the performance of our major affiliated companies.

### Assurance

To establish the credibility of the reporting process and the information disclosed, this report was assured by LRQA as an independent third-party assurance provider. The assurance engagement was conducted in accordance with AA1000AS Moderate Level, Type2.

### Inquiries on the Report

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E-mail: [esg@kakaocorp.com](mailto:esg@kakaocorp.com)

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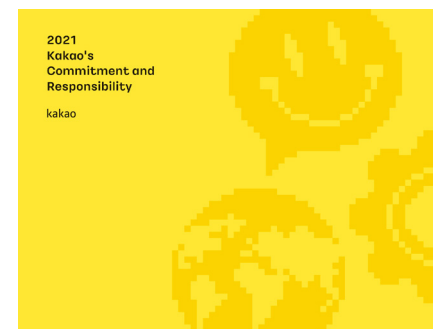
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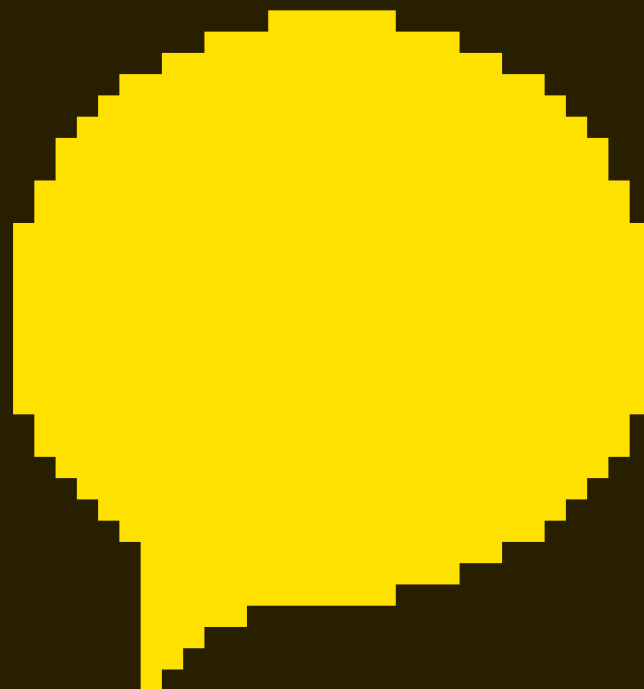
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### Cover Story

Kakao's digital technology for good to create value on the three pillars of environment, society and governance and its resulting positive social impacts are manifested through pixels that are the fundamental elements of digital display.

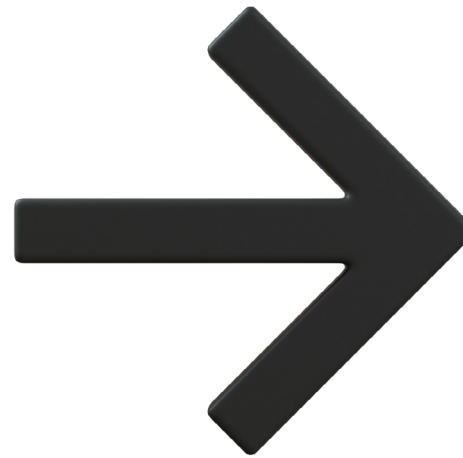
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Part 1

# Introduction

## Our Mission and the Kakao's Style



### Our Mission

#### One Kakao

**Making a better world  
with people and technology**

#### Kakao

**Building meaningful  
relationship  
beyond the connection**

### Kakao's Style

**Willing to Venture**

**Back to Basics**

**Trust to Trust**

**Act for Yourself**

**Tech for Good**



## A Message from the ESG Committee Chair



**Dear Stakeholders,  
My name is Sejung Choi, and I am truly honored to serve as the Chair of the Kakao ESG Committee.**

I would like to extend my deepest gratitude to our shareholders, investors, and users for their steadfast interest in and support for Kakao's journey in creating a better world with people and technology. My special thanks also go to our partners and Krew members who journey with us each step of the way.

At Kakao, we strive to operate responsibly under the oversight of our professional and independent Board of Directors (BOD). In 2021, we engaged in a wide array of activities to bolster ESG management which made it a particularly meaningful year. First, we stipulated our Corporate Governance Charter and

created the ESG Committee to lay the basis to establish sound governance. We also joined the UN Global Compact (UNGC) and committed to its 10 principles that form the core values of the United Nations in the areas of human rights, labour, the environment and anti-corruption.

We have been at the forefront of our industry in abiding by international human rights standards with our human-centered philosophy, and in protecting digital human rights as a digital platform business. We are the first private sector company in Korea to announce our Principle to Counter Hate Speech and specified the 'KakaoTalk Safety Guide' to help use the KakaoTalk messaging service safely and conveniently. We also pride ourselves on our inclusive initiative that delivers content to demographic groups such as children, teens and seniors, who are typically overlooked in the digital landscape, as part of our efforts to usher in a safe and sound digital experience for all.

Kakao has remained focused on further advancing its governance. We have decided to initiate our mid/long-term shareholder return policy to elevate shareholder value. Over the next three years, we will allocate 15%~30% of our non-consolidated free cash flow to pay cash dividends and to repurchase and retire our treasury shares. We have also upgraded our company-wide risk management regulations and reinforced our strategic risk management at the BOD level by establishing an integrated risk management system led by the BOD and the ESG Committee.

Our efforts will not be spared in sustainably expanding our Kakao Community. In January 2022, we organized the Corporate Alignment Center (CAC) to coordinate and support the strategic course of the Community from the sustainability viewpoint. The CAC will be front and center in our efforts to define the social role of the Community and raise ethical awareness of Kakao management and Krew members.

Last year, we made a special effort to heed the voice raised to the Kakao Community from several sectors of our society and engaged in ongoing dialog to explore actionable plans for win-

win partnerships as a leader of the IT industry. Our efforts to charter our future course ahead were backed by our conviction that the social demand for Kakao to promote mutually beneficial partnerships was not simply a rote task we are obliged to perform; rather, it forms a fundamental quality essential to our evolution into a truly great company. In fact, we are sure that such partnerships will generate a host of direct benefits to many partners and enable shared growth. This prompted Kakao and its major affiliates to leverage win-win partnership funds worth KRW 300 billion over the next five years to support small business owners & local partners, digital content creators, performing arts creators, mobility platform employees, startups & social innovators, local communities, and mobility & digitally underprivileged groups with an aim to promote the digitally-enabled sustainable growth of our partners.

We will stipulate our environmental principles to assume an active stance in environmental and climate change issues while declaring our 2040 Net Zero initiative and developing its implementation system to formulate our climate change response strategy in line with global standards. Rather than merely reducing carbon emissions generated from our business operations, we will ensure that our partners, users and all members of our society join us in advancing this global agenda of countering the adverse impact of climate change.

Kakao will remain committed to ESG management to grow hand-in-hand with wide-ranging members of our society, and will fully share the specifics of such operations through its Commitment and Responsibility Reports. This will help enhance the trust our stakeholders place in us and disseminate a culture of sound governance. We look forward to your unwavering interest in and encouragement for Kakao as we ceaselessly push the boundary to make a better world.

Thank you.

*Choi Sejung*  
**Sejung Choi**

## A Message from the CEO



**Dear Stakeholders,  
My name is Whon Namkoong, and let me offer  
my greetings as the CEO of Kakao.**

Kakao proudly presents its second Commitment and Responsibility Report to outline its broad range of activities implemented to make a better world with people and technology.

For two full years, the prolonged COVID-19 pandemic has completely redefined the meaning of 'normalcy' in our daily lives. Throughout it all, we have remained committed to applying our technology and services to the health and safety of the wider community. We proactively joined in on the social efforts to weather the pandemic: we developed a vaccine appointment system for KakaoTalk that displayed vaccine

availability and bookings in real time, and our Kakao Map helped pinpoint locations where COVID-19 grants were accepted and identify long wait times at screening centers. Our KakaoTalk and Daum Portal featured COVID-19 data boards to provide accurate up-to-date COVID-19 information, and our Newsbot channel was restructured to provide users with news containing specific keywords pertaining to the pandemic as part of our sustained endeavors to accelerate the end of the COVID-19 era.

As far as business goes, the protracted pandemic resulted in mounting uncertainties across the corporate landscape. Still, Kakao stayed the course to adapt to the rapidly shifting environment and pursue growth in the face of such crisis.

In 2021, our annual sales surged by nearly 48% and operating profit rose by 31% year-on-year. This is attributable to the solid performance of our existing business and the increasing sales of our new one. In our platform business, Talk Biz posted sales growth in line with the self-reinforcing sales effects of advertising products and the sustained increase of commerce transaction value. Meanwhile, the growth of mobility, finance and payment services led to more than 46% increase in sales. Our content business also did well, recording a nearly 50% year-on-year growth, as its global story platform expanded original intellectual property and witnessed increases in transaction value accordingly, along with the launching of new popular games.

In 2022, Kakao's motto for its next chapter in the decade ahead will be 'Beyond Mobile, Beyond Korea', and we will set sails for new horizons.

One of our goals is to tap into new and uncharted territories, including but not limited to the use of a text-based metaverse where we are already strong, and restructure our businesses and services to make them more accessible for advancement into the global market to pursue growth both in Korea and overseas. In partnership with Kakao Games, Kakao Entertainment, Kakao Piccoma and other Community

members, we will secure key global locations and generate synergy to raise our market share. This will pave the way for us to increase the share of our overseas sales from 10% to 30% within three years and to reach 40% and above in total overseas sales compared to the previous year within the Kakao Community this year.

In reflecting on our chosen path, it is clear that it afforded us the opportunity to relentlessly test our limits and successfully advance in multiple domains. With that being said, it does not mean that such achievement came without any growing pains. With our success comes social responsibility that we will assume as a company, and this is an honor that we never take lightly at Kakao. Undoubtedly, society expects us to pioneer the future with new technology and grow with varying stakeholders in the process. We vow to fulfill the expectations of our society through spearheading future-driven innovation and reaching beyond Korea into the wider global market to charter new territories.

Kakao will do its utmost to make a better world with people and technology. We would like to extend our heartfelt gratitude to our shareholders, investors, users, partners, communities, and Krew members for their unwavering interest in and support for our journey in realizing this vision. We also look forward to your encouragement in our efforts to better the world and to explore new global territories.

Thank you.

*Whon Namkoong*  
Whon Namkoong

## 2021-2022 Highlights

### Establishing our climate change response strategy and goal

In April 2022, we announced our 2040 Net Zero goal to join the consensus on the severity of the global climate crisis and the effort to respond to climate change. To reach this goal, we have set our mid-term plans to reduce our Scope 1 & 2 emissions by 40% and Scope 3 emissions by 17% by 2030.

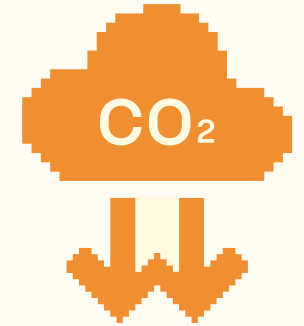


2040  
NET ZERO

### Joining global environmental initiatives

In April 2022, we published our SBTi<sup>1)</sup> Commitment Letter to officially declare our adoption of this initiative. We also endorsed the TCFD Recommendations to commit ourselves to transparently disclosing our activities to reach our Net Zero goal.

1) The Science Based Targets initiative was voluntarily launched to bolster firms climate action by presenting guidelines and methodologies to set science-based GHG emissions reduction goals in line with the goal reached through the Paris Agreement



SBTi, TCFD

### Conducting human rights impact assessments

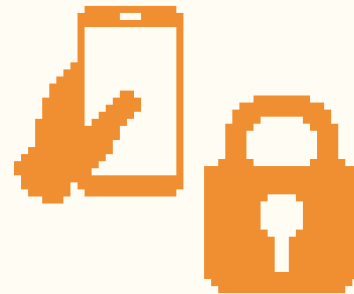
We stipulated the Kakao Business and Human Rights Statement in the first half of 2021 and joined the UN Global Compact to set the course for our efforts to protect human rights. In 2022, we analyzed potential human rights risks in consideration of our business characteristics and conducted human rights impact assessments on our Krew and some of our suppliers.



HUMAN  
RIGHTS

### Producing user safety guides

We published the 'KakaoTalk Safety Guide' and produced an easy-to-understand privacy policy from the viewpoint of children to communicate our user safety principles and proper responses to safety issues in an understandable manner.



KAKAOTALK  
SAFETY GUIDE

### Raising joint ESG funds

We invested KRW 10 billion to become the first in the ICT industry to participate in the creation of joint ESG funds. We plan to invest in innovative startups in the ESG area through the funds valued at KRW 20 billion in total, and made KRW 3 billion investments in three startups as of December 2021.



KRW 10 BILLION  
IN INVESTMENT

**Boosting win-win partnerships**

To build an inclusive ecosystem that promotes co-existence and co-prosperity for all, we will team up with the Kakao Community to raise KRW 300 billion in win-win partnership funds for the next five years. These funds will go to support small business owners & local partners, content creators, mobility platform workers, social innovators and other members of the ecosystem.



KRW 300 BILLION  
FOR THE NEXT  
5 YEARS

**Increasing compensation for our Krew**

In May 2021, we granted 472,900 shares of stock option to Krew members to incentivize them to grow along with the company. In 2021, Krew members who have been with the company more than 1 year were granted 200 shares, and for those of who worked less than 1 year, but more than 6 months, were granted 100 shares each. We plan to grant up to 600 shares of stock option to each Krew for 3 years beginning 2021. Krew will be able to exercise 50% of their stock option after 2 years of work, and 100% after 3 years of work.



472,900 SHARES  
IN STOCK OPTION

**Disclosing open source management services**

We made our open source management service OLIVE Platform available at the GitHub<sup>1)</sup> for all Kakao account users to use free of charge. As of January 2022, nearly 390 projects are under management.

1) World's largest open source community which provides internet hosting for distributed version control using Git



OLIVE  
PLATFORM

**Developing our shareholder return policy**

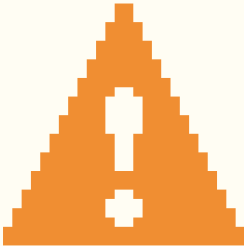
In February 2022, we stipulated our shareholder return policy to enhance shareholder value. For the next three years, 15%-30% of Kakao Corp.'s non-consolidated free cash flow will be allocated for cash dividends and treasury share buyback and cancellation.



15%~30% OF FREE  
CASH FLOW

**Establishing a company-wide integrated risk management system**

We specified our risk management regulations to manage financial and non-financial risks that may occur across our entire business operations in a more professional and efficient manner. To this end, we aim to appoint the CRO (Officer in Charge of Risk Management) responsible for the integrated company-wide risk management operations and effectively implement our risk management masterplan.



RISK  
MANAGEMENT

**Gaining global recognition for outstanding ESG performance**

Kakao joined the DJSI World Index for the first time in the Interactive Media, Services & Home Entertainment (IMS) industry, and was rated A in MSCI ESG ratings and Korea Corporate Governance Service's overall ESG ratings in recognition of exceptional ESG performance.



DJSI  
MSCI KCGS

# About Kakao

We define Kakao as a 'mobile life platform' that delivers innovative life services in the global mobile and internet market on the strength of our professional workforce, top-notch technology, competitive content, and large mobile traffic. Under our mission of 'making a better world with people and technology', we remain committed to enabling all that surrounds our lives to connect in order to create an environment that supports real-time interactive communication.

### Company Overview

As of Dec. 31, 2021

Name of Company



Kakao Corp.

Date of Establishment

Feb. 16, 1995  
(Merger with Kakao Corporation:  
Oct. 1, 2014)

CEO<sup>1)</sup>

Whon Namkoong

Headquarters

242, Cheomdan-ro, Jeju-si,  
Jeju-do, Republic of Korea

Employees

3,472 persons

### Financial Performance

As of Dec. 31, 2021

Sales

KRW 6.1367 trillion

Operating profit

KRW 594.9 billion

Credit rating

Korea Ratings AA  
(Rating outlook: Positive)

### Kakao Community<sup>2)</sup> Overview

As of Dec. 31, 2021

kakao<sup>3)</sup>

ENTERTAINMENT

kakaopay

kakaogames

kakaomobility

kakaobank

kakaopiccoma

kakaoinvestment

kakaoenterprise

Krust



kakaoventures

kakaobrain

KnWorks

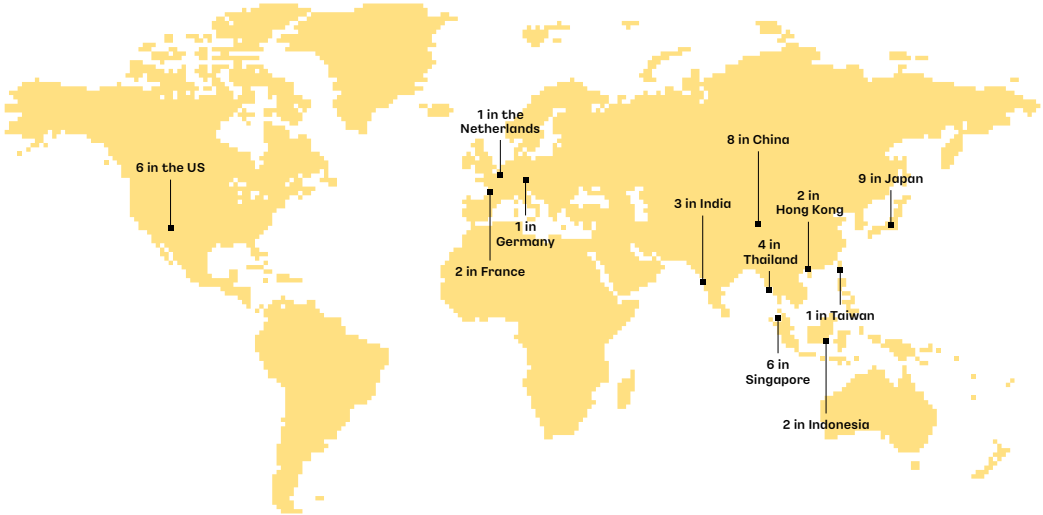
dktechin

Linkage Lab

### Global Network

As of Dec. 31, 2021

Kakao operates a global network consisting of 45 affiliated companies in 12 regions across the world.



1) Appointed as a director at the 27th annual general shareholder meeting held on March 29, 2022, and appointed as a new CEO at the BOD meeting held on the same day.  
 2) The Kakao Community refers to Kakao Group's affiliated companies. For more information on each member of the Community, please see page 91~92 of this report.  
 3) Kakao M and KakaoPage merged to created Kakao Entertainment on March 1, 2021, and the merger of Kakao Entertainment and Melon was completed on September 1, 2021.

# Business Portfolio


Kakao's service offerings span a broad array of sectors: we provide communication platforms that set the trend in emerging communication methods, content platforms that deliver great variety, game platforms based on social network channels, life platforms that realize the value of connectivity within our everyday lives, and search platforms that make desired information easily accessible.

## Platform Business

As of Dec. 31, 2021

**Talk Biz**  
 We provide a wide spectrum of mobile services with KakaoTalk, Korea's No. 1 messaging service, playing a central role. We generate synergy with diverse businesses within the mobile ecosystem centered around KakaoTalk.

**Portal Biz**  
 We deliver search, e-mail, community and other varying internet-enabled services with our portal website Daum. On the back of the extensive content available within the Kakao ecosystem, we deploy highly advanced search technology to provide users with satisfying experience




**KakaoTalk**  
 A life platform offering diverse services beyond messenger functionality to help build new relationships and make everyday life more convenient. Supports chats, voice talk, face talk, open chats, emoticons, e-mail, calendar, network drive, content, sharp (#) search, TV, wallet and other diverse services

MAU (Monthly Active User): 47.04 million in Korea, 53.45 million across the globe


**Kakao Bizboard**

**Kakao Bizboard**  
 Tailormade, performance-based display advertising that promotes users to purchase and/or book products or services through varying Talk Biz solutions — ad views, chats, and #tap searches — and premium landing pages, starting from the discoveries made within Talk on the basis of KakaoTalk's chatting tabs and other traffic generated by the major services of the Kakao Community




**Daum**  
 Korea's leading internet portal that serves as a platform to deliver search, e-mail, community and other internet-enabled services

MAU (Monthly Active User): 20 million on mobile, 25 million on PC




**KakaoTalk Gift**  
 Mobile messenger-based commerce platform business that enables users to give and receive gifts just as easily as sending messages to KakaoTalk Friends, offering specialized experience of 'gift giving' in consideration of its meaning and purpose of the basis of high accessibility and user convenience

MAU (Monthly Active User): 25.32 million




**KakaoTalk Store**  
 Differentiated shopping brokerage platform business that enables any seller to open a store and do business within the KakaoTalk app, while aligning with other KakaoTalk business solutions to encourage customers to voluntarily share feedback and make purchases

Annual transaction value: KRW 967.1 billion  
 Annual number of shoppers: 5.18 million




**Brunch**  
 Content publishing platform operated under the vision 'A space where writing becomes a piece of work' to provide pre-reviewed, high-quality content created by authors


Cumulative number of registered authors: Nearly 50,000 persons



**Talk Channel**  
 Message-based advertising business that offers content — information, brand news, promotions, and notices — through KakaoTalk messages



**Kakao Makers**  
 Service designed to help domestic manufacturers resolve challenges by way of group buying to preemptively identify demand and make-to-order to minimize inventory



**Kakao Story**  
 Service designed to share precious life moments with KakaoTalk Friends through an extensive pool of photos, videos and texts

**Mobility**

We put mobility service to work through each of life's moments and stages all while meeting the transport needs of our users, delivering optimized mobility for people, products, and services and rendering a more seamless and convenient user experience.



**Kakao T**  
MaaS (Mobility-as-a-Service) platform that delivers taxis, parking, navigation, chauffeurs, e-bikes, trains, buses and other varied mobility services

Cumulative number of subscribers:  
Over 30 million



**Kakao Navi**  
One-stop platform for car owners that provides 'Service for Car Owner' services including visits for maintenance, car washing, used car trading as well as 24/7 traffic flow analysis powered by extensive mobility data and rapid and accurate navigation services updated every minute

**Techfin & Finance**

Kakao Pay is creating never-before-possible financial services through technology that can be applied to every aspect of our daily life, and is extending its scope of business from money transfer and payment to investment and insurance on the KakaoTalk platform. Kakao Bank is a leading internet-only bank that leverages user-centric innovative technology, serving to truly create a new chapter in the history of banking.



**Kakao Pay**  
Everyday financial service platform for all that meets all user needs. Launched as Korea's first mobile easy payment to remove inconvenience experienced with existing financial activities across money transfer, billing, membership, investment, loans, and insurance

Cumulative number of subscribers:  
Over 37 million  
Annual transaction value:  
Nearly KRW 100 trillion



**Kakao Bank**  
Internet-only bank that delivers a new financial platform to bring innovation to conventional financial services through information technology and improved usability

MAU (Monthly Active User): 15.24 million  
Deposits & loans: KRW 30 trillion in deposits, KRW 25.9 trillion in loans

**Content Business**

As of Dec. 31, 2021

**Gaming**

We provide game services for users to enjoy with friends to enrich their experience and increase their interest and participation in such gaming activities. In launching a number of highly successful and popular games, we set the trend in the gaming market.



**Kakao Games**  
Delivering games and content within a wide array of genres in Korea and overseas across mobile, online PC and VR platforms



As of Dec. 31, 2021

**IP Business**  
 We deliver cross-genre content that blends music, drama, cinema and performances with musicians and actors/actresses through our global platform network that brings user enjoyment and experience to a whole new level.

**kakao ENTERTAINMENT**

**Kakao Entertainment**  
 <Music Content>  
 Securing an unrivaled market share in the domestic music distribution market and expanding the global distribution network through music planning with artists, production investment and distribution

<Video Content>  
 Accelerating the original video content business across mobile, TV, and cinema platforms with top-notch creators and talent

<Management Business>  
 Scaling up the management of artists and celebrities who are at the core of content IP and owning 80 or more original video content titles

**Melón**


**Melon**  
 Korea's leading music platform that has established market leadership through differentiated services that combine music and information technology since launching in 2004

Paid subscribers: Over 5 million  
 Total subscribers: Over 33 million

**KAKAO FRIENDS**


**Kakao Friends**  
 Offering differentiated brand experience to consumers with a variety of lifestyle products that have added a spark of joyful creativity since its inception as a provider of emoticons for the mobile messenger KakaoTalk

**Paid Content**  
 We hold Korea's largest library of original IPs and deliver seamless access to our webtoons and web novels.

 **KakaoPage**  
 Korea's leading story entertainment platform that provides a wide range of content services, including webtoons, web novels, and books

 **Kakao Webtoon**  
 Carrying on the legacy of 'Daum Webtoon', who first introduced webtoons to the world, Kakao Webtoon launched globally in June 2021 and continues to expand to new markets

Based on KakaoPage & Kakao Webtoon  
 Cumulative number of original IPs: Nearly 10,000  
 Number of IPs delivered overseas: Nearly 2,500

 **Piccoma**  
 Manga subscription platform operated by Kakao Piccoma, Kakao's Japanese subsidiary

MAU (Monthly Active User): 8.3 million

**High-tech**

**B2B-AI**  
 We leverage AI technology in our home and office life to build a more convenient and flourishing world. We combine our accumulated AI, big data, cloud and search technology with service operation knowledge to drive the evolution of innovative business services.

**kakaoenterprise**

**Kakao Enterprise**  
 <Kakao i>  
 Integrated AI Platform that encompasses AI technologies spanning from image/audio recognition to data analysis, which are then applied to services including Daum news/search, Kakao Map, Kakao T, KakaoPage, and Kakao TV

<Kakao Work>  
 Integrated Business Collaboration Platform equipped with AI/search technology and highly essential business functions

<Kakao i Cloud>  
 Comprehensive Cloud Platform for Businesses that connects technologies and platforms based on Kakao's expertise in Cloud services

<Kakao i Connect Talk & Connect Center>  
 AI-based customer service platform that combines Kakao Talk channels, chatbots, and voicebots with customer centers across varying industry sectors

**kakao brain**

**Kakao Brain**  
 AI research company that develops technologies ranging from meta-learning to natural language processing, thereby contributing to the growth of AI ecosystem

 **Klaytn**  
 Public blockchain platform of Krust Universe providing intuitive development environment and high performance while overcoming UX limitations in present blockchain platforms

**Klip Drops**

**Klip Drops**  
 Digital art and NFT marketplace operated by Ground X to bring digital arts and collectibles to everyone's reach



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Part 2

## Our Commitments to a Better World

# Kakao's Commitment and Responsibility to a Better World

## Kakao's commitment and responsibility to make a better world with digital technology for good and positive social impact

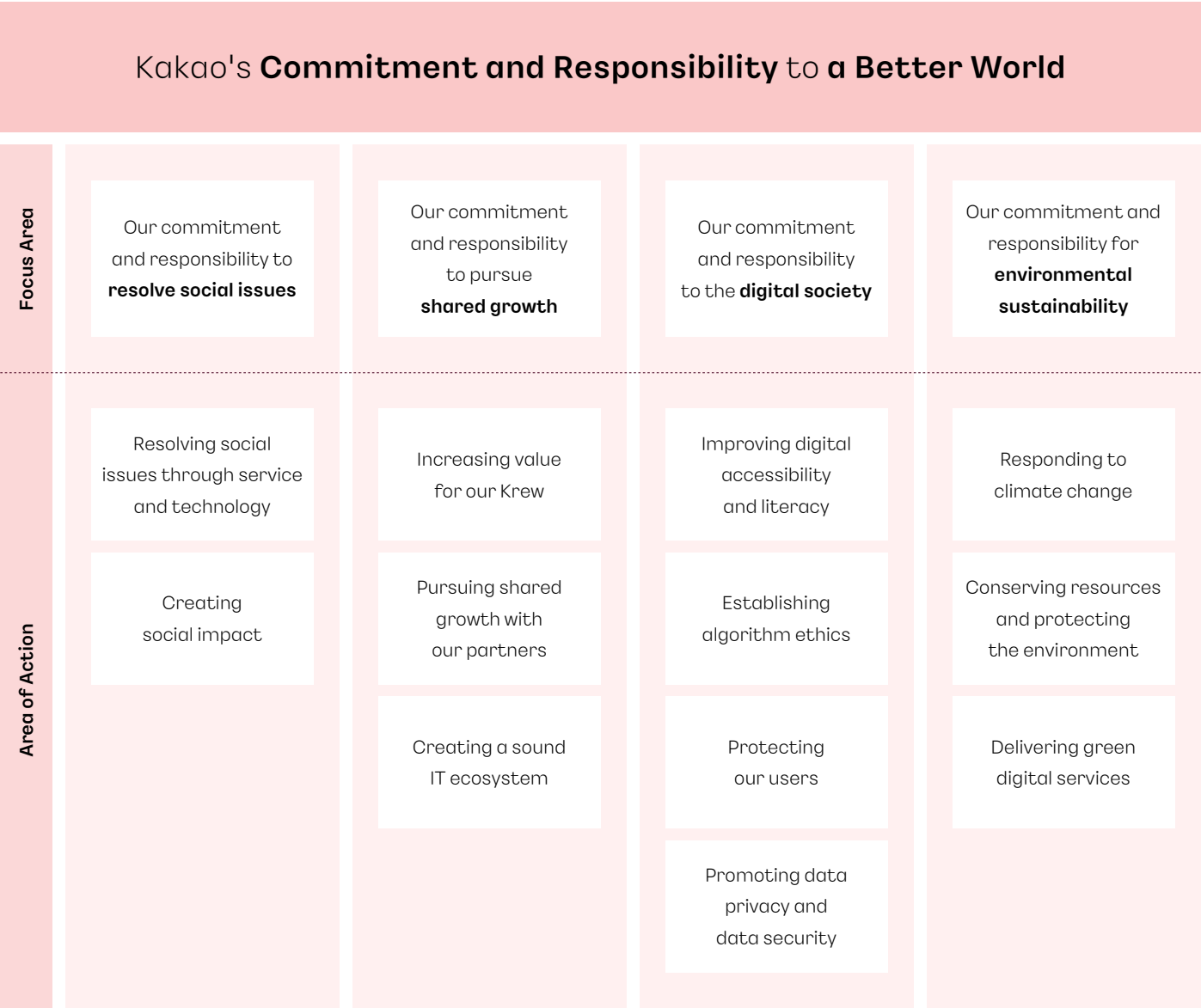
Kakao believes that when a company's operations are based on good faith, it can surely bring positive change in the world and serve as an agent of change to help resolve social challenges.

To take our distinctive Kakao Style approach to addressing social issues and bolster our role as an agent of creating new value, we presented our first ESG report in May 2021 and disclosed 'Kakao's commitment and responsibility' to stakeholders, opening a second chapter in our history to initiate our journey into the decade ahead.

In reflecting on our chosen path, we have achieved remarkable growth. This, however, was not without growing pains, and with success came social responsibility that we should assume as a company. This report serves to fully disclose our activities implemented and achievements made for the past year to fulfill our commitment and responsibility that we shared with our stakeholders. In doing so, we reaffirm our commitment to pursue shared growth with stakeholders and drive future-driven innovation to fulfill our social mandate.













### Kakao's Commitment and Responsibility to a Better World

- Kakao takes its distinctive Kakao Style approach to 'resolving social issues'.
- Kakao pursues 'shared growth with its stakeholders'.
- Kakao fulfills its 'responsibility in the digital society'.
- Kakao takes the lead in 'protecting the environment'.



<Milestones Reached in Fulfilling Kakao's Commitment and Responsibility>

▲ Laid the basis to implement the plan ■ Taking action as planned ● Generated outcomes from activities being undertaken

| Commitment and Responsibility |  | Action Plan  | 2020-2021 Achievements  | Progress Status   |
|-------------------------------|--|--|---|---|
| Resolution of social issues   | Resolving social issues through service and technology | Pursue meaningful social change based on user engagement   | Develop programs to resolve social issues by leveraging Kakao's technology and engaging users                               | <ul style="list-style-type: none"> <li>· Built wider internal consensus for service development</li> <li>· Identified services that contribute to resolving social issues and prepared for their launching</li> </ul>    |
|                               | Creating social impact                                 | Measure and manage outcomes generated in resolving social issues   | Gradually expand the measurement of outcomes in resolving social issues and the scope of target programs                    | <ul style="list-style-type: none"> <li>· Measured and managed the social value generated by the Harmonious Digital World program</li> <li>· Worked to expand performance measurements and management programs</li> </ul>   |
| Shared growth                 | Increasing value for our Krew                          | Promote human rights and work conditions for Krew  | Lay the basis to advance human rights management and develop systems to motivate Krew and increase value for them           | <ul style="list-style-type: none"> <li>· Stipulated the Kakao Business and Human Rights Statement</li> <li>· Established a human rights due diligence and impact assessment process</li> <li>· Provided Krew with human rights training</li> <li>· Granted stock options to Krew</li> </ul>    |
|                               | Pursuing shared growth with our partners               | Improve partners' capacity and disseminate ESG along our supply chains   | Develop systems to protect CPs (Content Producers) and support their growth, and disseminate ESG awareness among suppliers  | <ul style="list-style-type: none"> <li>· Offered copyright training to emoticon creators</li> <li>· Created an organization dedicated to responding to global content piracy</li> <li>· Stipulated the Supplier Code of Conduct and requested their consent to comply with the code</li> <li>· Signed the ethics practice agreement with suppliers</li> </ul>  |
|                               | Creating a sound IT ecosystem                          | Create a wholesome IT ecosystem by sharing technology and know-how   | Host developer conferences to share Kakao's technology and know-how and disclose our open source assets                     | <ul style="list-style-type: none"> <li>· Hosted if Kakao conferences</li> <li>· Launched OLIVE Platform as an open source management service</li> <li>· Pursued mutual cooperation and opening in the areas of AI, ESG and intellectual property rights in partnership with SKT</li> </ul>   |
| Digital society               | Improving digital accessibility and literacy           | Support an environment where digital benefits as well as information and technology are brought within the reach of everyone | Identify areas in need of accessibility improvement across overall services and make improvements                           | <ul style="list-style-type: none"> <li>· Improved KakaoTalk's accessibility for people with visual/hearing impairments</li> <li>· Achieved the Web Accessibility mark for Kakao's corporate website</li> <li>· Provided financial services tailored for teens and seniors</li> </ul>   |
|                               | Establishing algorithm ethics                          | Ethically use AI technology  | Establish Kakao's algorithm ethics and develop implementation tasks   | <ul style="list-style-type: none"> <li>· Added provisions on the protection of children and teens to Kakao Algorithm Ethics</li> <li>· Established the Principle to Counter Hate Speech</li> <li>· Stipulated and distributed ethical emoticon creation guides</li> </ul>   |
|                               | Protecting our users                                   | Prevent the violation of user rights that may occur in the course of service use   | Distribute guides to prevent the violation of service user rights and introduce prevention systems                          | <ul style="list-style-type: none"> <li>· Created the KakaoTalk Safety Guide</li> <li>· Operated the Safe Digital World website</li> <li>· Worked to provide stronger protection for the rights of users posting comments</li> </ul>    |
|                               | Promoting data privacy and data security               | Comply with domestic/international regulations and prevent data breaches   | Boost governance for personal data privacy and data security  | <ul style="list-style-type: none"> <li>· Managed and oversaw the issues of data privacy and data security at the BOD level through the ESG Committee</li> <li>· Produced an easy-to-understand privacy policy from the viewpoint of children</li> </ul>    |
| Environmental sustainability  | Responding to climate change                           | Minimize climate impact in line with GHG emissions reduction targets   | Lay the foundation for a company-wide environmental management system and set mid/long-term GHG emissions reduction targets | <ul style="list-style-type: none"> <li>· Achieved the ISO 14001 environmental management system certification</li> <li>· Set the 2040 Net Zero goal and action plans</li> </ul>    |
|                               | Conserving resources and protecting the environment    | Operate eco-friendly offices and data centers  | Build new offices and data centers with eco-friendly considerations   | <ul style="list-style-type: none"> <li>· Invested to achieve the LEED green building certification for Pangyo Alphadom City</li> <li>· Adopted eco-friendly designs for the Ansan data center</li> </ul>   |
|                               | Delivering green digital services                      | Provide eco-conscious services   | Develop additional eco-conscious services and operate them  | <ul style="list-style-type: none"> <li>· Built broader internal consensus to develop additional services</li> <li>· Explored possibilities for long-term services</li> </ul>   |

# Technology Innovation for Shared Growth

## Kakao envisions a world where



we open unlimited possibilities for all with the help of **AI**



we deliver lightweight and fast services in the **cloud**



we leverage **mobility technology** to render our cities smarter by offering convenient and safe mobility for all



we harness **blockchain** to lead a trustworthy digital ecosystem.

## Kakao's technology innovation

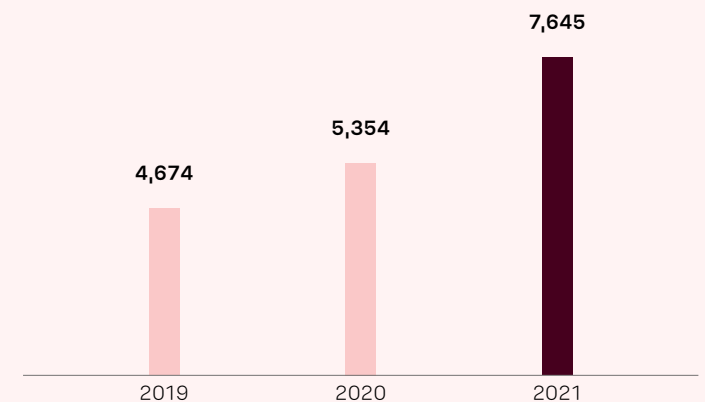
'A better world created with technology and people'

In pursuit of technology innovation, Kakao aims to render our daily lives even more convenient and create a transparent and safe internet community. The ultimate goal of our technology is to build on the technological achievements we make along this journey to create a business ecosystem where we promote shared growth with Kakao users, our partners and all members of the development ecosystem.

We believe that AI, cloud, mobility technology and blockchain technologies are the ones that will have a significant impact on our present and future business operations. R&D organizations at Kakao and the Kakao Community are studying these technologies, and we engage in joint technology developments, technology partnerships, startup investments and industry-academia collaborations with wide-ranging partners. We will continue with our investments and endeavors to develop the world's top-notch technology. This will be accompanied by sustained efforts to share what we achieve with domestic/international developer communities and seek shared growth.

R&D Expenses

Unit: KRW 100 million





# Kakao opens unlimited possibilities for all with the help of AI.

## AI Recommender System

AI (Artificial Intelligence) refers to technology that enables computers to mimic human cognitive activities and artificially perform such activities, and spans all of the situational recognition, logical thinking and creative performance abilities. AI-enabled recommendations are widely accepted in our everyday lives in line with the accelerating pace of information generation. Recommendation systems are a type of information filtering system that helps users find what they want and diversify their consumption patterns to even discover new tastes previously unnoticed. Such recommender systems are gaining greater importance amid the rapid growth of information volume, and their technology is advancing further in line with the evolving AI-enabled technology. Kakao deploys recommender systems for most of its service offerings and delivers users a new and better information consumption experience.

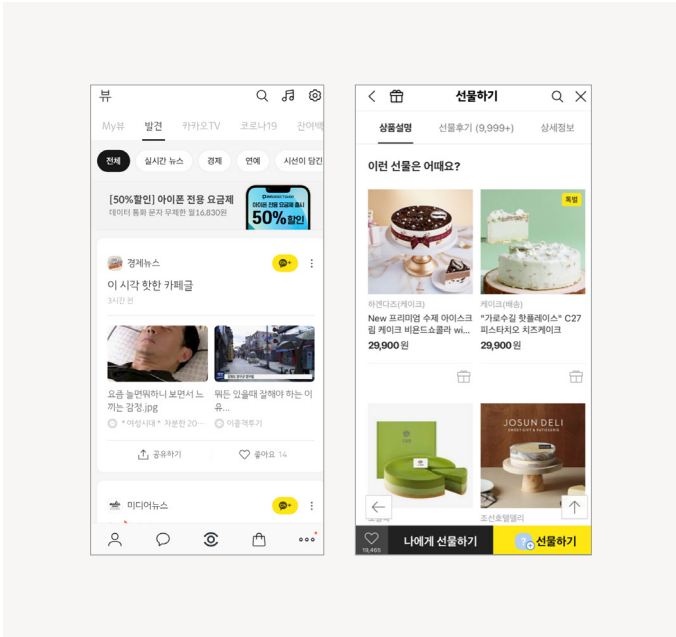
## Evolving Recommender Systems in Our Daily Lives

Recommender systems increasingly make significant contributions to any given service. Most of the information that users encounter while using services is exposed through such systems, which naturally changed the role of recommender systems. While their role was to improve short-term user satisfaction measured by the number of clicks and length of stay, their focus has shifted to long-term satisfaction factors such as revisit/repurchase rates. To bring greater long-term satisfaction to users, Kakao's recommender system team is developing indicators to quantify such experience and studying AI-assisted recommendation algorithms. Research is underway to look into methods to improve the diversity of recommendations while not compromising users' short-term satisfaction and to combine recommendation algorithms that have differing characteristics.

## Kakao's AI Recommendations in the Future

Our current AI recommendation service is the result of combining all the recommender systems produced through our R&D efforts. In addition to content-based filtering and collaboration filtering which are generally known as the core technology of recommender systems, our service harnesses virtually all technologies required to present recommender systems in their finished product form for user applications. As the advent of deep learning opens up even more opportunities for AI-enabled technology, this will render the content consumption experience delivered by Kakao AI recommendations more proactive. It will deepen our understanding of the context surrounding user experiences and bring greater joy to individual users in discovering their newfound tastes.

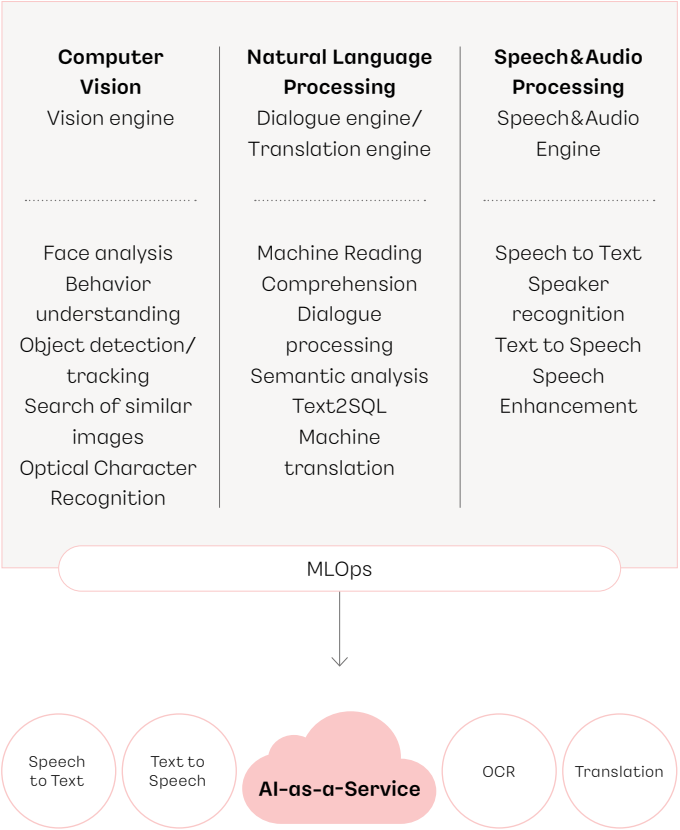
### <Kakao's Recommendation Service (Kakao View's Discovery tab, KakaoTalk Gift's 'How about This Gift?)>



## AI Computer Vision, Natural Language & Voice Processing Technology

Kakao Enterprise has built an AI technology portfolio which includes computer vision to perform human-like vision functions, natural language processing for machines to understand and analyze natural human languages, and speech&audio processing to understand and generate human voices.

### <Kakao Enterprise's Areas of AI Technology>



AI-as-a-Service to use Kakao i Engine without the need for separate development processes

**Kakao i Connect Center as an AI Customer Center Platform**

Kakao Enterprise provides the Kakao i Connect Center as a customer center service that leverages AI technologies in the areas of speech-to-text, text-to-speech and natural language understanding. This AI-enabled customer center is able to respond to customer needs 24/7, at any given time and irrespective of holidays. AI chatbots, callbots, and counselor assistant bots support counselors to deliver optimal customer services, and take on the role of these human counselors after their work hours.

Harnessing the exceptional speech recognition and natural language recognition capabilities owned by Kakao Enterprise, this service provides AI-assisted services just as human counselors do and is able to carry out natural-sounding conversations by demonstrating outstanding performance in recognizing word errors or newly-coined terms spoken by customers. Not only does this customer center conduct counseling based on previous counseling records, it also sends alerts through KakaoTalk before and after counseling to further improve customer convenience. Such technological capabilities help facilitate users' service experience and elevate the efficiency of counseling work for businesses.

**<Core Competitiveness of the Kakao i Connect Center>**



Complete omni-channel delivery



AI-based high-performing service



Fast and flexible service introduction

**#DFLO, a Dialogue Engine for Real World Natural Sounding Conversations**

The Kakao i Connect Center is operated based on DFLO, an advanced dialogue engine independently developed by Kakao Enterprise. DFLO supports the Full Duplex<sup>1)</sup> environment whereby voicebots carry out natural conversations even when customers interrupt to ask another question while voicebots are answering, the question raised by customers, improving the effectiveness of counseling operations.

**Releasing a Super-Giant AI Model**

A variety of services are emerging recently by applying GPT-3, a large-scale language model developed by the global AI laboratory OpenAI. GPT-3 is a natural language model powered by deep learning with an extensive amount of data sets and parameters. This AI model which supports natural language-based communication between humans and AI is recognized for its achievement in pushing the boundary of deep learning and ushering in an era of next-generation AI. Kakao Brain developed KoGPT which explores unlimited possibilities of GPT-3 in Korean and shared it at GitHub, the world's largest open source community.

**Unveiling KoGPT, Korean-based Super Giant AI Language Model**

Kakao Brain's KoGPT is a Korean version of GPT-3 based on Korean data consisting of 6 billion parameters and 200 billion tokens as of November 2021. KoGPT is capable of performing all tasks utilizing language, including but not limited to judging whether a given sentence is positive or negative, rephrasing a long sentence in one line, predicting a conclusion by inferring a sentence, and answering questions by understanding the context. It also supports context-dependent automatic writing to complete highly-sophisticated language tasks, which can be applied to wide-ranging areas. For instance, KoGPT is able to analyze shopping mall product reviews, summarize them in one line or judge whether they are positive or negative. Also, it is possible to make KoGPT learn college textbooks, understand the context, and give a smart answer. Kakao Brain has shared KoGPT as open source to make this technology easily accessible by universities and startups. Kakao Brain plans to continuously release super-giant Korean AI language models to widely share its innovative technology, contribute to the domestic IT industry and its R&D work, and resolve a range of social issues in so doing.

**# Unveiling minDALL-E, a Massive-scale AI Multimodal Model**

minDALL-E was made public by Kakao Brain in just one month after it unveiled KoGPT. This multimodal AI model is capable of understanding texts and images simultaneously. When a user enters a text command, this image generation model delivers desired images in real time.

Command:  
Draw a [melting watch hung on a tree] in Salvador Dali's style.

Result values:



1) An interactive communication system which transmits and receives data simultaneously to create an environment to engage in natural real world conversations with AI



# Kakao delivers lightweight and fast services in the cloud.

## Cloud Computing Service

Cloud computing refers to a way of accessing databases, software, servers and other IT resources through the internet. Kakao is committed to the evolution of cloud technology to allow more people to easily create services and automate operations.

### Operating Serverless Cloud Platform

Serverless computing allows users to automatically perform desired functions when specific events occur indicating a change in service status without having to consider server management. Kakao is developing the event processing service to collect event data from Kakao's all cloud services and process them to ensure agility in service delivery to their intended application.

### Developing Time Series Database

We operate a proprietary-owned time-series database to address difficulties in failure recovery and distributed processing in a range of metric and log management systems of event-based cloud computing. The database enable automatic failure recovery and distributed processing to improve overall functionality and reduce operational costs.

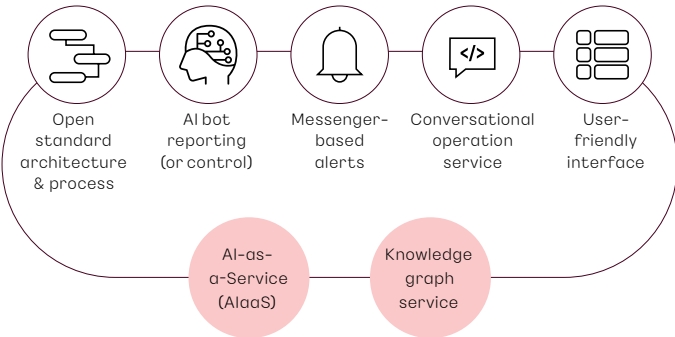
## Developing Hardware for Optimal Cloud Services

Kakao Enterprise continues with in-house R&D efforts on hardware as well as software to equip data centers with customized solutions that deliver greater efficiency to cloud infrastructures and services. In February 2022, we launched FPGA-based SmartNICs through joint development with Xilinx. FPGAs (Field Programmable Gate Arrays) allow users to directly configure digital circuits for the given application, and combine the exceptional flexibility of CPU (Central Processing Unit) and the fast processing performance of ASIC (Application-Specific Integrated Circuit) to enable users to flexibly change the internal logic of software and achieve even higher performance. Kakao i Cloud servers that leverage FPGA-based SmartNICs support users with software reconfiguration or provisioning for performance improvement without the need for hardware change. Furthermore, FPGA-based SmartNICs reduce cloud CPU use by 50% or more while reinforcing application performance by up to 600% compared to existing solutions, and SmartNIC-mounted virtual servers help with more than half of the power consumption and operational cost compared to ordinary ones.

## Kakao i Cloud, an Integrated Enterprise Cloud Platform

Comprehensive Cloud Platform for Businesses, Kakao i Cloud provides a stable and high-performance Cloud service known for its superb track record in IT infrastructure and operation technology, which have supported Kakao's suite of services over the past ten years. Various infrastructure environments, including Public, Hybrid, Private are available. Kakao i Cloud enables a customizable operation of service through its flexible and expandable cloud platform. Furthermore, it supports the convenient and efficient operation of cloud services based on expandable and high-performing network architecture.

### <Cloud Services Delivered through Advanced AI and Data Technology>

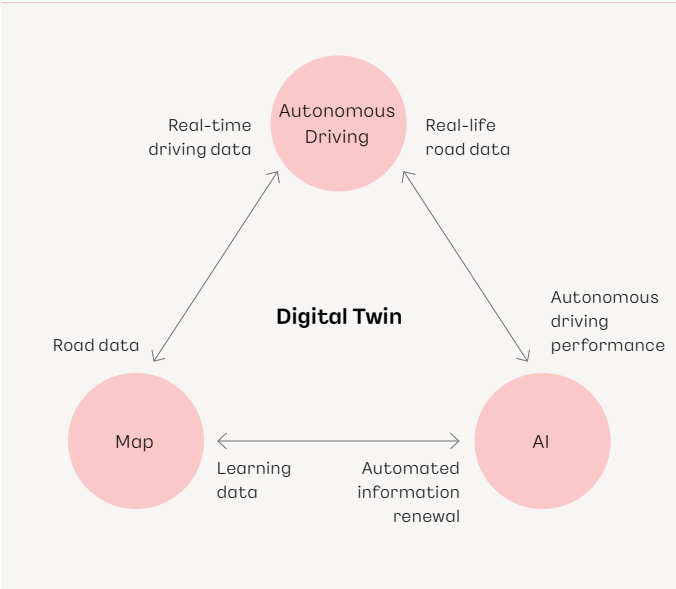




# Kakao leverages mobility technology to render our cities smarter by offering convenient and safe mobility for all.

## Mobility-Digital Twin

A digital twin is the identical representation of real-life objects and spaces in the digital virtual environment. Kakao Mobility deploys mobility digital twins to build virtual environment infrastructure that will lay the basis for AI-enabled future mobility services. Mobility digital twins consist of HD maps, real-time urban and service data, and AI training & service optimization simulations, and are applicable to autonomous driving and the wider smart mobility sector.



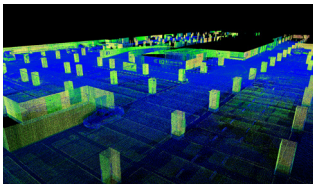
## Laying the Basis for a Smart Mobility Ecosystem

Mobility digital twins are open to all participants wishing to provide AI-based mobility services with an aim to facilitate the creation of an industrial ecosystem. Kakao Mobility will serve as an integrated data platform: it will provide the traffic, service and self-driving data it collected through mobility digital twins, and participating companies will contribute to the cumulation of their training and operational data. Mobility digital twins will be first applied to autonomous driving, which is embracing AI most actively, and will be expanded into the entire smart mobility sector.

### <Digital Twin Mutually Beneficial Ecosystem>



Digital twin city map (live map)



Building interior and underground parking lot



3-dimensional grid & address

### # Smart City Envisioned by Kakao Mobility

Kakao Mobility pursues a smart city where people live a more fulfilling life rather than spending their time and resources in meeting mobility needs and are provided with convenient and safe mobility. We will harness predictive analytics as well as wide-ranging mobility data to minimize unnecessary movement while supporting the mobility of things and services just as users wish in an advanced future city. While providing easier access to mobility services through autonomous driving and AI technology, we will thoroughly consider the convenience of mobility for people with mobility impairments so that we create a smart city where no one is left behind.

- A city built with data and developed with systems
- A city that delivers freedom as mobility
- A city that provides convenient and safe mobility for all

**Cloud sourcing (public)**

- Live data (taxi operations, chauffeurs/bike locations, etc.)
- Public data (floating population, traffic, signals, etc.)

**Kakao Mobility's role**

Super app-based live service data collection and management

Combination of exceptional routing and positioning capabilities

Diverse simulation function and scenario management





# Kakao harnesses blockchain to lead a trustworthy digital ecosystem.

## Blockchain Platform

A blockchain stores data in a network that consists of a number of computers or nodes. Data is stored in inter-linked blocks, and once recorded, such data becomes immutable and tamper-proof. A blockchain network ensures its fidelity and is operated based on the consensus reached among decentralized nodes. A blockchain platform serves to provide infrastructure to leverage blockchain technology in developing real-world service applications.

### Klaytn, a Transparent and Safe Blockchain Platform

Klaytn is the global public blockchain platform independently developed by Kakao to create a more transparent and safer internet community. Klaytn provides Klip, a digital asset wallet readily available for any KakaoTalk users, to provide improved user accessibility to the blockchain. A consensus algorithm that generates and instantly confirms new blocks every second was developed to ensure the safety of transactions, prevent duplicate payments and immediately complete all transactions in blocks. Klaytn also ensured that all transactions within the blockchain are immediately completed. Klaytn's fast split-second performance, along with the convenience of Klip, ultimately delivers improved user experience. Meanwhile, Klip Drops allows for the trading of limited edition digital arts, and harnesses blockchain's NFT(Non-Fungible Token) technology to provide proof of ownership of digital assets and enable safe trading, establishing a new creator economy.

## Providing a Convenient DApp Development Environment

Klaytn provides a development environment to help developers easily develop decentralized applications or DApps. In particular, Klaytn is maximizing compatibility with Ethereum, a leading smart contract platform and elevating developer experience (DX) to ensure DApp developers on the Ethereum platform can easily work on Klaytn. Also, efforts are underway to open source Klaytn codes as well as numerous development tools in the blockchain ecosystem to scale up the ecosystem. Through this, Klaytn aims to offer a DApp-friendly environment to contribute to reinvigorating the industry and boost the open source ecosystem to join efforts in advancing many technology areas of blockchain.

**Klaytn 2.0, the Metaverse Blockchain for All**

Klaytn is striving to bolster the accessibility of blockchain technology to bring more users to participate in the revolution of Web 3.0, a personalized and intelligent online ecosystem powered by blockchain and become a trust layer that connects all people across the globe. Specifically, Klaytn was envisioned as an underlying trust layer to evolve into a blockchain platform specializing in metaverse that respects and supports all communities for their engagement and contribution and aligns them all towards a new world. Klaytn 2.0, under development as a 'one-stop' chain for metaverse builders, plans to provide open source development infrastructure packages and a high performance mainnet. To create a collaborative Web 3.0 infrastructure and support the expansion into a metaverse ecosystem, we will combine Klaytn's robust community and technology to open up new opportunities and drive innovation.

## <Unique features of Klaytn 2.0>

- Metaverse package**  
Provide tool sets to facilitate the development for metaverse and total ecosystem packages
- Transaction finality**  
Enable high TPS (Transaction Per Second) and decentralization while maintaining 1-second finality and preventing from reverting transactions
- Ethereum compatibility**  
Support EVM (Ethereum Virtual Machine)-based DApps onboarding without modification
- Decentralized governance**  
A special governance structure where DAOs (Decentralized Autonomous Organizations), builders and enterprises participate to ensure stable decentralization

**Large-scale ecosystem funds**

Support promising projects by raising USD 1 billion funds and offering grants, investments, and compensation programs



# Technology Innovation Made Faster and Greater through Partnership

**When it comes to technology innovation and new discovery, we can do faster and more when we are together than we can alone.**

Innovative processes, manifested in an open culture of development and innovative work methods, accelerate new discoveries made by our Krew. Our relentless pursuit of innovation is fueled by our firm belief that as we reach the final destination of our journey towards innovative work methods, we will eventually achieve service innovation for users. Kakao intends to bring external innovators to join this very journey we are taking. By sharing our technology capabilities with all ecosystem participants in need of such capabilities, we seek open innovation for shared growth.

In doing so, we will discover more and grow further and create a better world with technology through partnership.

## Innovate with Kakao

### Process Innovation

with our Krew

We journey continuously towards an open culture of development and innovative work methods.

### Service Innovation

for improved user experience

We ceaselessly improve our service through technology and innovation towards a more convenient world.

### Open Innovation

for win-win partnership

We share our technology capabilities to innovate and grow hand-in-hand with all ecosystem participants.

## Process Innovation with Our Krew

It is our Krew who are the source of our technology competitiveness, and our Krew members can become even more competitive through innovative work methods. This philosophy drives Kakao to keep journeying ahead towards an open culture of development and innovative work methodology.

Our endeavors for innovative work methods began when we organized a task process standardization TF in 2018, whose work was carried on by the Open Task Force set up in 2019 and by the Agile Coach Part created in 2020. Our pursuit of open work as our work methodology makes our work more open-minded and efficient, and eventually improves our user service.

### <Kakao's Work Culture>

| Self-initiative  | Openness and sharing  | Horizontal communication   |
|--|---|--|
| Delegate authority to the right person for self-initiated and prompt decision-making | Share everything from opinions stated and discussions made to their final conclusions | Engage anyone in the decision-making process as long as he/she is the right fit for the given task |

## Open Work, Kakao's Distinctive Work Methodology

Kakao has continued with its journey to create a more open-minded culture of development. As part of this journey, we defined Open Work as Kakao's distinctive work methodology. Open Work ensures that work performed by all Krew members is made open in an objective and transparent manner.

### <Principles of Open Work>

1. Find information without the need for asking. All work — my work, colleagues' work, organizational work and project work — is open to anyone.  
**#open #sharing #open information**
2. Far from merely existing in an open space. This does not refer to information that is fragmented or just flowing. You don't need to intentionally look for it since it is always there in accordance with the set rules.  
**#rule #process #standard**
3. Just being open does not mean that work is truly open. Related work should be all connected as one.  
**#SSOT(Single Source Of Truth)**
4. It should also be documented how important each task is.  
**#Alignment #value #context #quantitative operation**

### Developing Management Tools to Practice Open Work

Kakao embraced Jira as a standardized in-house work management tool to ensure that Open Work does not remain a mere abstract concept but is fully embedded into our day-to-day work. Jira supports our work and collaboration across all phases through a single tool. In tandem with this, we developed our work process by defining the JCMM, a Jira-based capability maturity model, to improve our work management capability and encourage productivity, visibility and efficient behavior.

### <JCMM(JIRA Capability Maturity Model)>

|   |  |
|---|--|
| <b>Level 1   Initial</b>                    | Visualize all work   |
| <b>Level 2   Managed</b>                    | Establish visibility for detailed work information and its progress made |
| <b>Level 3   Defined &amp; Standardized</b> | Standardize management rules for company-wide operations and projects    |
| <b>Level 4   Quantitatively Managed</b>     | Ensure proper data management for objective work execution               |
| <b>Level 5   Optimizing</b>                 | Optimize through continuous improvement across all processes             |

## Improving Our Mobile App Development Environment

Kakao continuously develops and launches a range of mobile apps, and conducts quality tests on these apps as an essential part of its process to deliver valuable service to users. As work-at-home became the norm in the wake of COVID-19, we faced limitations in performing tests on a variety of devices on an as-needed basis. This prompted us to introduce device farms as a service to operate devices and test apps through remote access to actual mobile devices in the cloud environment with an aim to improve our app testing environment.

### Making Our Mobile App Testing Automatic and Efficient

Device farms assist our testers to perform automatic repetitive tests on mobile apps through pre-defined command scripts, without manually operating mobile devices. It also supports the real-time sharing of the screen under test and test results with colleagues while reproducing the issues that occurred to take stock of the status and identify improvements through collaboration.

### <Benefits of Device Farms>

|   |  |
|---|--|
| Reduce costs for device purchase and management by sharing test devices                                 | Improve work efficiency by sharing in real time device screens and test results in a remote work environment |
| Reduce the time taken for testing and monitoring by automating tests through the use of command scripts | Offset quality risks by adopting automated tests for areas that are hardly identified by humans              |



### Service Innovation for Improved User Experience

Kakao improves user experience by reflecting cutting-edge technology in its service innovation. We never take for granted any inconveniences in our current service offerings and resolve them with the help of technology and innovation to bring us one step closer to a more convenient future that we envisage. Our efforts will translate into improved user experience: users won't need to expose themselves to unnecessary information or click multiple times in search of desired content, nor get their public certificate ready or memorize complicated passwords for log-in or authentication. Going forward, Kakao's services will fulfill their intended role as a result of its sustained consideration and innovation for the betterment of user experience.

and apply our Contextual Bandit algorithm that optimizes our recommendations to suit individuals' content consumption patterns. Finally, we prevent users from being continuously exposed to boards addressing identical topics and restrict the number of boards published by each channel so that users are given an opportunity to explore more diverse content.

#### <Board Exposure Process for the Discovery Tab>



#### Journey to Discover Your Interests

Kakao View works tirelessly from the aspects of technology and service to connect users with a diverse content ecosystem. Not only do we optimize our offerings to user interests but also ensure diversity in the recommendations that we deliver. By doing so, we promote the continuity of meaningful discoveries and connections for both users and View editors.

#### KakaoTalk Wallet, the Beginning of a Walletless World

KakaoTalk Wallet is our electronic wallet service to store and manage a user's identification, licenses and certificates within KakaoTalk. In particular, the KakaoTalk Certificate which is easily issued through KakaoTalk Wallet comes in handy in a secure manner when users need authentication, certification and e-signature.



#### Kakao Certificate for a Simplified and Convenient Life

A number of users have chosen Kakao Certificate for simple authentication to log in and use nearly 60 public services, including National Tax Service's streamlined year-end tax adjustment, Government 24 and national health insurance. The certificate service also played a pivotal role in weathering the global pandemic through its application to no-show COVID-19 vaccine booking and simple authentication for vaccine appointments. In November 2021, we were recognized as a certified electronic signature business by the Ministry of Science and ICT and the Korea Internet & Security Agency to serve even broader applications with our trusted and safely-managed certificate. Kakao Certificate reached 35 million in number of users as of February 2022 for its easy-to-use and convenient user experience, and will serve the public interest by expanding its availability across a range of applications that make people's life more convenient.

#### <KakaoTalk Wallet's Growth Log>

- Dec. 2020 Initiated the KakaoTalk Wallet service
- Jan. 2021 Supported private certificates for year-end tax adjustment
- Mar. 2021 Added Shake functionality for QR Check-in
- May 2021 Initiated the same-day booking service for no-show COVID-19 vaccines
- Jul. 2021 Initiated the COVID-19 vaccine certificate service
- Aug. 2021 Supported Kakao certificate log-in for COVID-19 vaccine booking
- Nov. 2021 Opened the business card service
- Nov. 2021 Gained recognition as a certified e-signature business
- Dec. 2021 Surpassed 30 million in number of users in just one year after launching

#### Kakao View, Personalized Content Curation

Kakao View is our new content platform that provides content curated from diverse viewpoints. Its recommendation algorithm creates the optimal Kakao View content configuration screen for each user, and is evolving in a way to bring greater long-term satisfaction to users.

#### Kakao View Content Recommendation Process

We analyze topics based on the texts contained in boards published by editors and use the results to recommend the boards that bear similarities with the ones frequented by users. To keep our recommendations diverse and up-to-date, we filter out content that runs counter to our operational policy and place limitations on outdated boards and the number of board recommendations per Talk Channel. We then collect data on the responses made by individual users to boards

### Open Innovation for Win-Win Partnership

To make a better world Kakao shares its technology with everyone participating in the ecosystem to pursue open innovation for shared growth. Our aim here is to establish a virtuous cycle whereby our technological capabilities and ideas from external organizations interact with one another to bring never-before-possible innovation to life.

Our open innovation activities are classified into 'open source' to share our source codes with all, 'industry-academia cooperation and conferences', 'partnership with external organizations' to generate collaborative synergy, and 'investment in new businesses' such as startups. We will continue with these activities to drive the wholesome growth and innovation of the entire IT ecosystem as well as to elevate our internal development capabilities.

#### <Kakao's Open Innovation>

|   |  |
|---|--|
| <b>Open source</b>  | We share our open source codes to assist all developers in learning and growing through interactive communication. |
| <b>Industry-academic cooperation and conference hosting</b> | We arrange venues for all ecosystem participants to discuss and share knowledge and information for innovation.    |
| <b>Partnership</b>  | We work with partners to ensure that knowledge, technology, and new ideas are widely shared and disseminated.      |
| <b>Investment</b>   | We invest in companies that have new technology and ideas to bring innovation to life.                             |

### Open Source

#### OLIVE Platform for Open Source Management Service

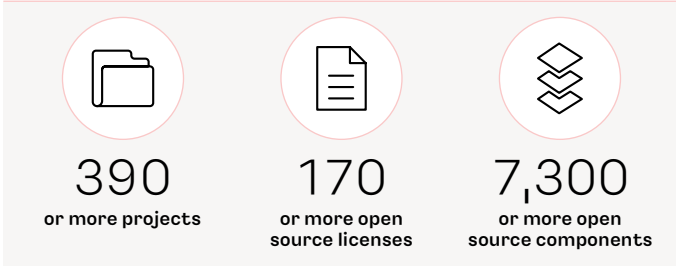
As open source is used widely and its management gains importance, this drove us to set the course of our open source policy to 'help properly use and contribute to open source'. In July 2021, we officially launched OLIVE Platform as our open source management service to take the lead in establishing and developing the development ecosystem. This platform is aligned with GitHub and supports file uploads to analyze added projects in order to verify open source licensing and related obligations while creating reports. OLIVE Platform is distinguished for its easier, faster, and more accurate open source verification, which is made possible through its credible open source database. This assists independent developers and small-size venture firms as well as developers and startups in better complying with open source licensing obligations and focusing more on their development work.

#### <Features of OLIVE Platform>

|   |  |  |
|---|--|--|
| <b>Real-time scanning in alignment with GitHub</b><br>Adding the GitHub URL to the project immediately triggers scanning. | <b>Open source data registration and sharing</b><br>Open source data is registered and added to the database to reuse such data for automatic analysis later on. | <b>Fast and accurate open source verification</b><br>Fast and accurate open source verifications are made possible with a reliable open source database. |
|---|--|--|

#### <Use of OLIVE Platform>

As of Jan. 2022



#### Automation of Open Source License Verification

We have continued to improve and automate our open source license verification methodology and process. OLIVE Platform has established a virtuous cycle whereby data is registered by users during project analyses, quality data is amassed through manager reviews, and a rise in registered data leads to more automatically analyzed data. Through verification, users continuously add to open source data, and more than 70% of the used open source is being automatically mapped. OLIVE Platform also allows comparison between previous and new changes made in open source projects so that users can check the modifications and manage risks accordingly. This also helped improve issues with existing open source analytical tools which required a huge amount of human resources and costs for open source data input.



#### Open Source Governance for OpenChain Certification

In January 2022, we achieved the International Open Source Standard certification (ISO/IEC 5230:2020) in recognition of our open source capabilities. Published by the OpenChain Project, ISO/IEC 5230 is the first international process management standard to define open source compliance and process management that can be trusted along the software supply chain. This certification is a validation of Kakao's open source capabilities and is expected to elevate the credibility of our open source management service OLIVE Platform.





## Industry-Academia Cooperation & Conferences

### Open Software Application and Sharing

Kakao has developed and shared its open software such as Buffalo and Khaiii to take the lead in technology advancement. Our annual if Kakao developer conferences arrange open source sessions for developers to share ways to understand and apply open source, and we are increasing the application of open software to our services to contribute to the development ecosystem. Our efforts to raise awareness on open source and improve capacity across the overall development ecosystem include sponsorship for open source events, participation in NIPA (National IT Industry Promotion Agency) projects, software community activities, and open source training and advisory.

#### <Our Sponsorship for and Contribution to Open Software Development>

|                         |  |
|-------------------------|--|
| <p><b>2021</b></p>      | <ul style="list-style-type: none"> <li>· Served as an author for NIPA's enterprise open software governance guides</li> <li>· Served as a lecturer for NIPA's Open Software Management Academy</li> <li>· Sponsored summer/winter competitions for university programming clubs in the Shinchon area</li> <li>· Provided open source lectures to Chungnam National University, the Ministry of Defense, Jeju National University, and Shinhan Bank</li> <li>· Participated in KOSSA WISET SW coordinator training courses</li> </ul> |
| <p><b>2020-2021</b></p> | <ul style="list-style-type: none"> <li>· Engaged in open frontier activities for NIPA's professional developer project</li> </ul>  |
| <p><b>2019-2021</b></p> | <ul style="list-style-type: none"> <li>· Served as an official sponsor for the NIPA Contribution Academy</li> </ul>  |
| <p><b>2017-2021</b></p> | <ul style="list-style-type: none"> <li>· Offered open source advice to the Army Headquarters, Shinhan Bank, NC Soft, and ETRI</li> </ul>   |

#### Kakao | if (Kakao) 2021 conference

- Host annual if (Kakao) conferences to pursue win-win partnerships with developers and drive the wholesome growth of the entire industry
- Held nearly 120 sessions at the 2021 conference with a focus on service, technology, business, partners, ESG and work methods



#### Kakao Enterprise | AI talent development and partnership

- Signed an MOU with the the Artificial Intelligence Institute of Seoul National University (AIIS) to expand the scope of research partnerships and develop AI advisor services
- Operate a research membership program for external researchers to engage in collaboration without regard to employment contracts, hours and locations

#### Kakao Brain | Joint AI research partnership

- Signed MOUs with seven university AI research labs to engage in joint research for 3 years until October 2024
- Set a goal of presenting new research methodologies with a focus on super-giant AI and deep learning technology

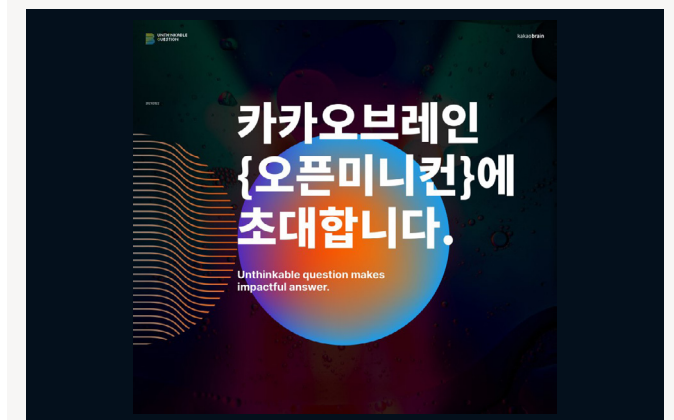
#### Kakao Mobility | NEMO 2022 Tech Conference

- Held the first Tech Conference in February 2022 to introduce our technology vision and development status and to contribute to a partnership-based ecosystem
- Introduced future mobility solutions (autonomous driving, UAM (Urban Air Mobility), and digital twins), TMS (Transportation Management System) and navigation technology products
- Recorded over 30,000 cumulative views



#### Kakao Brain | Real-time communication & open mini conferences

- Host real-time communication conferences on the last Wednesday of each month to elevate interest in and accessibility to AI technology
- Held an open mini conference in December 2021 to introduce diverse core technologies – super-giant AI, healthcare, metaverse, blockchain, etc.



## Partnership with Other Corporate Peers

### Kakao | Cooperation and opening in the areas of AI, ESG and IPR

- Teamed up with SKT to jointly develop AI technology across all areas including infrastructure, data, and language models
- Plan to share jointly developed AI technology with academia and startups to give back to society

### Kakao Mobility | Collaborating to advance UAM (Urban Air Mobility) services

- Signed an MOU with Volocopter, an UAM aircraft manufacturer, in July 2021
- Develop business models to deliver UAM services tailored to the Korean market and analyze the feasibility of UAM business based on mobility data

### Kakao Enterprise | Implementing the win-win Boost-Up program

- Implemented the win-win Boost-Up program with KDB to help startups with digital transformation and work infrastructure improvement
- This program discovers competent companies and supports cloud-based business commercialization, 1:1 technology mentoring and sharing Kakao's operational know-how

## Investment

### Kakao | Raising joint ESG funds

- Raised KRW 20 billion joint ESG funds with SKT
- Invested a total of KRW 3 billion as of December 2021 in CO:ACTUS and SENSEE which provide services to the socially underprivileged and MARVRUS which offers early childhood learning content
- Plan to identify, nurture and invest in ESG-focused innovative startups that leverage information and communications technology and service

### Kakao Mobility | Investing in autonomous driving system developers

- Made strategic equity investments in Autonomous A2Z and ThorDrive that are experts in passenger transport and logistics transport respectively to fully introduce autonomous driving services in Korea

### Kakao Mobility | Acquiring HD map technology businesses

- Acquired Stryx an HD map system development startup, to combine high-definition mapping with navigation and vehicle allocation to pursue innovation in geo-information technology

### Kakao Investment | Investing in line with technology trends

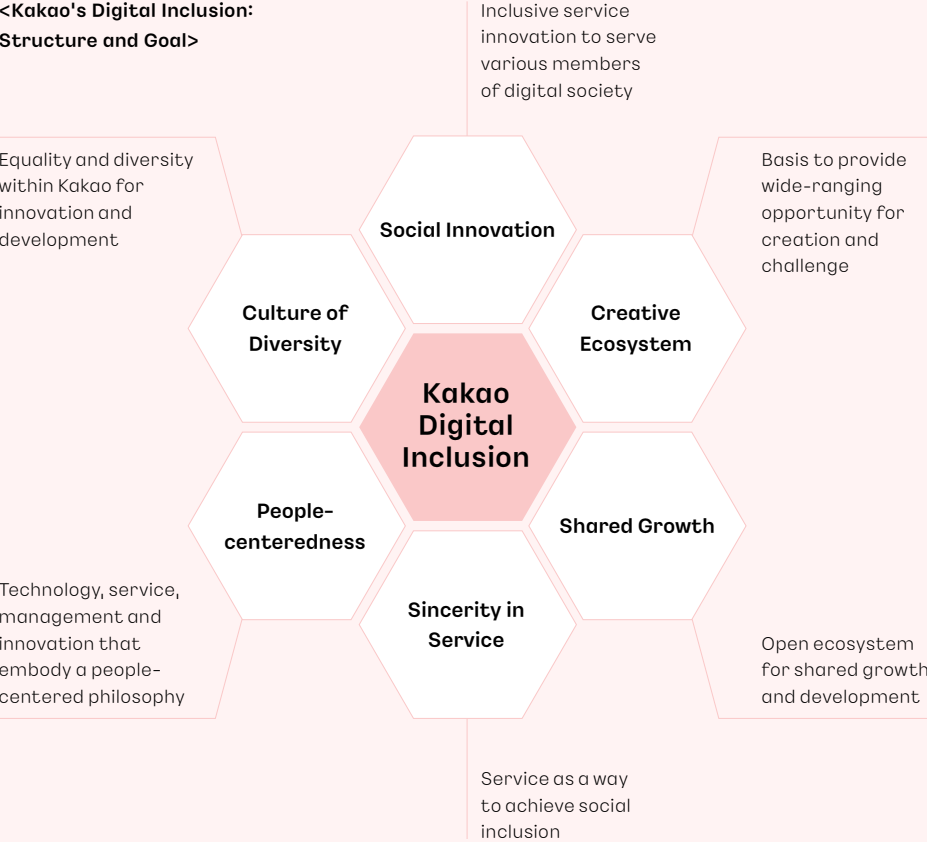
- Made fund investments in Blue Point Partners, a KAIST-based technology accelerator, to identify trends among millennials and Gen Z and form ties with tech-driven undergraduate startups
- Invested in Bigwave Robotics, an online robotic commerce platform, to keep pace with the rapidly growing robotics market
- Invested in KLleon a deep learning image generator, to secure AI imaging technology
- Made fund investments in Seoul Techno Holdings which invests in high-tech startups in their early phase leveraging Seoul National University's technology IP and startup infrastructure

### Kakao Brain | Investing in AI-enabled drug developers

- Plan to jointly develop AI drug design platforms by combining the new drug design technology owned by Galux with Kakao Brain's super-giant AI models to lead the global AI drug development sector

# Digital Inclusion for a Healthy Digital Society

### <Kakao's Digital Inclusion: Structure and Goal>

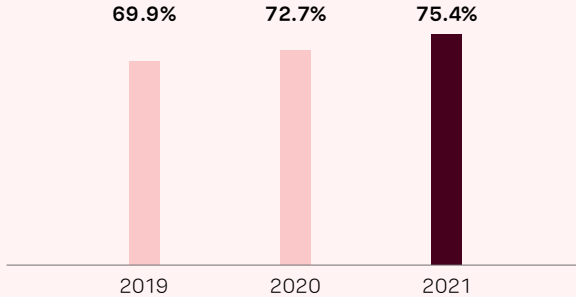


### Kakao's Endeavors to Create an Inclusive Digital Ecosystem

The rapid advancement of technology has made our lives much easier and more abundant. Services and technologies, once hailed as brand-new, became something so obvious in today's digital society. Still, some people are not familiar yet with all those things that we take for granted. As COVID-19 has compelled us to go contactless and online, along with the accelerating digital economic transition, this brought challenges to certain demographics such as small business owners and self-employed individuals whose lives had centered around the offline world. Upon getting a grasp on this emerging reality, we started to think about a digital ecosystem for all.

### # Digitization of Information Have-nots

The digital divide survey 2021 conducted by the Ministry of Science and ICT revealed that as of 2021, digitization of information have-nots<sup>1)</sup> reached 75.4%, with 100% referring to the average digitization of the public. While the number has been on the constant rise, from 69.9% in 2019 to 72.7% in 2020, there still exist areas in need of assistance when compared to how much the wider population has been already digitized.



### How do we define 'digital inclusion' at Kakao?

We define digital inclusion as fulfilling our role and responsibility to narrow the divide among members and pursue development and prosperity for all within the digital ecosystem. To this end, we aim to take a transparent and flexible approach to improving members' accessibility, forming stronger partnerships for shared growth, and creating wholesome digital society. Kakao's digital inclusion is based on the notion of 'identity'. Just as 'personal' use of digital technology extends to 'economy' and 'information' lead to 'digital citizenship', we will ensure that our own initiative on diversity and inclusion results in innovative services, which in turn will help create an inclusive society, establishing a virtuous cycle of inclusion and innovation.

<sup>1)</sup> People with disabilities, seniors, low-income groups, farmers/fishermen, etc.



## Culture of Diversity

### # Culture of Equality and Diversity within Kakao

Building a culture of equality and diversity within Kakao is the very first step to pursue digital inclusion that we envision. We strongly believe that a culture to respect and embrace one's own diversity is the fundamental prerequisite in creating innovative and socially inclusive services. This is why we have been working on multiple fronts at Kakao to promote our diversity and inclusion from within.

## Social Innovation

### # Technology and Service for Innovative Society

For Kakao, every moment of life is special in its own way. We observe each moment with utmost sensitivity and interpret them from different angles. We believe that small inconveniences of today may turn out to be a source of inspiration for tomorrow's innovation, and work day and night to create solutions. This philosophy is behind all our services and technology: they embody the true essence of innovation and serve as pillars for inclusive society for all.

## Creative Ecosystem

### # Providing and Supporting an Ecosystem for Creation and Challenge

The playground that Kakao has created for partners and consumers does not remain empty. There are tracks to freely run about, sand boxes where new castles can be built, and first-aid kits to prepare for falls. Kakao is relentlessly struggling to provide a spacious and fully equipped playground where creators can nurture their creativity and anyone can come to rise to challenges.

#### Kakao's Diversity in Number

We respect the diverse backgrounds and values that our Krew members bring to Kakao. To establish a flexible organizational culture, we prioritize diversity from the employment phase through gender-blind hiring and the elimination of education level criteria. Out of 3,472 Krew members, 1,514 of them are women, comprising 43.6% of total, and 436 women were hired out of 994 newly hired Krew, which is translated into 43.9%. This far exceeds the average ratio of female employees in the IT service provision industry (27.4% in 2019) published by the ICT Survey 2020 of the Ministry of Science and ICT. We operate daycare centers at our Pangyo and Jeju Office for Krew members to engage in work while safely caring for their young children, offer maternity and parental leave to both Krew and their spouse, and introduced flexible hours to support our Krew through their parenthood. Linkage Lab, our subsidiary and a standard site hiring people with disabilities, employed a total of 84 persons with disabilities as of December 2021, who perform internet service work within the boundaries of their competence along with their colleagues without disabilities.

#### <Kakao Krew's Diversity in Number in 2021>

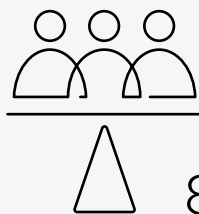
**Females out of total Krew**  
1,514 persons out of 3,472 persons

43.6%

**Females out of newly hired Krew**  
436 persons out of 994 persons

43.9%

**Krew with disabilities hired by Linkage Lab**



84 persons

#### Kakao T Taxis Growing Smarter for All

Kakao T Taxi has created new services and expanded its operations over the past six years to meet diverse mobility needs of consumers, rather than merely connecting taxis to users. Kakao T Taxi revolutionized the way users view mobility: they no longer just wait for taxis but call them to their current location, easily pinpoint their desired destination on the map without elaboration, and make contactless automatic payments in a safer and more convenient manner. Taxi drivers also benefited along the way as our AI-assisted allocation process platform helped improve the operational efficiency of taxis, and Kakao T Taxi provided an opportunity for anyone to earn a decent income even without special know-how, as long as they properly use the platform. Kakao T Taxi does not stop here but is engaging in broad-ranging research to bring future mobility — e-taxi, self-driving taxi, and UAM (Urban Air Mobility) — one step closer to reality.

#### <Kakao T Services Made More Efficient and Convenient>

**Kakao T Taxi**  
Average time taken for vehicle allocation in 2021(9.2 seconds) against 2019

34% reduced

**Kakao T Chauffeur**  
Time taken for driver allocation in 2021 against 2019

10% reduced

**Kakao T Taxi**  
Success rate in allocating vehicles for distances 5km or shorter in 2021  
60.5% in 2019

63.7%

**Kakao T Parking**  
Ratio of payments made with the Kakao T app at COEX parking lots as of the end of 2021  
6% as of Jan. 2021

17%

#### Kakao emoticons continue to pursue a wholesome mutual growth with a creator.

Kakao emoticons that make mobile chats more enjoyable and lively celebrated their 10th anniversary in 2021. Kakao's platform served to allow anyone to debut as creators through evaluations and grow into content producers, and defined a whole new profession of 'emoticon creators' to grow hand-in-hand with them for the past decade. In January 2021, Emoticon Plus was unveiled as a regular subscription service to provide unlimited access to emoticons. Today, there are more than 10,000 people working in this specific sector, including emoticon creators, and the creation of emoticons contributed approximately KRW 700 billion to the creation ecosystem based on their profit generation, testifying to the wholesome mutual growth that Kakao pursues along with creators.

#### <10 years history of Kakao Emoticons(2011~2021)>

**Cumulative No. of emoticons sent**



220

billion emoticons

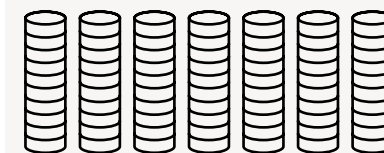
**Cumulative No. of emoticons expressing distinctive emotions**



300,000

emoticons

#### Emoticon market size in profit



700 billion KRW

### Shared Growth

#### # Kakao's Approach to Shared Growth and Prosperity with Partners

Kakao is committed to creating a playground for partners to run around and fine-tuning its tracks to provide a level playing field. We also connect tracks together so that our partners can run faster, farther, and longer. We believe that one of our important mandates is to organically expand the ecosystem in so doing and explore ways to pursue shared growth and prosperity with partners.

#### Kakao broadens sales opportunities for local farmers and small/mid-sized partners.

Kakao provides its technology and platforms to connect local farmers nationwide facing difficulties with sales amid COVID-19 with 45 million KakaoTalk users and to assist small/mid-size businesses challenged with their digital transition in interacting with customers on the mobile platform. We help address inconveniences that arise in the entire product sales and purchase process and lead a new commerce paradigm, from KakaoTalk Gift which promotes mind-to-mind communication beyond product-to-consumer connection to 'KakaoTalk Shopping' which features 'Talk Deals' for limited-time discount offers and Kakao Makers that bring producers and users together. In particular, Kakao Makers leveraged its made-to-order business model in hosting win-win partnership events to help farmers having a hard time to deal with production and inventory and to provide customers access to high-quality products. Each of these events saw their product offerings successfully sold out, and provided fee discounts and other practical benefits to fully support farmers in weathering the ongoing hardships.

<Local Farmer Support Events in Number> As of Apr. 30, 2022

Cumulative transactions made **KRW 2.8 billion**

Participating customers **148,052 persons**

Farm produce sold at their fair price through Kakao Makers **1,017 tons**

Farm produce made available **12 categories**  
Carrots, Odae-grown rice, red pepper powder, Jeju-grown turnips, red ginseng, onions, sweet potatoes, trout, tomatoes, green pumpkins, Gangwon-grown turnips, and ginseng

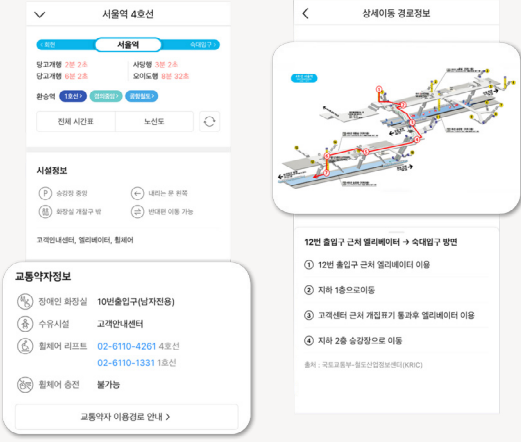
### Sincerity in Service

#### # Sincere Services That Embrace the Socially-Underprivileged and Marginalized

Kakao ensures that all users, irrespective of gender, class, and disability, have easy access to its service and enjoy convenience in their life. This is why we plan services in consideration of the special needs of digitally-underserved groups so that they can readily access and use digital technology. It is our sincere hope that our service is not confined to any specific class but is made easily and freely available to anyone.

#### Kakao Map developed services that provide safe and convenient mobility to mobility-challenged people.

Nearly 30% of Korea's population is categorized as mobility challenged, including people with disabilities, seniors and expectant mothers who may find it difficult to use public transport. To reduce just a little bit of their burden in using the subway, Kakao Map collaborated with the Ministry of Land, Infrastructure, and Transport and the Ministry of Public Administration and Security to provide them with route guidance at 1,005 subway stations across the nation. For example, they can use Kakao Map to identify and locate such amenities and safety facilities as barrier-free bathrooms, nursing rooms, wheelchair lifts, and electric wheelchairs. When a station is equipped with route guidance information for mobility-challenged people, they can click on the 'show me the route' button and select their starting point and destination, and then will be provided with an at-a-glance view of the entire route based on the station's floor plan. The exit information menu of each station also displays whether a specific exit is equipped with elevators, escalators or wheelchair lifts so that users can identify the most convenient exit.



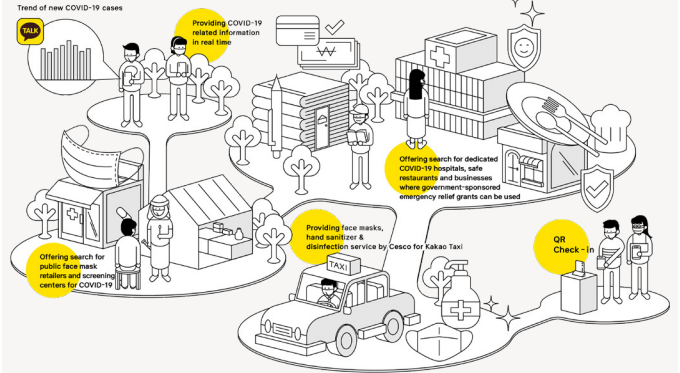
### People-centeredness

#### # Service That Embodies a People-centered Philosophy

Kakao's technology and service are all directed towards people. We put in the work needed in creating new services as we firmly believe that the connections to be made as a result will surely bring a better tomorrow for people. Under the motto of 'new connections, a better world', we design our service by closely observing how people behave, think about their cherished value, and consider their ways of life and cultural practices. This is why our services inherently manifest our people-centered philosophy.

#### Kakao strives to keep people safe and healthy amid COVID-19.

Kakao has been working on multiple fronts to apply its technology and platforms to keep people safe and healthy. Our KakaoTalk and Daum Portal featured COVID-19 data boards to provide accurate COVID-19 information, and our Newsbot channel was restructured to provide users with relevant news. To eliminate any institutional blind spots that cause inconvenience, we featured same-day booking for no-show COVID-19 vaccines and a vaccination certificate service for KakaoTalk, and provided a KakaoTalk certificate log-in service within the vaccination booking system to help accelerate the arrival of the post COVID-19 world. We also deployed a COVID-19 self-diagnosis chatbot for KakaoTalk so that people can rapidly cope with the spread of the pandemic, and opened a search service to identify hospitals and clinics that provide rapid antigen testing and PCR testing or COVID-19 phone counseling.









## An Inclusive Ecosystem Created with Kakao

Creating an inclusive ecosystem that promotes co-existence and shared growth for all is made possible when Kakao and its Community leverage their influence in pursuing sustainability across our society. The core value of win-win partnerships for shared growth is realized when social sustainability goes hand-in-hand with corporate sustainability.

As such, Kakao will raise a total of KRW 300 billion for win-win partnership funds with its Community for the next five years. These funds will go to support small business owners & local partners, digital content creators, performing arts creators, mobility platform workers, startups & social innovators, local communities and mobility/digitally-challenged groups to drive shared growth in ways that Kakao can do best.

We believe that win-win partnerships form the essential core of our future growth. We will work tirelessly to define the social role that Kakao and its Community should assume to create an inclusive ecosystem and fulfill our social responsibility.

### <Kakao's Win-Win Partnership Programs>

| Area   | Description   | Value           | Participant   |
|--|---|-----------------|---|
|  <p><b>Small business owners and local partners</b></p>                  | <ul style="list-style-type: none"> <li>Conduct on-site training for small business owners, provide customized online training content, operate dedicated digital supporters</li> <li>Expand the operation of 'Worth Every Penny', a win-win partnership brand for agricultural/marine products to support their sales</li> </ul>  | KRW 100 billion | Kakao<br>Kakao Pay<br>Kakao Impact                          |
|  <p><b>Digital content creators</b></p>                                  | <ul style="list-style-type: none"> <li>Support a content creation ecosystem through global original IP platforms</li> <li>Develop a system to improve profitability for webtoon artists/web novelists</li> <li>Establish the Kakao Creative Foundation</li> <li>Invest in developers of popular small/mid-scale games and support the development of game talent</li> </ul> | KRW 55 billion  | Kakao<br>Entertainment<br>Kakao Games                       |
|  <p><b>Performing arts creators</b></p>                                   | <ul style="list-style-type: none"> <li>Establish Seoul Kakao Arena as a popular music performance facility to contribute to nurturing performing arts professionals</li> <li>Open academy courses for community members and support performing arts studios for teens</li> </ul>  | KRW 15 billion  | Seoul Kakao<br>Arena SPC                                    |
|  <p><b>Mobility platform workers</b></p>                                 | <ul style="list-style-type: none"> <li>Help taxi drivers and chauffeurs improve their profitability through fee/profit distribution ratio adjustments</li> <li>Develop profit models to help mobility platform workers secure stable income</li> <li>Provide benefits and build infrastructure to support the transition to EVs</li> </ul>                                  | KRW 50 billion  | Kakao Mobility  |
|  <p><b>Startups and social innovators</b></p>                          | <ul style="list-style-type: none"> <li>Support startup cloud solutions</li> <li>Support more than 100 social innovators through the Kakao Impact Fellowship</li> </ul>  | KRW 20 billion  | Kakao Enterprise<br>Kakao Impact                            |
|  <p><b>Local communities, mobility/digitally-challenged groups</b></p> | <ul style="list-style-type: none"> <li>Develop technology and systems to prevent phishing damages</li> <li>Provide convenient mobility to mobility-challenged people</li> </ul>   | KRW 60 billion  | Kakao Games<br>Kakao Mobility<br>Kakao Bank<br>Kakao Impact |

|    |               |
|----|---------------|
| 33 | Environmental |
| 42 | Social        |
| 80 | Governance    |



Part 3

# Sustainable Management

# Environmental

### Why This Matters

A global consensus is emerging that climate change poses a serious threat to human survival, and businesses across the world consider environmental contribution as their essential social responsibility rather than a mere option and are joining in responding to climate change. As a company bringing positive change through technology and people, Kakao believes its social responsibility goes beyond regulatory compliance or meeting market needs towards environmental contribution and is determined to take action accordingly. In particular, our response to climate change will focus on areas where we have strengths by bolstering communication and cooperation with stakeholders and engaging users in emission mitigation efforts.

### Approach

Kakao defined its environmental management vision as 'small innovations in our daily lives towards a sustainable future', and will support its partners, users and all members of society to participate in responding to climate change as well as reducing its carbon emissions generated from business operations. To this end, we set our 2040 Net Zero goal and will operate green data centers. We are also establishing a green platform to enable our partners and users to take climate action simply by choosing our green digital services and joining our eco-friendly campaigns.

### Reporting Contents

- Environmental Management System 34
- Response to Climate Change 35
- Green Data Center 36
- Environmental Impact Mitigation 38
- Green Service 39

### <Strategic Framework for Environmental Management>

|                |   |   |  |
|----------------|---|---|--|
| Vision         | Small innovations in our daily lives towards a sustainable future environment |   |  |
| Goal           | 2040 Net Zero   |   |  |
| Area of Action | <b>Within Kakao</b><br>Reduce environmental impact within Kakao               | <b>Through Kakao</b><br>Leverage our green digital services in supporting partners and users to contribute to the environment | <b>With Kakao</b><br>Engage in eco-friendly activities in partnership with wide-ranging stakeholders |

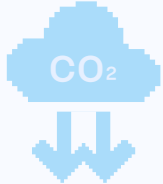
### 2021 Highlights

#### Set our climate action goal

# Net Zero

by 2040

On Scope 1 & 2 emissions



#### Joined global environmental initiatives

# SBTi

Submitted our commitment letter to the SBTi



# TCFD

Became a supporter for the TCFD

#### Installed plastic recycling machines

# 3,933

PET bottles collected in total

at our offices in Pangyo, Gangnam and Jeju



#### Green design considerations for our data center in Ansan

# 1st

grade in energy efficiency rating



# Highest

grade in G-SEED (Green Standard for Energy & Environment Design)

## Environmental Management System

Kakao has established an environmental management system and is managing its environmental impact to achieve its 2040 Net Zero goal. We launch a range of campaigns to save resources consumed in our business operations and facilitate these campaigns through the participation of our Krew. We are also establishing green platforms and a green service ecosystem so that our users can contribute to mitigating environmental impact by simply choosing our services and platforms.

### Environmental Management Implementation System

We develop our environmental strategy to conduct business in an environmentally friendly manner and commit ourselves to reaching the set goal. We continuously engage in activities to minimize our environmental impact across our business operations while setting targets and making investments to make our operations carbon neutral.

### Environmental Management Strategy

We announced the Active Green Initiative which embodies our commitment to resolving environmental issues. This goes beyond merely reducing our carbon emissions and aims to contribute to sustainability by leveraging various Kakao services. With this initiative, we will implement our climate change strategies with a goal of reaching Net Zero in GHG emissions by 2040. Particularly, the three principles of 'Within Kakao', 'Through Kakao', and 'With Kakao' are defined in the initiative to engage our Krew, partners, users and all members of society in taking climate action.

We plan to use our Kakao Carbon Index to convert the environmental contributions made by the Kakao Community into quantifiable carbon reductions to disclose the environmental performance achieved through the Active Green Initiative and verify such performance in a transparent and systemic manner. To fulfill our responsibility as a platform company that provides services to the majority of the nation, we will step forward in implementing the tasks defined in each action area and take the lead in mitigating carbon emissions and tackling environmental issues.

### Environmental Policy

In April 2021, we stipulated our environmental policy as the foundation to advance environmental management. This policy sets our course of action in minimizing environmental impact generated in the process of service delivery and fulfilling our environmental responsibility.

#### <Kakao's Environmental Policy>

- Continuous improvement of environmental performance
- Taking the initiative in responding to climate change
- Development of eco-friendly technology /services and expansion of green investing
- Preventive activities through improvement
- Compliance with laws and regulations and other requirements
- Waste and energy management
- Open management
- Support for the participation of partners and users

[Link to Kakao's environmental policy](#)

### Dedicated Organization

Our Board of Directors (BOD) reviews and approves our ESG plans and their progress outcomes. Meanwhile, the ESG Committee created under the BOD in January 2021 periodically manages and oversees our overall ESG plans and their implementation while making deliberations and decisions. The Environmental TF under the Krew Support Group serves as dedicated organization for working-level environmental operations and data management.

### Environmental Management System

In April 2021, our Headquarters in Jeju and Pangyo Office achieved the ISO 14001 environmental management system certification. As a follow-up on this, we receive annual surveillance audits performed by an external independent organization. Our environmental management system serves as the basis to systematically identify, manage and improve environmental issues concerning our business.

### Environmental Investment

We are making investments to achieve the LEED (Leadership in Energy and Design) green building certification for our Pangyo Alphadom City, a building that will accommodate members of our Kakao Community in 2022. We also joined the green premium program to purchase and use renewable energy in the second half of 2021.

#### <Environmental Investments Made>

|   |   |
|---|---|
| <b>Pushing to achieve the LEED certification for Pangyo Alphadom City</b> | <ul style="list-style-type: none"> <li>· Invested to receive a Gold rating under the LEED program</li> <li>· Adopted eco-friendly interior designs and construction methods to earn a LEED ID+C (Interior Design and Construction) Gold rating</li> </ul> |
| <b>Participation in the green premium program</b>                         | <ul style="list-style-type: none"> <li>· Participated in the green premium bid applicable between July 2021 and December 2021 (purchased renewable energy of nearly 2,978MWh)</li> </ul>  |

### Environmental Goal

We set goals and implement detailed plans to reduce our environmental footprint from business operations while bringing positive environmental impact through our service. In 2021, we set a goal of lowering the GHG emissions intensity of our office operations (tCO<sub>2</sub>e/no. of employees) by 5% year-on-year to mitigate environmental impact generated from our offices, and achieved a 13% reduction in our emissions intensity from 1.13tCO<sub>2</sub>e/no. of employees in 2020 to 0.98tCO<sub>2</sub>e/no. of employees in 2021. Meanwhile, we installed plastic recycling machines named Nephron to collect 3,933 PET bottles in total, and our in-house cafeterias switched to paper cups and packages made of biodegradable materials to reduce the use of disposables and mitigate the environmental impact of our offices. In 2022, we set a goal of achieving 2040 Net Zero for our Scope 1 & 2 emissions, and plan to gradually expand our GHG emissions management into the entire value chain.

# Response to Climate Change

Kakao established its own principles of climate change response and announced the Active Green Initiative to embody its commitment to resolving environmental challenges through its service offerings. We also set our goal of achieving Net Zero in GHG emissions by 2040, and will lay the groundwork to use renewable energy, shift to EVs and tackle climate change along supply chains to mitigate GHG emissions across our entire business operations.

## 2040 Net Zero Goal

We announced our goal of achieving Net Zero in GHG emissions by 2040 on a consolidated basis. This goal was set in line with the SBTi<sup>1)</sup> and will be attained by reducing our Scope 1 & 2 emissions by 40% by 2030 and then by 100% by 2040 from the 2021 baseline. As to Scope 3 emissions, we aim to lower such emissions by 17% by 2030 from 2021 levels in the mid-term. In tandem with this, we will continually monitor our carbon emissions to manage GHG emissions along the whole of our value chain and develop a mid/long-term roadmap for Scope 3 emissions within two years.

### Scope 1 Shift in vehicle fuel

Scope 1 emissions refer to GHG emissions directly generated from our business activities. At Kakao, such emissions primarily stem from the consumption of vehicle fuel. We developed our plan to shift to EVs for our commuter buses and corporate fleet vehicles and for Kakao Mobility taxis as a way to mitigate our direct emissions.

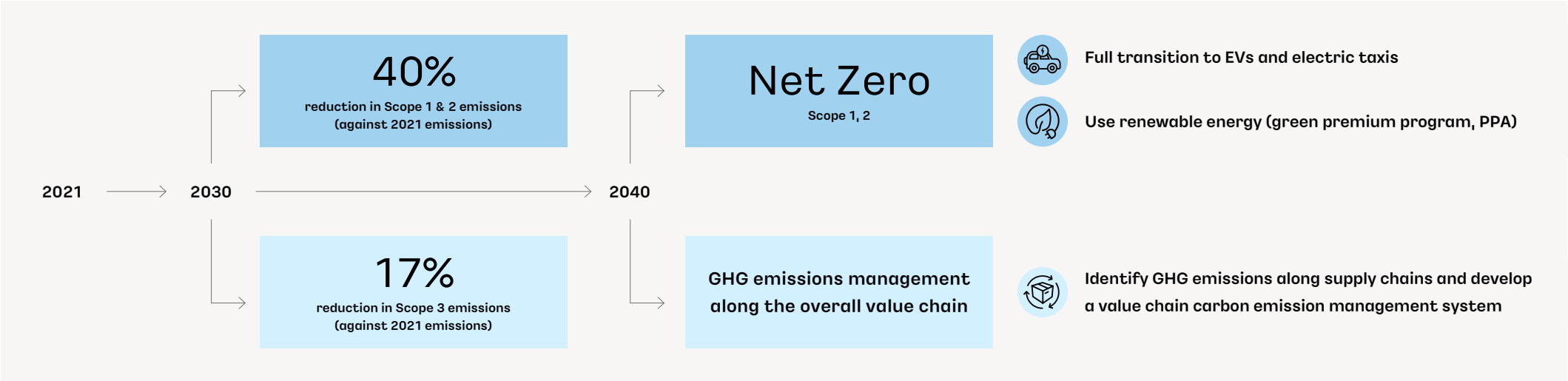
### Scope 2 Use of renewable energy

Scope 2 emissions refer to indirect carbon emissions generated from the consumption of electricity at our offices and data centers. Our plan is to switch to eco-friendly energy for 60% of our power consumption in the course of business operation, and fully transition to renewable energy by 2040 to attain the RE100 target. To this end, we are considering PPA<sup>2)</sup> for our offices and our own data center.

### Scope 3 Laying the basis for climate action along supply chains

Managing Scope 3 emissions generated indirectly from a company's value chain starts with laying the basis to respond to climate change along supply chains. We will (1) establish a system to clearly identify our GHG emissions across supply chains (2) request key partners to join the RE100 initiative (3) support their implementation (4) and develop systems to manage our carbon emissions in the overall value chain.

## <2040 Net Zero Roadmap>



1) The Science Based Targets initiative was voluntarily launched to bolster businesses' climate action by presenting guidelines and methodologies to set science-based GHG emissions reduction goals in line with the goal reached through the Paris Agreement

2) Power Purchase Agreement whereby a company signs a power purchase agreement with renewable power generators to procure eco-friendly power



# Green Data Center

Kakao works on multiple fronts to mitigate its environmental impact generated internally, and remains committed to improving energy efficiency to lower the environmental footprint of data centers that are heavy power consumers. Presently, we rent data center spaces, and will complete and operate our own data center in 2023. This new data center will be built with environmental considerations from the design phase to fulfill our environmental responsibility, and other data centers under operation will also continue with activities to maximize their energy efficiency.

## Building a Green Data Center

Our new data center in Ansan to be completed in 2023 embraces eco-friendly designs to help create a sustainable environment. This will be equipped with facilities to reduce carbon emissions and energy consumption while using renewable energy to render our business operations greener.

### Adopting Eco-conscious Designs

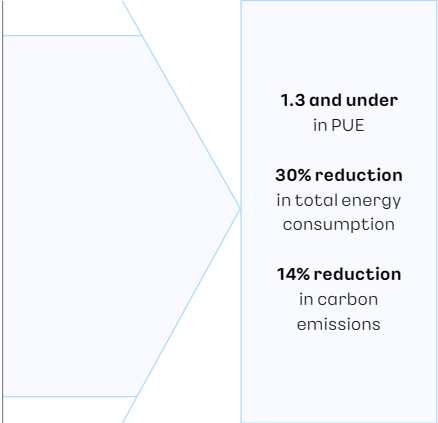
Our new data center in Ansan will be established as a green data center by leveraging natural conditions and adopting a host of energy saving technologies. This will be equipped with renewable energy infrastructure, high efficiency energy facilities for improved cooling power efficiency, and a rainwater/gray water/waste heat recycling system. Such eco-friendly design considerations will help reduce its total energy consumption by 30% from existing data centers, and save approximately KRW 3.1 billion in annual energy cost. Furthermore, this new data center will lower its power consumption by 32GWh per year to mitigate carbon emissions by 14%. Its design and construction work is underway to leverage energy saving technologies and keep its PUE<sup>1)</sup> at 1.3 and under.

### <Eco-friendly Investment Plan for the Ansan Data Center<sup>2)</sup>>

| Category  | Expected savings per annum (MWh) | Expected energy cost savings per annum (KRW million) | Environmental investments (KRW million) |
|---|----------------------------------|--|---|
| <b>Facilities with improved energy use efficiency</b> | 29,290                           | 2,929  | 18,054                                  |
| <b>Waste heat recovery and use</b>                    | 24                               | 2  | 20                                      |
| <b>Renewable energy facilities</b>                    | 1,629                            | 163  | 6,472                                   |
| <b>Total</b>  | 30,943                           | 3,094  | 24,546                                  |

### <Eco-conscious Considerations for Our Ansan Data Center>

|                                       |   |
|---------------------------------------|---|
| <b>Energy saving architecture</b>     | <b>Minimize energy requirements through energy saving architecture</b> <ul style="list-style-type: none"> <li>· Adopt shades with improved insulation performance and a high performance double facade system</li> <li>· Introduce hot aisle and UT containment systems and optimize the air current</li> <li>· Introduce a high efficiency pre-cooling chiller system</li> </ul> |
| <b>Energy efficiency technology</b>   | <b>Improve energy efficiency and minimize energy consumption</b> <ul style="list-style-type: none"> <li>· Recycle rainwater and gray water</li> <li>· Install a waste heat recovery system</li> <li>· Use pre-cooled outdoor air for water and air cooling</li> <li>· Install high efficiency devices, water saving devices and LED lighting</li> </ul>                           |
| <b>Eco-friendly energy technology</b> | <b>Generate energy through photovoltaics and fuel cells</b> <ul style="list-style-type: none"> <li>· Install 1,000kW-capacity south-facing photovoltaic panels</li> <li>· Deploy 50kW-capacity eco-friendly fuel cells</li> </ul>   |



### <Aerial View of the Ansan Data Center<sup>3)</sup>>



1) Power Usage Effectiveness: PUE refers to the ratio of power used to run the IT equipment within a data center to the total amount of power entering the data center, and an ideal PUE is 1 with 100% energy efficiency.  
 2) We formulated plans to build an eco-friendly data center in 2021, and

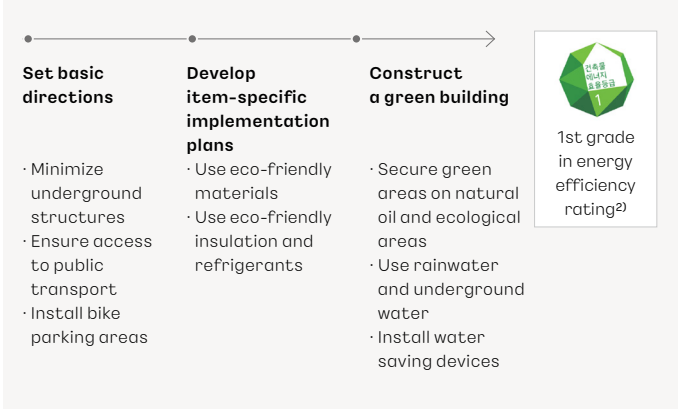
the investment activities planned for the construction process will be implemented in 2023 with actual budget execution.  
 3) An aerial view of the Ansan Data Center may differ from the actual data center to be completed.



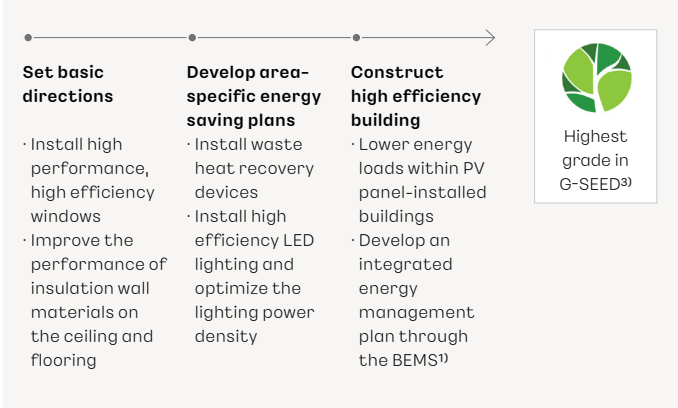
**Green Certification**

Our Ansan Data Center earned 1st grade in preliminary certification under the energy efficiency rating program and the highest grade in preliminary G-SEED (Green Standard for Energy & Environment Design) certification in recognition of its energy efficiency technology and energy saving architecture.

**<Energy Efficiency Rating Certification>**



**<G-SEED Certification>**



1) Building Energy Management System: A building energy management system which integrates data collection, control, management and operation for efficient energy management  
 2) 1st grade in energy efficiency rating  
 3) Highest grade in G-SEED (Green Standard for Energy & Environment Design)

**Data Center Energy Efficiency Management**

The stable management of any data center requires that the temperature within the server room is maintained within the set range. The cooling system operating for this purpose is one of the major contributors to the energy consumption of data centers. We manage the efficiency of our cooling system to reduce carbon emissions from our data centers, and select energy-efficient servers for this purpose.

**Improving Air Conditioning within the Server Room**

Improving the energy efficiency of the server room first and foremost depends on the efficient management of the cooling equipment. This prompted us to pursue a range of improvements to separate the high temperature heat generated by the servers from the cold air supplied by the cooling equipment. While temperature differences by rack height and distance spanned from 5~6 °C to up to nearly 10°C before improving our server room air conditioning environment, the improvement of the rack structure and the introduction of containment air-conditioning helped close this gap to maintain a mere 1~2°C differential, making our data centers operate at their highest efficiency.

|  |   |
|--|---|
| <b>Improvement of the rack structure</b>   | <ul style="list-style-type: none"> <li>· Maintain the minimum space needed for cabling to eliminate unnecessary free spaces</li> <li>· Independently manufacture blanking panels of various sizes for diverse purposes to eliminate unnecessary aisle spaces for air</li> <li>· Introduce high density racks to better utilize spaces</li> </ul>                |
| <b>Introduction of containment air conditioning (isolation air conditioning)</b> | <ul style="list-style-type: none"> <li>· Switch from face to face to cold aisle containment and then to hot aisle containment to constantly improve air conditioning and make improvements on high density equipment installation in line with increasing power consumption per rack</li> <li>· Maintain cold air and improve operational efficiency</li> </ul> |

**Adopting Energy Efficient Servers and Equipment**

We select servers certified under diverse energy efficiency standards to manage the energy efficiency of our servers and power supply units.

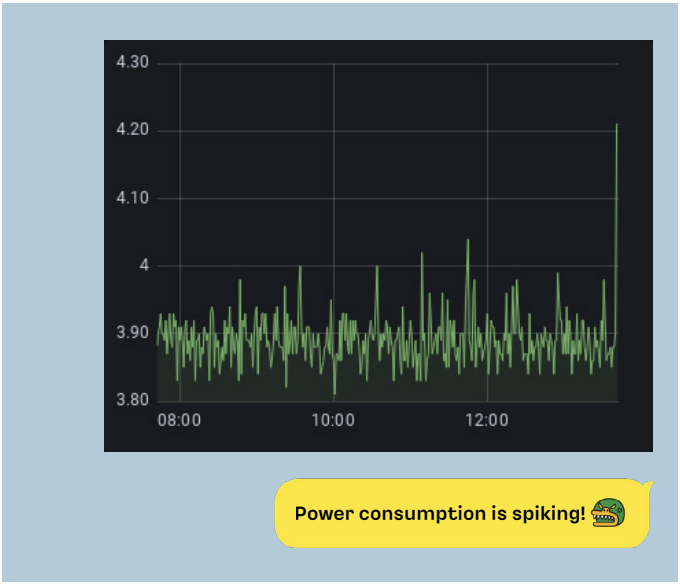
**<Energy Efficiency Certifications Awarded to Our Servers and Power Supply Units>**

- ENERGY STAR®
- Power Supply Titanium Level Certified
- Power Supply Platinum Level Certified

**Developing and Operating a Smart Temperature Management System**

Our server rooms were reinforced with temperature and humidity sensor installations to intuitively and immediately check their operational status. This enables us to check three spots from the bottom to the top of the racks to monitor temperature changes in real time and allow for real time checks at any given location on the KakaoTalk mobile platform.

**<KakaoTalk's Real-time Monitoring>**



# Environmental Impact Mitigation

To reduce environmental impact generated internally, we engage in eco-friendly activities from campaigns that our Krew can participate in their daily lives to infrastructure improvement spanning our workspaces and mode choices in commuting.

## Reducing Environmental Impact

To encourage our Krew to actively participate in mitigating environmental impact in their day-to-day routine, we improve our infrastructure spanning workspaces and commuting choices as well as launching campaigns.

## Promoting Eco-friendly Commuting and Mobility for Krew

We operate commuter buses to make commuting of our Krew carbon free, and are building bike parking lots and EV infrastructure within our workplaces. This will surely help us mitigate environmental impact generated from commuting.

|                                   |   |
|-----------------------------------|---|
| <b>Provide commuter buses</b>     | <ul style="list-style-type: none"> <li>Operate commuter buses on 19 routes to work and 17 routes to Krew's destinations as of Dec. 2021</li> <li>Operate shuttle buses between our office and nearby subway stations</li> <li>Nearly 45% of our Krew take commuter or shuttle buses</li> </ul>  |
| <b>Encourage the use of bikes</b> | <ul style="list-style-type: none"> <li>Operate bike parking spaces at 6 locations (70m<sup>2</sup>) at our Pangyo Office as of Dec. 2021</li> <li>Make the creation of bike parking lots mandatory for new offices</li> <li>Support charging devices in bike parking areas to encourage the use of e-scooters and e-wheels</li> </ul> |
| <b>Build EV infrastructure</b>    | <ul style="list-style-type: none"> <li>Operate EV chargers for general EVs and the Tesla Destination Charger at our Jeju Office</li> <li>Operate EV chargers at our Pangyo Office</li> <li>Partially switch to EVs for corporate fleet vehicles</li> </ul>  |

## Environmental Training and Eco-friendly Campaigns

We provide environmental training to help our Krew raise their environmental awareness while engaging in a host of campaigns to reduce our environmental impact.

### Introducing Plastic Recycling Machines

We installed AI-enabled recycling machines named Nephron at our offices to build recycling infrastructure. Nephron is equipped with AI to screen and collect high quality recyclable resources, and was introduced to assist our Krew members in directly experiencing and learning the continuous reuse and circulation of resources in their daily lives. Since October 2021, we have operated three Nephron machines at our Pangyo, Gangnam and Jeju Offices to collect 3,933 PET bottles by December that year. These PET bottles will be stored at a resource warehouse operated independently by our partner (SuperBin) and put into the production of high quality recycled materials. We will actively explore ways to use collected resources to take the lead in building and operating a resource circulation value chain.

<Nephron installed at Kakao's Office Building>



## Operating an Eco-friendly In-house Café

Our in-house cafes provide PLA (Polylactic Acid) straws and paper cups coated with biodegradable materials, and have switched from plastics to paper for sandwich packaging to taper off our use of plastics. We operate N7 Café which serves beverages in reusable mugs only to eliminate the need for disposable cups in an effort to reduce waste, and plan to gradually expand its operations. Milk cartons used at in-house cafés are cleaned and sorted, and go to recycling companies in exchange for toilet paper, which is then returned to Krew members to remind them of their contribution to environmental protection. Furthermore, our amenity facilities including office pantries are equipped with UV cup sterilizers, cleaning supplies, and recycling receptacles to encourage the use of reusables and recycling. Our in-house cafeterias and cafés at our new office building we are set to move into in 2022 will provide containers made of recycled materials for all their to-go orders.



## Water Saving Activity

To conserve resources, we are looking for ways to reduce our water consumption to save water at our office facilities. Our new office building set to accommodate our operations in 2022 will equip its hand basins with water saving devices. This will encourage our Krew to save water in their daily routine.










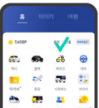





# Green Service

We strive to bring meaningful change through our green service. We develop a wide array of services to resolve social and environmental issues that arise as a result of reckless use of resources, and encourage users to join in the green digital initiative in their daily lives. Furthermore, we team up with our partners, communities, NGOs and other stakeholders to launch a suite of environmental campaigns.

## Green Digital Initiative

### Kakao | Encourage the Green Digital Initiative in Daily Lives Launching Green Digital Campaigns

We launched campaigns to introduce our users to five digital habits that leverage Kakao's technology in protecting the environment.

|   |  |   |
|---|--|---|
| <br>Turn on dark mode on your KakaoTalk app                | <br>If you turn on dark mode on your smartphone,  | <br>You can save battery power consumption by 30%.         |
| <br>Share media on your KakaoTalk app                      | <br>If you share 10 photos a day, and if one million people do the same for one month,  | <br>We can charge 12,600 smartphones for one year.         |
| <br>Change the resolution of the video you are watching. | <br>If you lower the resolution of the video you're watching for two hours a day and if one million people do the same for one month, | <br>We can charge 2,373,300 smartphones for one year.    |
| <br>Use Kakao Bike                                       | <br>If you ride a bike instead of driving a car 15 minutes a day for one month,   | <br>You can protect three pine trees.                    |
| <br>Get your mobile bills                                | <br>If you choose to get 90 mobile bills for one year, and if one million people do the same,   | <br>We can charge 4.45 million smartphones for one year. |

1) Repurpose unwanted products to give them a new function through new design elements rather than merely recycling them

### Kakao | Building a Sustainable Distribution Value Chain Launching Kakao Friends Zero Waste Products

We unveiled eco-friendly products that have the potential to replace disposables. These products rely less on plastic packages from manufacturing to sales, and opt for materials with higher recycling rates. In 2021, we launched 'Winter Snow Village Fleece' fancy goods as upcycling<sup>1)</sup> products made from PET recycled fabric and delivered in biodegradable plastic packaging, and posted KRW 250 million in total sales. To mitigate the use of disposable packaging, we worked to reduce PET boxes for stuffed toy packaging to zero, and switched to environmentally preferred materials for plastic product packaging.



### Launching Eco-friendly Fashion Collections

Kakao's own green brand MAKERS PRIME's launched sustainable fashion collections created exclusively through materials that are both practical and leave less environmental footprint. In the first half of 2021, MAKERS PRIME transitioned all its products into eco-friendly ones and took an eco-conscious approach at least in one of the four components of the lifecycle of materials — production — delivery- use. In the second half, the brand presented a collection that chose environmentally preferred materials from yarn and subsidiary materials to even packaging. MAKERS PRIME also became the first in the domestic

distribution industry to be certified against the BCI (Better Cotton Initiative) and the GRS (Global Recycled Standards).

<MAKERS PRIME's Sales of Eco-friendly Products> As of Dec. 31, 2021

| Category                                      |   | Unit            | 2021 |
|---|---|-----------------|------|
| MAKERS PRIME's sales of eco-friendly products | Total   | KRW 100 million | 17.4 |
|   | Apparel (use of eco-friendly processes, environmentally preferred materials, and natural materials, etc.)     | KRW 100 million | 14.4 |
|   | Accessories (use of eco-friendly processes, environmentally preferred materials, and natural materials, etc.) | KRW 100 million | 3.0  |

### Participatory Upcycling Project

Kakao Makers' green brand MAKERS PRIME launched the Prime People Plastics Bottle Cap Upcycling campaign. When participants collect plastic bottle caps in their PRIME upcycling kit for 40 days and send them, they are recycled into 'contactless key rings' and returned back to participants. This campaign was joined by 811 people, and collected and upcycled a total of 161kg of plastic bottle caps. In February 2022, we also initiated the 1+1 Exchange project to collect old T-shirts from consumers, upcycle them into socks and donate these socks to children's institutions, along with monthly upcycling projects to pick up a range of old clothing and accessories and repurpose them into something completely new. This gives our users an opportunity to intuitively understand the upcycling ecosystem and continuously participate in the ecosystem.



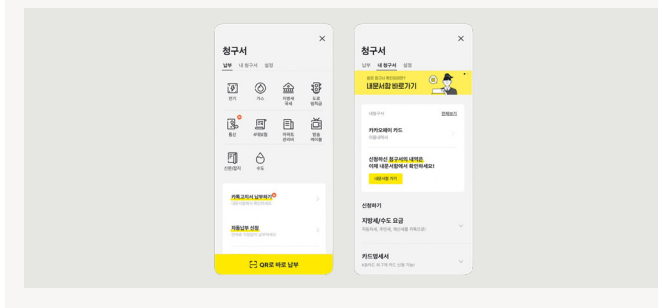
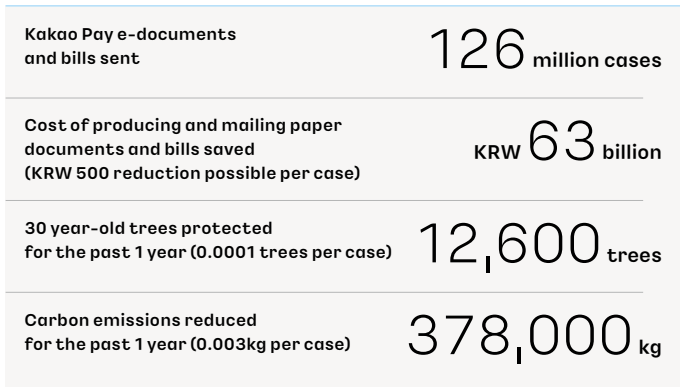
### Kakao Pay | Contributing to the Transition into a Paperless Era

#### e-Document and Mobile Billing Service

Kakao Pay, as a certified e-document relay service provider, operates mobile messenger-based e-document services and makes post notices and paper bills available on the KakaoTalk platform. Kakao Pay's billing service represents Korea's first mobile messenger-based EBPP (Electronic Bill Presentment and Payment) service, and allows users to conveniently manage and pay their utility bills and other wide-ranging daily service bills. In addition to improving user convenience and work efficiency, our e-document and mobile billing services contribute to reducing paper production and use to safeguard forests and mitigate carbon emissions to eventually protect the environment. Such services posted nearly 126 million in the number of paper documents replaced (85 million e-documents and 41 million bills) as of 2021, which translated into approximately 63 billion of cost savings in document production and mailing.

#### <Environmental Impact Mitigated by Kakao Pay e-Document and Mobile Billing>

As of Dec. 31, 2021



### Kakao Mobility | Building an Eco-Friendly Mobility Ecosystem

#### Support for Shift to Electric Taxis

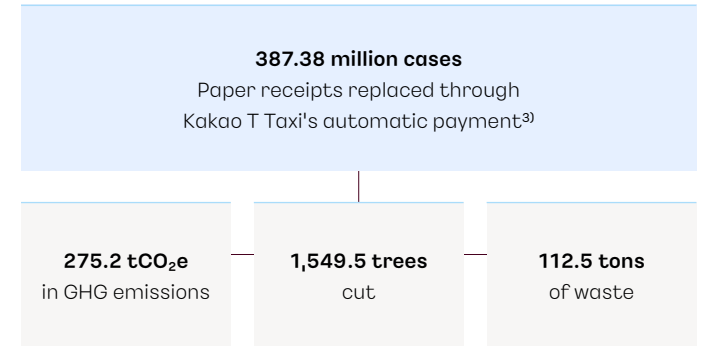
Kakao Mobility opened Electric Taxi Store for Kakao T Blue owner-driven taxis. Converting one general taxi into an electric one helps reduce carbon emissions by nearly 10tCO<sub>2</sub>e per year<sup>1)</sup>. To facilitate this shift to electric taxis for Kakao T Taxi, we join hands with our partners to provide a range of support programs. When a driver purchases their taxi vehicle at our Electric Taxi Store, Kakao Mobility offers them KRW 2 million in subsidies, and additional discounts are made available through its partnership with Kia which manufactures such vehicles. Furthermore, these taxi drivers are provided with cards to access discounted charging at GS Caltex and battery management solutions of LG Energy Solution. Kakao Mobility will prepare services specialized in EVs, e.g. consider driving range with the help of AI when allocating rides to electronic taxis, and will continue to support the shift to electric taxis.

### Eliminating Paper Receipts through Automatic Payment

Kakao T Taxi is replacing paper receipts with digital ones through its usage records and automatic payment. This helped replace 387.38 million paper receipts between 2018 and 2021, which is translated into approximately 275.2tCO<sub>2</sub>e in reduced GHG emissions.

#### <Environmental Impact Reduced by Kakao T Taxi Use<sup>2)</sup>>

As of Dec. 31, 2021 (cumulative)



## 카카오 T 전기 택시 스토어 오픈

카카오 T를 통해 전기 택시를 구매해야 하는 이유



1) Calculated based on CO<sub>2</sub> emissions from LPG-fueled cars published by the Ministry of Trade, Industry and Energy and the average daily driving range of owner-driven taxis published by Seoul City

2) Calculated in accordance with the standards set by the Ministry of Environment in 2019 in calculating the environmental impact of paper receipts

3) Calculated by considering that taxi receipts are 40% of general receipts in length on average



## Launching Green Campaigns

### Collaborating to Create Carbon Offset Forest Paths for the Forestry Exhibition

In November 2021, Kakao signed an MOU to create forests for the Gangwon Forestry Exhibition 2022 with Gangwon Province, the Gangwon Forestry Exhibition Steering Committee and the Gangwon Economic Promotion Agency, and donated KRW 500 million to the carbon offset forest path project undertaken as part of the exhibition. These carbon offset forest paths will be created in a 40,000m<sup>2</sup> forest in Goseong, and are expected to capture 36 tons of carbon per year and offset nearly 1,089 tons of carbon emissions for the next three decades.

#### <Forestry Exhibition Carbon Offset Forest Paths In Goseong>

As of Feb. 2022

|                                  |   |  |
|----------------------------------|---|--|
| 40,000 m <sup>2</sup><br>in size | 36 tons<br>of carbon<br>captured per year | 1,089 tons<br>of carbon emissions<br>to be offset (30 years) |
|----------------------------------|---|--|

### Protection of Biodiversity

#### Protecting Habitats of Endangered Species

Kakao Together, Kakao's CSR platform, launched a campaign titled '#Small Actions\_Environment Day' in commemoration of World Environment Day. We raised KRW 1,000 for every post made by participants to pledge their commitment to environmental protection, and made our own special donations worth KRW 4 million. The campaign was joined by a total of 75,000 people, and KRW 32 million raised as such was donated to environmental protection projects. In particular, these funds went to support a project to monitor endangered species and create signs to protect their habitats and a project to perform monitoring with the help of professionals and develop PR facilities to establish habitats for otters on the Han River. We made additional donations along with the funds raised through our Environment Day campaign, and proudly did our part in preserving wild animal habitats and raising awareness about the importance of biodiversity.



#### Protecting Jeju's Marine Ecosystem from Pollution

Our Jeju Impact Challenge aims to support environmental impact mitigation projects undertaken in the Jeju community. In 2021, we chose to support the Diphda Jeju<sup>1)</sup> Project, designed to highlight the severity of marine ecosystem pollution in Jeju and actions to be taken to prevent such pollution, to help resolve local challenges and offer financial support. The Diphda Jeju Team pinpointed issues at hand through Jeju Impact Challenge and produced videos on the collection and treatment of marine litter and Zero Waste activities we can take in our daily lives while uploading them on social network channels to publicize small yet impactful actions that we can take daily to protect oceans and the planet.



1) Photo provided by courtesy of the Diphda Jeju Team

#### Carbon Neutral Forestation Project

Kakao Makers implemented the Carbon Neutral Forestation Project on Arbor Day. As part of this project, we launched 'Tree Growing Mugs' and 'Birth Tree Fabric Posters' which used trees as a motif. One tree was donated for every two mugs and one poster sold, and a total of 2,000 young trees were donated to a tree planting project to help create a forest in Jeongseon, Gangwon Province. The signboards put up in the forest had the names of those who purchased mugs and posters engraved to archive the meaning and value of their participation.



#### Creating Trails in Songpa

KakaoTalk Gift launched a promotional event titled 'Share your joke to donate trees' on April Fool's Day and Arbor Day. When users wrote posts on creative tricks on the event page and shared the event, Kakao reciprocated by donating trees. The event was joined by a total of 210,000 users and shared 350,000 times, and we donated 10,000 trees in return to reduce particulate matter and carbon emissions while creating trails in the Songpa area to serve as rest areas for people.



#### Support for Wildfire Recovery

Kakao Makers launched sweatshirts, mugs and air purifying posters inspired by class 1 endangered plants as motifs to help North Gyeongsang and Gangwon regions to restore their forests burned down due to wildfires. Two trees were donated for every sweatshirt sold and one tree for every two mugs and two posters sold, and the entire proceeds to fund the planting of 3,304 trees in total went to an NGO named Forest for Life to restore forests hit by wildfires. Furthermore, Kakao Together engaged in emergency fund-raising to help those affected by wildfires; more than 1.11 million people participated as of March 2022 to raise over KRW 2.5 billion.



# Social

## Why This Matters

There exist increasing stakeholder interest in and expectations for IT businesses to fulfill their social responsibility, highlighting the need for such businesses to preemptively identify diverse stakeholder requirements and reflect them into their business operations. In particular, the protracted COVID-19 pandemic gives rise to mounting uncertainties in business operations as well as in the daily life of community members. As a member of the community, Kakao also needs to take responsibility for working together to resolve social challenges and provide opportunity for shared growth with partners and users.

## Approach

Kakao pursues shared growth with stakeholders as its core value. We support our Krew members in multiple ways to take the lead in their growth and create a healthy ecosystem for wide-ranging partners including content producers and suppliers to help establish their competitive edge. We also operate a host of programs to protect the rights of users and strive for the right balance between data connectivity and data protection to fulfill our digital responsibility. Furthermore, we support social innovators and engage users in creating social impact on Kakao platforms to continuously disseminate the value of public interest within society.

## Reporting Contents

|              |    |
|--------------|----|
| · Kakao Krew | 43 |
| · Partner    | 53 |
| · User       | 60 |
| · Community  | 74 |

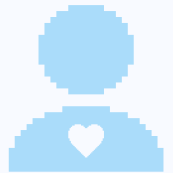
## 2021 Highlights

### Krew members who completed ethics and human rights training

# 99.8%

in 2021

Out of 2,640 Krew subject to such training



### Win-Win Growth Index<sup>1)</sup>

# Excellent

in 2020

1 step increase from the previous year

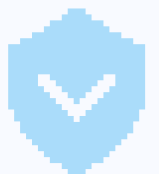


### RDR(Ranking Digital Right)

# Ranked 6th

in 2021

Evaluating digital companies on their performance in human rights protection (out of 14 global digital platform companies<sup>2)</sup>)



### Total donations made through Kakao Together

# KRW 47.1 billion

On a cumulative basis since Dec. 2007



1) 2020 evaluation results were published in 2021 (around September each year)

2) Twitter, Meta, Microsoft, Google, etc.



# Kakao Krew

Kakao refers to its employees as Krew: this defines the identity of our Krew both as crew members who work together on the ship 'Kakao' and as colleagues who jointly navigate uncharted water. We set the right condition for our Krew to take the lead in their growth journey, fully support them to unlock their potential, and pursue mutual growth between our Krew and Kakao.

## Human Rights Management

Kakao complies with international human rights standards based on its human-centered philosophy and takes responsibility for respecting human rights in interacting with all its stakeholders.

### Kakao's Business and Human Rights Statement and UNGC Membership

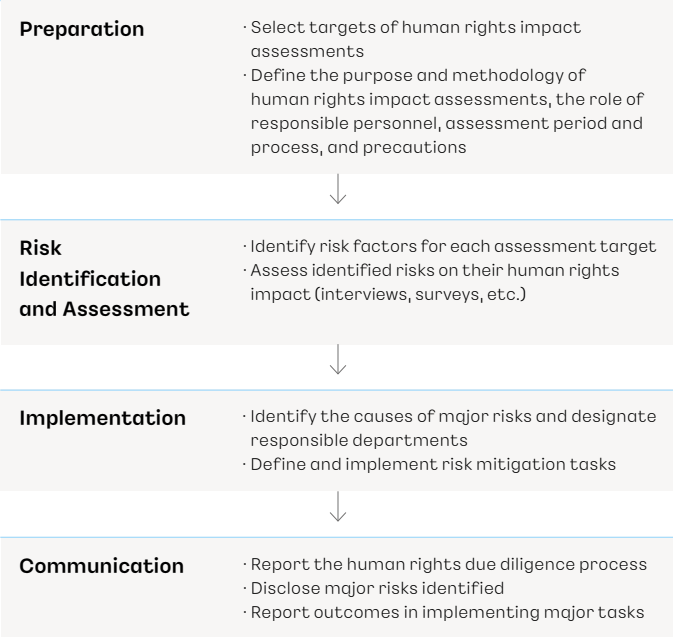
We endorse international human rights standards set by the United Nations and the International Labor Organization among others, and abide by domestic laws and regulations that reflect these standards. In January 2021, we established the Kakao Business and Human Rights Statement that embodies our philosophy and principles on human rights management, and then joined the UN Global Compact (UNGC) in February 2021 to observe the 10 principles in the areas of human rights, labour, the environment, and anti-corruption that constitute the core values of the UN. In conformity with these principles, we will ensure that our stakeholders we interact with do not experience any kind of human rights violation.

- [Link to Kakao's Business and Human Rights Statement](#)
- [Link to the Kakao's UNGC CoP webpage](#)

### Human Rights Risk Management

Following the establishment of our Business and Human Rights Statement, we analyzed our potential human rights risks in consideration of the characteristics of our business operations in 2022. We interviewed major internal/external stakeholders to screen these issues and conducted human rights impact assessments on all our Krew members and some of our partners based on analysis results. The assessment outcomes will inform our efforts to create a company-wide system to advance human rights management, including regulations, institutional improvements, and remedy procedures.

### <Human Rights Impact and Due Diligence Process>



### Human Rights Violation Reporting & Handling Process

We operate a channel to report issues that give rise to human rights violation. Any stakeholders related with Kakao may submit their reports, and their identity and reports remain strictly confidential in accordance with applicable laws and our internal regulations. These whistleblowers may ask for anonymity so that they are not disadvantaged as a result of their counseling or whistleblowing, and necessary actions can be taken including legal support and relocation in consultation with concerned departments. Submitted reports are relayed to relevant departments, solutions are developed through internal procedures, and the results are transparently communicated to whistleblowers.

- [Link to Kakao's human rights violation reporting channel](#)

## Human Rights Awareness Improvement Training for Our Krew

We provide company-wide compulsory training to help our Krew improve their awareness on human rights issues and create a healthier and safer workplace. Each year, legally mandatory training is conducted to prevent workplace harassment and sexual harassment and to improve perceptions on disability, and all our Krew members completed such training in 2021. In the first half of 2021, we provided 'All Kakao Krew Must Know about Ethical Management' training to the entire Krew members to help them better understand our ethical management principles and human rights issues.

### <Krew Subject to Human Rights Training and Their Training Completion>

| Category  | Krew Subject to Training <sup>1)</sup> | Completion Rate |
|---|--|-----------------|
| Compulsory training <sup>2)</sup>   | 3,350 persons                          | 100%            |
| Company-wide training on ethical management principles and human rights <sup>3)</sup> | 2,640 persons                          | 99.8%           |

- 1) All Krew members including workers under indefinite-term employment, contract workers and part-time workers
- 2) Compulsory training is provided to all Krew as well as new hires on a monthly basis
- 3) Company-wide training on ethical management principles and human rights was provided to incumbent Krew members at the time of training in Q1 2021.

### <Company-wide Training on Ethical Management Principles and Human Rights>

**All Kakao Krew Must Know about Ethical Management**

- Concept of ethical management, international standards, attitude to embrace ethical management, AI ethics, Kakao Business and Human Rights Statement, etc.
- Cartel, ban on unfair collaborative acts, unfair transactions, and abuse of power in contract signing
- Human rights sensitivity, diversity-based anti-discrimination, guarantee of freedom and human rights protection

**Diversity Policy**

Kakao respects individual Krew members for their diverse backgrounds and values, and strives to promote its organizational diversity and create a flexible culture. We value the diversity of talent even from the recruitment phase and prohibit discrimination on the grounds of the country of origin, race, nationality, gender, age and disability.

**Institutional Support to Increase Diversity**

Providing Krew with Disabilities with an Opportunity to Discover Their Potential

With Linkage Lab, our subsidiary-type standard worksite for the disabled, we strive to deliver greater opportunities to discover one's potential through the 'linkage' created between people with and without disabilities. Linkage Lab adopted universal designs<sup>1)</sup> to enable its Krew to perform internet service work within the scope of their abilities, including search operations, content production, audio transcription and accessibility testing. Our Talk Clinic, a venue for massage therapy for our Krew members, hires visually-impaired individuals with government-certified masseuse/masseur qualifications to provide Health Keeper service while our in-house cafés serve beverages with the help of baristas with developmental disabilities. As of December 2021, Linkage Lab employed 84 employees with disabilities in total.

A Great Workplace for Parents

We implement various policies to improve the diversity of our Krew, and especially support our Krew with young children to balance work and family life. We operate daycare centers — Neul Yesol, Oh! Little, and Space Dot Kids — at our Pangyo and Jeju Offices to serve as a trusted companion for our Krew along their journey of parenthood. Our female Krew members are able to freely access nursing rooms within their office during work hours. Besides, we provide legally-stipulated leave programs for both mothers and fathers, including maternity/miscarriage/stillbirth leave, parental leave, prenatal check leave, infertility treatment leave, and family care leave. In particular, all our Krew whose children are eight years old and under or in grade 2 and under are eligible for two-year parental

leave (including 1-year paid leave). Our subsidiary dktechin also preemptively embraced flexible work hours and provides additional parental leave on top of a mandatory one while operating reduced work hours for expectant mothers during their pregnancy without wage decreases, contributing to retaining female Krew. In recognition of these achievements, both Kakao and dktechin acquired the family-friendly business certification in 2021 granted by the Ministry of Gender Equality and Family.

**Communication-based Labor Relations**

We respect the right to organize, the right to collective bargaining, and the right to take collective action in accordance with Korea's Constitution and Labor Relations Act as well as ILO (International Labor Organization) declarations. In August 2021, our collective agreement was renewed through collective bargaining with our labor union, and this agreement guides our efforts to maintain and improve Krew's labor conditions. We also regularly operate the Roundtable as a labor-management consultative body, and its eight labor representatives are directly elected by our Krew to duly represent the voice of all Krew members. Through the Roundtable, we aim to build a trustworthy labor-management relationship by facilitating mutual communication.

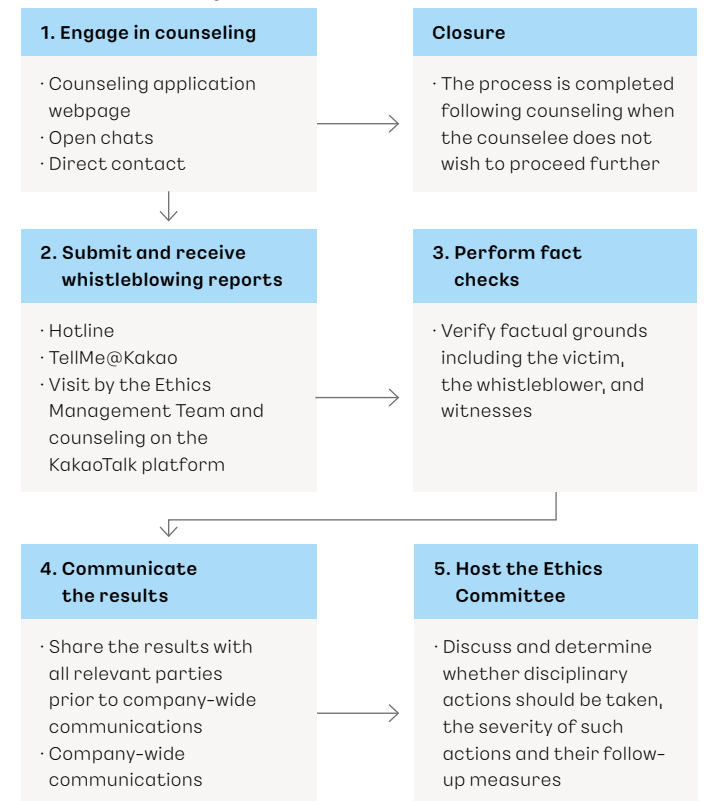
**Grievance Handling Process for Krew**

We operate diverse counseling and whistleblowing channels for our Krew. In particular, our grievance counseling channels Hotline and Tellme@Kakao ensure that whistleblowers' reports and identities remain confidential, and explicitly prohibit disadvantages that may occur as a result of whistleblowing. At least once a year, we elaborate on our grievance handling process for our Krew, and guarantee fairness and objectivity by operating a dualized implementation organization that separates the roles of factual investigation and disciplinary operations from HR actions and advisory. When disciplinary deliberations are made in conformity with internal regulations, Standing Ethics Committee is organized with the CEO, four members appointed by the CEO, and four members nominated by the Roundtable to conduct in-depth discussions.

**<Grievance Handling Channel>**

|   |  |
|---|--|
| <b>Whistleblowing through Hotline</b>       | Operate the grievance reporting and counseling channel for Krew to keep the identity and information of whistleblowers confidential and receive reports through e-mail, post, and our website  |
| <b>Counseling at Labor lab for Krew</b>     | Submit suggestions to improve our work methods and arrangements and/or related questions through e-mails, open chats, and in-person meetings   |
| <b>Roundtable grievance-handling member</b> | Promptly identify meaningful solutions through the Roundtable, a labor-management consultative body, and communicate them to the Krew members who raised grievances  |
| <b>Time's Up TF</b>                         | Our taskforce team voluntarily organized by our Krew to prevent sexual harassment and minimize the injury caused by assisting Krew in the counseling, whistleblowing and grievance handling process and their return to a safe workplace |
| <b>TellMe@Kakao</b>                         | Our intranet whistleblowing system exclusively open to our Krew to report any behavior that runs counter to our Code of Ethics or receive counseling concerning such cases either anonymously or under one's true name                   |

**<Grievance Handling Process for Krew>**



1) Design of products, services and facilities to make them accessible to all people, regardless of their age, gender, nationality, or disability

### Talent Recruitment and Growth Support

Kakao ensures to provide a culture-led workspace, rather than people and systems, so that all its Krew members take the lead to the fullest possible extent. At the center of such a workplace are our Krew who take the initiative in their work and growth journey. Our Krews continue to ask 'Why?' to grasp the essence of an issue and make the ordinary extraordinary.

#### Recruiting Approach

With the vision of 'creating a better world with technology and people', we are fully committed to recruiting and nurturing outstanding talent who will be front and center in changing the world for the better.

#### Talent Pipeline Development Strategy

##### Internships and Open Recruitment

Our open recruitment for new developers, initiated in 2017 in accordance with our recruiting approach, follows procedures designed to verify the actual development competency of applicants rather than simply relying on the qualifications stated in their resumes. Applicants are only required to input their basic contact information before taking the coding test, and no other documents will be screened. We have also operated our internship program in alignment with recruitment since 2019 to hire individuals with multilateral thinking, values and unique rational and emotional qualities that are required in the rapidly shifting and growing big data, AI and blockchain industries.

#### Kakao Track

Kakao has been leading the Kakao Track project for 15 years since 2007 under the industry-academia educational partnership signed with Jeju National University's Center for Innovation in Engineering Education, involving students from the Department of Computer Engineering and the Department of Computer Education, to nurture professionals with hands-on experience-centered capabilities. This fit-for-purpose educational system produces talented individuals who can be assigned to work immediately after graduation through practical education. Through the partnership, we contribute to providing field-focused engineering education and enhancing its curriculum. Junior and senior students among Kakao Track participants are provided with a four-week winter field training opportunity, while being supported through mentoring offered by our Krew. In addition, we have continued to donate KRW 20 million in scholarship to 20 students each year to motivate students to join our Kakao Track program.

As of Feb. 2022

| No. of Kakao Track graduates (cumulative) | Graduates who landed a job in their major field | Graduates who joined Kakao |
|---|---|----------------------------|
| 123 persons                               | 82.1%   | 13%                        |

#### <Milestones Reached by Kakao Track>

- 2007: Signed an industry-academia cooperation agreement with Jeju National University (university financial support project by the Ministry of Commerce, Industry and Energy)
- 2007-2011: Implemented phase 1 of the project
- 2012-2021: Implemented phase 2 of the project
- 2022-2027: Will implement phase 3 of the project

#### Support for K-Digital Training

As the 'contactless' trend is spreading due to the 4th Industrial Revolution and COVID-19, demand for software talent is ever-growing. In October 2021, we joined the Digital Leading Company Academy led by the Ministry of Employment and Labor and the Korea Skills Quality Authority to support the development of young software talent. In particular, we are designing 'Kakao cloud developer training courses' and 'Kakao cloud engineer training courses', and our incumbent Krew members or Kakao-certified instructors will be participating in those courses. After the completion of training, we will monitor trainees on their employment and job assignment for six months.

#### Job Creation Partnership

In February 2022, we formed a partnership to join the YouthPolicy (ON) project undertaken by the Korean government to invest KRW 500 billion over the next five years to create more than 20,000 jobs and nurture digital professionals. Kakao and its Community members plan to directly hire 10,000 talented individuals in total. We will also open our AI Campus currently under development for Krew training to young people to nurture 6,000 or more digital professionals while supporting startups with investment and employment to create over 4,000 jobs.

#### <Talent Recruitment and Support for Growth across the Kakao Community>

##### Kakao Brain

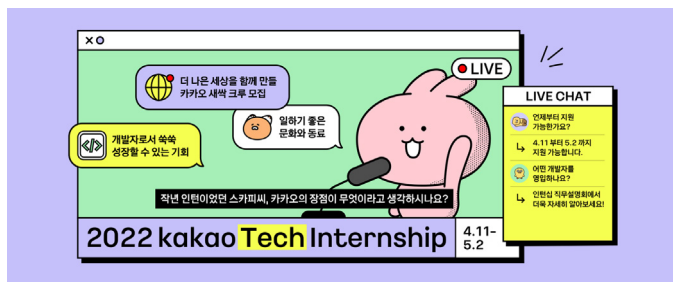
- Operated summer and pathfinder internships to nurture AI talent in Korea and provide a variety of research opportunities

##### Kakao Pay

- Continued to create jobs by increasing employment by nearly 15 times over the past 4 years, and expanding the ratio of youth and full-time employment

##### dktechn

- Continued to employ full-time workers and create jobs for youth
- Preemptive 'flexible working hours' introduction and implement
- Received the Prime Minister's Commendation for contribution to creating jobs in 2021
- Received the Minister of Science and ICT Award in the job innovation category at the Korea IT Service Innovation Awards 2021



**Our Approach to Supporting Krew's Growth**

We offer optimal conditions to Krew who are committed to their growth to truly take the lead in their growth journey. We recognize that Krew's learning activities can't be standardized given their diverse job categories, years of service, and learning purpose and style, and thus provide them with training programs made available in a wide variety of systems and formats so that they decide their own growth goal and method and we support them along the way. We also actively encourage Krew to share their knowledge with the belief that they can grow even more when they share their knowledge, experience, and reflections with other Krew members.

**<Our Approach to Growth Support Programs>**

- **We promote voluntary participation.**  
We help motivated Krew to take action.
- **We do not standardize nor generalize.**  
We respect the different motivations, learning styles and situations of individual Krew members.
- **We share and grow.**  
Our Krew grow while sharing their knowledge, experience and reflections, and learn from the vivid knowledge of their colleagues.
- **We provide processes and conditions.**  
We support Krew with appropriate motivation, practice opportunity and continuous feedback in real world settings consistently, rather than on a one-off basis.
- **We value the role of leaders.**  
We continue to support leaders with motivation, capacity building and opportunity with the belief that learning forms an essential part of work.

**<Growth Support Programs by Type>**

|                           |  |
|---------------------------|--|
| <b>Internal training</b>  | <ul style="list-style-type: none"> <li>· Onboarding training for newly-hired Krew</li> <li>· Leadership training for leaders</li> <li>· Job-specific competency training</li> <li>· Knowledge sharing led by external experts</li> <li>· Internal knowledge sharing</li> </ul> |
| <b>Support for growth</b> | <ul style="list-style-type: none"> <li>· Purchase and lending of work-related books</li> <li>· External training and conference attendance</li> </ul>  |

**Onboarding Training for Newly-hired Krew**

We provide onboarding training to newly-hired Krew members to facilitate their integration to the organization. Prior to starting work, they are briefed on their work assignments, platforms they will use, and necessary skill sets. Once they start their work, our Onboarding Day program provided on the very day they join the company and Onboarding Monthly program help them quickly understand Kakao's value and work approach. For Krew members who start their first job at Kakao, we offer them a more diverse and in-depth onboarding program. We launched a 3-month onboarding program for new developers hired through open recruitment in 2021, spanning from pre-onboarding to improve understanding on Kakao, its work, and organization and common training for problem-solving and collaborative capacity building to technical onboarding to help learn the right skill sets for the given job. In tandem with this, differentiated onboarding programs were implemented by job category (tech, service biz, and global interns) to fully assist new Krew members in opening a new chapter in their career journey at Kakao.



**Leadership Training for Leaders**

Our newly-appointed leaders receive onboarding training. In 2021, such training was provided nine times in total (5 times for cell and part leaders, and 4 times for team leaders) to systematically assist them in fulfilling their role in promoting organizational performance and growth. In addition, we engaged team leaders in discussing our future course ahead on three occasions while providing them with training on performance management, organizational management, goal setting, and appraisal interviews.

**Tailormade Job Competency Training by Job Category**

We present optimal growth pathways to each job category by looking for the method and content that best suit their distinctive characteristics. For Krew in technology positions who are required to keep pace with the rapidly changing technology landscape, we have continued to host seminars on key technology trends and opened basic competency courses for junior developers in reflection of requirements made by incumbent Krew in development positions. For service positions that deal with data in day-to-day work, we provided regular data analytics courses (Python, SQL, Excel) throughout the year while Krew in design positions were provided with Online Arts Tour and other inspirational programs to help facilitate their creative thinking.

**Knowledge Sharing Program**

We actively share our best-in-industry knowledge through internal/external knowledge sharing programs hosted in diverse format. Our monthly Open Studio and Wave programs invite lecturers outside Kakao to learn from their insights, and they served to disseminate expert knowledge on such key agenda of the IT industry as metaverse, personal data use, and development career among our Krew members. Connecting Krew and Tech Talk events are held three times a month on average as internal knowledge sharing programs for our Krew to directly share their professional knowledge and project case studies, and they helped share the exceptional knowledge and experience of our Krew at all levels concerning COVID-19 response projects, digital responsibility, NFT and cloud among others. These Krew members who share their knowledge and experience through such internal knowledge sharing programs are proudly called Kakao Guru, and we ensure that knowledge sharing activities continue on an on-going basis.





### Measuring the Effectiveness of Growth Programs

We heed the feedback provided by Krew on our growth programs to measure their effectiveness and explore future ways forward. Such measurements cover Krew's satisfaction, achievement, applicability, and performance contribution to see whether they have resulted in positive behavioral change on the part of Krew, and ultimately aim to establish a culture conducive to work engagement and pursue business growth.

### Growth Support Programs

To support motivated Krew to choose their own growth pathway that can best cater to their individual needs, we operate growth support programs, spanning reading and subscription content, external on/offline training, and attendance at domestic/overseas conferences. Our Krew are fully supported without cost limitations as to work-related content and training, and our growth support programs ensure many of our Krew continue with their learning journey in their own distinctive ways. In 2021, 1,388 Krew members used such programs.

As of Dec. 31, 2021

**Numbers of Krew who used growth support programs**  
40% of total workforce (3,472 persons) in 2021

**1,388** persons

#### Support for Book Purchase and Lending

As reading is one of the most preferred growth pathways chosen by our Krew, we operate wide-ranging programs to support book purchase and lending. Not only do we pay all expenses for Krew to purchase necessary books, but also operate our e-library to provide all our Krew with easy and quick access to work-related e-books. Our e-library is updated with new books and books requested by Krew each week, and publishes monthly newsletters containing curated theme-specific books to help Krew make reading choices. In 2021, the e-library was used by 1,119 Krew members, and 332 of them were active readers accessing the library 5 or more times.

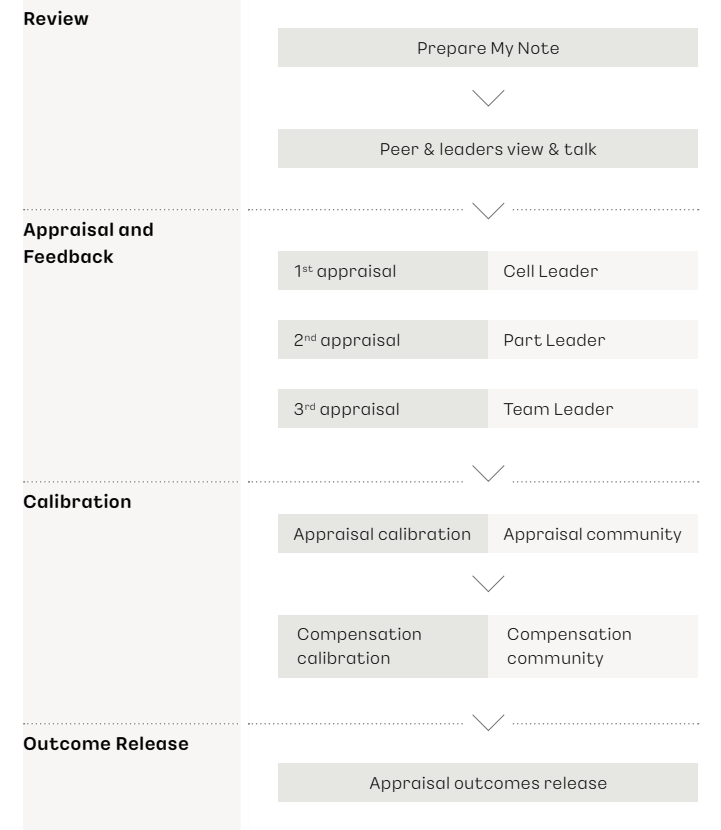
#### Support for License Acquisition

Our growth support programs for Krew also include training courses that help them acquire work-related licenses. In 2021, this support program enabled eight Krew members to achieve licenses related to their work and technology, from certified anti-money laundering masters and CKAs (Certified Kubernetes Administrators) to google project management and UX (User Experience) design qualifications.

### Performance Appraisal and Compensation Approach

Our performance management system aims to facilitate the growth of individual Krew members and their collaboration with colleagues. On top of operating a fair performance management system that rewards the Krew for their competencies, we provide the best benefits in the industry to those who perform their work with creativity. In 2021, we introduced a stock grant system to retain qualified employees over the long term, to motivate our Krew to improve performance, and to ultimately enhance our corporate value. Hence, in May 2021, we offered 472,900 shares as stock options to a total of 2,506 Krew members. Those with a service period of more than a year were granted 200 shares while the newly hired and those who worked more than 6 months and less than a year were granted 100 shares. They can exercise 50% of their stock grants after two years of service, and 100% after three years of service.

#### <Performance Appraisal and Compensation Process>



#### Data Analytics Course for Service Business Positions

##### Program Overview

- Identify business growth opportunities by improving the data analytics capabilities of service planners

##### Positive Impact

- Develop service data analytics skills through the use of data analytics tools
- Improve the efficiency of service operations by building dashboard/automation systems
- Identify user needs and improve services through data analytics

Transfer of training<sup>1)</sup>  
(on a scale of 1 to 5)

**4.2** points

#### Professional Course for Tech : Communication

##### Program Overview

- Improve organizational competitiveness by minimizing communication errors in cross-functional collaboration

##### Positive Impact

- Develop logical communication skills to minimize work efficiencies while engaging in collaboration
- Improve writing through one-on-one consulting and improve work efficiency through scenario-based communication skill practices

Transfer of training<sup>2)</sup>  
(on a scale of 1 to 5)

**4.2** points

Transfer of learning<sup>3)</sup>  
(on a scale of 1 to 5)

**4.1** points

1) Leverage data analytics to measure the responses made by participants on whether they were able to develop skills applicable to their work (on a scale of 1 to 5)

2) Measure the responses made by participants on whether communication skills increased as a result of training helped improve their work performance or reach the set goal (on a scale of 1 to 5)

3) Measure the responses made by participants on whether positive impact was created as a result of training on Krew/organizations collaboration with relevant organizations

**Performance Appraisal and Compensation Systems**

Our Krew performance is assessed through 360-degree reviews made from positive viewpoints by the Krew members themselves, colleagues and leaders based on the evaluations and feedback of leaders. Leaders take the primary responsibility for this appraisal process in accordance with the Growth Stage framework, and perform achievement assessments on Krew's attainment on individual tasks and competency assessments on their knowledge, skills and behavioral patterns: the former is closely aligned with the short-term compensation of performance bonus rates, and the latter with the long-term compensation of annual salary increase rates. Such appraisal and compensation results are confirmed through the calibration sessions attended by the appraisal/compensation community composed of the heads of office, team leaders and job boards to engage in group discussions to generate standardized results, and are then released to the Krew. Each year, full-time Krew members<sup>1)</sup> receive performance appraisals, and such regular performance assessments are made once a year. In addition, we operate the Check-in interim performance management program at least twice a year for leaders and Krew members to communicate on performance on an on-going basis.

**Case Kakao's Way Forward, Improving Our HR System through Krew Feedback**

Following the merger of Kakao and Daum in 2015, the 'Way TF' was created to clarify our work methods. In March 2021, 'Way TF' Phase 2 was initiated to improve the HR system with our Kakao style approach as we recognized the need to upgrade our HR assessment and compensation programs. We ensured that not only the HR Division but also Krew's feedback plays a role in improving a range of HR programs, and engaged our Krew from different functions to share ideas and look for solutions. In Phase 1, major agendas and priorities were selected through collecting Krew's feedback on our HR system. The improvement plans identified on our compensation and benefits system informed our decision to grant stock options to all Krew members and create Benefits as our welfare point program.

Phase 2 dealt with areas of improvement in our current HR system including our appraisal and compensation systems, our approach to work arrangements, and prevention of workplace harrassment. In particular, 'Way TF' revised the questionnaires of the colleague and organizational head view & talk program, and discussed various ideas on work arrangements that can contribute to Krew's voluntary engagement and collaboration. Besides, we explored ways to implement improvement tasks spanning from the prevention of workplace harassment to its follow-up management to provide the optimal environment for our Krew to fully unlock their potential. Going forward, Kakao will explore all possible solutions in any way it can for the betterment of its HR system.

**Milestones Reached in the Way TF Season 2**

**Phase 1**

- Collected feedback on the HR system
- Shared the results and set priorities
- Implemented improvements on compensation/benefits
  - Granted stock options to all Krew
  - Identified improvements to benefits programs

**Phase 2**

- |  |  |   |
|--|--|---|
| <p><b>Track A Performance Appraisal/Compensation</b></p> <ul style="list-style-type: none"> <li>· Discussed the realignment of the appraisal system           <ul style="list-style-type: none"> <li>- Revised the questionnaires of the colleague/leaders view &amp; talk               <ul style="list-style-type: none"> <li>- Bolstered support for appraisal managers</li> </ul> </li> </ul> </li> <li>· Discussed the realignment of the compensation system           <ul style="list-style-type: none"> <li>- Made a list of information in need of disclosure</li> </ul> </li> <li>· Discussed the realignment of the Stage           <ul style="list-style-type: none"> <li>- Improved the Stage Up process</li> </ul> </li> </ul> | <p><b>Track B Work Arrangements</b></p> <ul style="list-style-type: none"> <li>· Shared work experience</li> <li>· Suggested necessary improvements</li> </ul> | <p><b>Track C Anti-harassment</b></p> <ul style="list-style-type: none"> <li>· Took stock of the current status and identified issues</li> <li>· Elaborated on short/long-term improvement tasks</li> </ul> |
|--|--|---|

1) Performance appraisals were performed on 2,460 full-time employees in 2021.



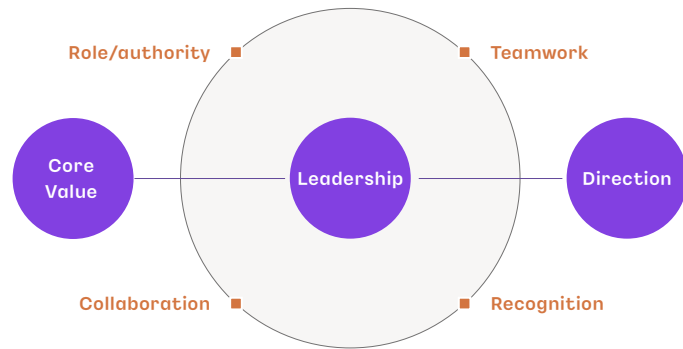
### Innovative Work Way

We pursue trust and teamwork-based work methods to motivate our Krew to take the lead and generate synergy through collaboration. We engage in a host of activities to strengthen Krew's work engagement, responsibility and flexibility.

#### Employee Satisfaction and Engagement Surveys

We conduct employee satisfaction and engagement surveys through 'organizational health checks'. Each September, organizational health checks are made to identify the way forward and necessary improvements to pursue sustainable growth. In 2021, we gauged our Krew's awareness in line with the three criteria of Alignment, Execution and Energy. A total of 250 organizations received such health checks, and the results were shared through organization-specific reports.

#### <Kakao's Health Check Framework>



#### ▲Talent Recruitment

Hire and retain

#### ▲Positive Sentiment

Growth, value, and work commitment

- **Alignment:** Alignment mutually coordinated among the company, the organization and individual Krew members
- **Execution:** Measurement of elements and major conditions required for Krew to perform their work in real-world settings
- ▲ **Energy:** Emotions and sentiments experienced by individual Krew members in the workplace as a result of Alignment and Execution

It turned out that positive perceptions on the 'positive work experience' variable which is the focus of our employee satisfaction and engagement surveys increased by 2% year-on-year to 71%. This served as the basis to engage in in-depth discussions among management including the CEO and identify implementation plans. In alignment with this, we hosted a teamwork support organization seminar based on organization-specific reports, and disclosed full survey results through the company-wide open talk along with the CEO and announced follow-up tasks.

#### Kakao Community Satisfaction Survey

To promote communication as one of the Kakao Community's core values, employee satisfaction and engagement surveys were performed simultaneously on 14 members of the Kakao Community in 2021 to accurately take stock of their current status and identify improvement activities in reflection of organization-specific conditions. The survey questionnaire consisted of 50 common questions and additional questions made in reflection of requirements of respective Community members, and the response rate amounted to 74.9%. The survey results were shared through the reporting system of each Community and were discussed in-depth through CEO meetings and Community leader meetings.

#### Improvements Made Based on Survey Results

Employee satisfaction and engagement survey results were used to interpret the analytical data of all primary organizational leaders by group (year of employment, age, job category, etc.) and hold meetings to identify necessary behavior changes. The analysis results were shared among all organizational members through the primary organizational leader's open talk, and produced meaningful insights in relation to our 2021 performance and team operations through team leader training. In 2021, support was provided to readily apply for one-on-one coaching in the reporting system to seamlessly encourage result-based behavioral change. Furthermore, we rendered our HR system design and improvement more statistics-driven in connection with other HR data.

### Agile Coaching

The Agile Coach Part created in 2020 contributes to the growth of our Krew, organization and service under the mission of 'improving the maturity of Kakao's work culture'. Agile coaches take a holistic view of our work methods from the third-party perspective. They ensure that we bring 'good' impact to the market through the services that we provide, pursue shared growth between these services and our Krew, and help Krew and their organization complement each other and develop along this journey. Different topics are chosen for individual coaches, and diverse formats are made available, including training, counseling and workshops. Since the Agile Coach Part was established, the organization assisted more than 1,000 Krew members in addressing their concern and accompanies them along their growth journey.

#### <Role of Agile Coaches>

- **In-house consultant:** Assess the organization to identify issues, develop change plans and implement such plans
- **Change agent:** Implement and manage the organization's change. Proactively engage in improving work methods by using system thinking and behavioral science, rather than one-off events or campaigns
- **Problem solver:** Eliminate barriers, mediate conflicts and maintain a transparent and smooth flow of information within the organization. Interview members to identify fundamental problems and focus on addressing the causes rather than symptoms
- **Teacher:** Help Krew members to internalize Agile values and principles as well as practices and understand how this works. Perform an important role of elevating the competency of members through continuous training
- **Leader:** Set an example for Krew members to follow by making the first move and exercising leadership in a non-conventional way, and help Krew execute their competencies within the system through system management as opposed to people management.



1) Source: <http://agilecoachcompetencyframework.com/>

**Case** **People Analytics for Strategic Talent Management**

Kakao accumulates HR, behavior, and perception data, and makes data-driven decisions in relation to its Krew. We build databases in secure servers and leverage R Programming and Python to perform descriptive/diagnostic/predictive analyses. Analysis results are reported to decision makers in useful formats including dashboards for leaders, dashboards for HR managers, the perception data result reporting system, and topic-based analysis reports through the use of visualization tools such as Tableau.

**Improving Krew's work experience**

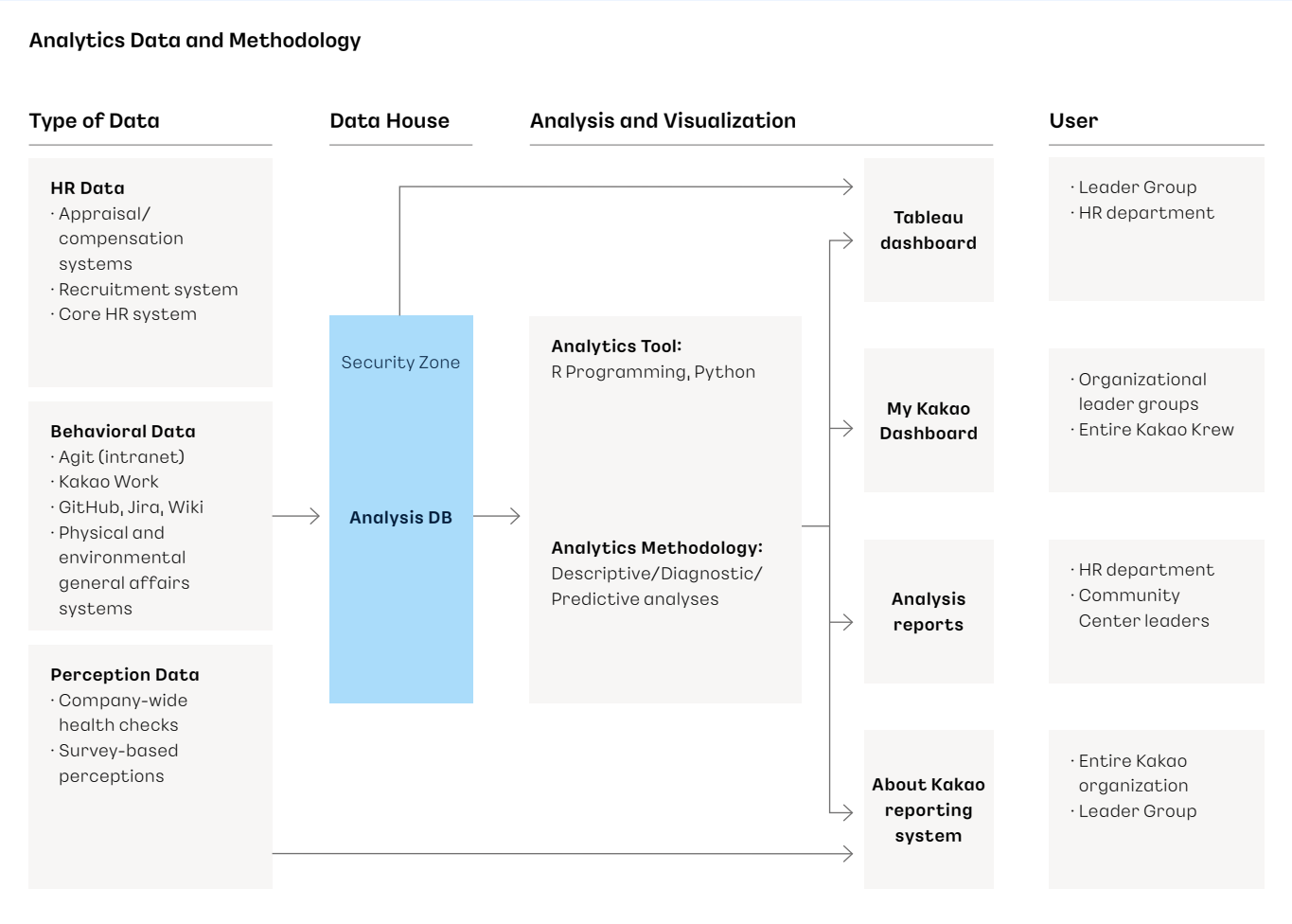
We took note of the findings from organizational health checks that colleagues have significant impact on individual Krew members and created a connections database through internal network analyses. In so doing, we define key networking members as colleague hubs, and perform correlation analyses to find insights for improving krew's work experience.

**Bolstering teamwork**

We used data on 93 teams to characterize effective teams through such keywords as flexibility, dedication, team orientation, complementary behavior and team leadership. We continue to operate programs to measure and support teamwork in line with such characteristics.

**Increasing work efficiency**

We implement analysis projects at the individual Krew, team and company levels. A company-level analysis performed on overtime work revealed that deviations in overtime work in the preceding month have a great impact on the amount of overtime work in the following month. This prompted us to work with the supervising division to implement a workload allocation program for organizations in need of reform and help increase work efficiency.



## Health, Safety and Well-being of Krew

We operate a range of policies and programs to create a pleasant and healthy work environment and keep our Krew safe and healthy. We also operate benefits programs that help bolster flexibility and transparency to improve the quality of life for individual Krew members.

### Occupational Safety and Health Committee

Kakao operates the Occupational Safety and Health Committee as a consultation channel to create a healthy and safe work environment for Krew. With the participation of equal number of representatives from both labor and management pursuant to Korea's Occupational Safety and Health Act and Article 57 of our collective agreement, the Committee meets quarterly to deliberate and decide on matters related to the health and safety of our Krew. Our health and safety-related achievements made in 2021 and action plans for 2022 are reported to the Board of Directors for approval to advance health and safety management. In 2021, our COVID-19 response process was discussed as part of our efforts to successfully navigate the pandemic: we partnered with Bundang Jesaeng General Hospital to create a fast track for our Krew to receive tests in a swift and safe manner while checking employee temperatures when they come to work through thermal imaging cameras and collecting feedback from Krew in relation to vaccination leave and the introduction of an EAP<sup>1)</sup>.

### Preventing Work-related Illnesses

Every three years, we examine risk factors related to musculoskeletal illnesses that could commonly occur among Krew members due to their work characteristics. We also conduct work-related stress tests to prevent such stress-induced illnesses, and perform on-site inspections on potential accumulated stress. We engaged in consultation with the Occupational Safety and Health Committee on the results of musculoskeletal illness risk factor examinations and job stress tests performed in 2020 to develop countermeasures and support our Krew accordingly. While it is believed that none of our work performed at Kakao causes a burden on the musculoskeletal system, we continue to create work conditions that help our Krew correct their posture and maintain their health while working. Furthermore, we created Talking About, a professional counseling service for Krew, as our EAP to assist Krew in managing their stress stemming from a combination of factors concerning work and relationships.

### Talkeuibogam

We have established our in-house nursing office named Talkeuibogam to provide emergency care, wound dressing, over-the-counter medications and healthcare services for obesity or smoking cessation to help our Krew thrive in their professional life. Talkeuibogam employs a permanently-stationed professional healthcare manager who provides healthcare support nearly 700 times a month, and operates separate programs such as the Posture Correction Project and the Home Fitness Challenge to help improve Krew's health.

#### Posture Correction Project

Our Posture Correction Project is led by bodywork experts. Online workout programs are organized to assist Krew in exercising on their own while working at home amid COVID-19.

#### Home Fitness Challenge

This health promotion program encourages Krew to plan their own workout program for a given period and challenge themselves to attain the set goal to stay fit while developing healthy workout habits.

### Talk Terrace

Talk Terrace serves as a meditation and counseling venue for Krew members to manage their stress brought on by personal relationships, work or career. This is intended to help them improve both their mental and physical health. Virtual counseling was provided to Krew when they worked from home amid COVID-19.

#### <Counseling Topics Address through Talk Terrace>

|                      |   |
|----------------------|---|
| <b>Career</b>        | Concerns on relocations and career paths  |
| <b>Work</b>          | Work-related difficulties in the areas of performance, appraisal, work methods and adaptation |
| <b>Relationships</b> | Concerns raised in relation to collaboration, communication, and business relationships       |
| <b>Mental health</b> | Psychological difficulties including depression, anxiety, anger and stress                    |
| <b>Family</b>        | Issues that arise from parenting, marriage, and children and childcare                        |



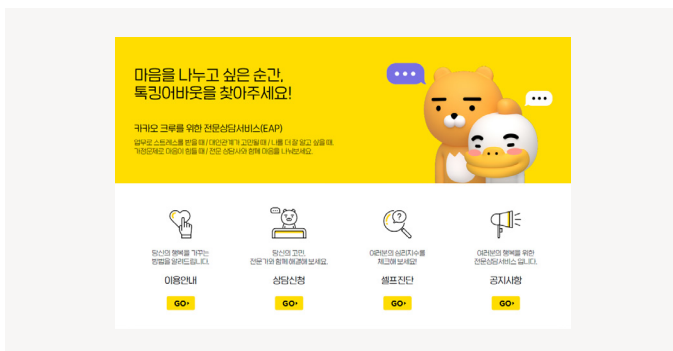
### Creating a Culture of Flexible Work

#### Introducing Flexible Hours

We apply only the absolutely essential principles to grant the greatest possible autonomy to our Krew who take their responsibility and value collaboration. In line with the 52-hour workweek system, our Krew members set and comply with their own work schedules and engage in their work as such on fully flexible work arrangements. Kakao Games also introduced a biweekly four-day workweek system to protect work-life balance for its Krew.

#### Operating Hub Offices

Kakao Enterprise operates a total of 21 hub offices in Seoul and Ilsan, including six offices and 15 FASTFIVE offices, and plans to open a cloud innovation center in Busan in 2022. We fully support our Krew in working at these hub offices to reduce their commuting distances and make their job easier.



1) An Employee Assistance Program that provides professional counseling service to help address work-life imbalance and improve work satisfaction.

### Diverse Benefits for Our Krew

We operate a wide array of benefits programs for the well-being of our Krew. They are made available for all our Krew, and partially open<sup>1)</sup> for dispatched workers, interns, assistants and other fixed-term workers. In 2021, we expanded our welfare loan program to increase the loan limit to KRW 150 million, and extend the coverage of group insurance to support dental insurance plans for Krew, their spouse, and children. We also created the Kakao Benefits (welfare credit) program which equally applies to full-time/contract/dispatched/fixed-term workers to improve overall benefits for our Krew members.

#### <Benefits Provided by Kakao>

| Category                    | Program  | Description  |
|-----------------------------|--|--|
| Kakao Krew are happy        | Kakao Refresh                                    | · Provide one-month Refresh leave and KRW 2 million in vacation bonus for every three years worked   |
|                             | Condominium                                      | · Provide access to resort facilities in partnership with the company and varying discount benefits  |
|                             | In-house club                                    | · Support the payment of monthly in-house club expenses  |
|                             | Melon subscription                               | · Support Melon's streaming plus subscription  |
|                             | Employee discount                                | · Provide discounts at Kakao Friends shops and airlines  |
| Kakao Krew are healthy      | Group accident insurance/medical expense support | · Provide fee-for-service insurance plans and disease/accident insurance plans to Krew and their spouse, parents and children<br>· Support dental insurance plans for Krew and their spouse and children |
|                             | Health check-up                                  | · Provide annual check-ups to Krew (transferrable over to their family members during years when they are not eligible for mandatory check-ups)  |
|                             | Talk Clinic                                      | · Support massage services twice a month   |
| Kakao Krew are looked after | Family Love support                              | · Provide insurance payouts in the event of death of Krew  |
|                             | Family event support                             | · Provide financial support (supplies) and vacations for weddings, 61st/70th/80th/90th birthdays, funerals and the birth of a child  |
|                             | Holiday gift                                     | · Give KRW 300,000 on Lunar New Year's and the Korean Thanksgiving holiday   |
|                             | Loan support                                     | · Offer loan support of up to KRW 150 million for stable livelihoods   |
|                             | Workplace daycare center                         | · Operate daycare centers in the Pangyo and Jeju Offices   |
|                             | Maternity care                                   | · Provide kits for expectant mothers   |
| Miscellaneous               | Commuter bus                                     | · Operate commuter buses for the Pangyo and Jeju Offices   |
|                             | Work-related reading                             | · Support work-related literacy with e-books   |
|                             | Kakao Benefits                                   | · Provide welfare points worth KRW 3.6 million per year  |

1) Including condominiums, in-house clubs, Melon subscriptions, employee discounts, support for group accident insurance/medical expenses, Talk Clinic, family event support, holiday gifts, support for expectant mothers, commuter bus support, and Kakao Benefit programs

# Partner

Kakao work closely with a wide range of partners, including but not limited to CPs (Content Producers), business partners, and IT infrastructure suppliers. We believe that when our partners grow, we grow, and that our growth will also lead to the success of our partners. Our goal is to build virtuous cycles within our partner ecosystem to help elevate the competitiveness of our partners as they work with us.

## Growing Together with Content Producers

### Supporting the Emoticon Ecosystem for Anyone to Become a Creator in Their Own Right

Since our emoticon service debuted in 2011, Kakao's emoticons evolved while defining a whole new profession of emoticon creators. There are nearly 10,000 people working as emoticon creators or engaging in the emoticon-based industry, and Kakao's emoticon creations and their resulting profits contributed approximately KRW 700 billion to the creative ecosystem.

### Archiving A Decade-long History of Kakao Emoticons

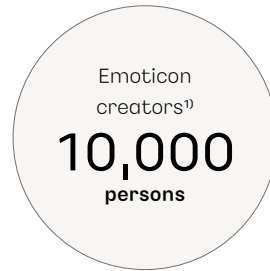
Celebrating their 10th anniversary in 2021, Kakao's emoticons grew together with their creators over the past one decade to assist them in starting their career as creators and developing their career path as CPs as well as making mobile chats even more pleasant and lively for users. In January 2021, we launched the Emoticon Plus service as an unlimited emoticon subscription plan to continue our journey to pursue healthy win-win partnerships with creators.

#### <Kakao Emoticons at a Glance>

As of Dec. 31, 2021

|   |               |
|---|---------------|
| No. of emoticon units that express a distinct emotion in 2021 | 300,000       |
| Cumulative No. of emoticons sent and received                 | 220 billion   |
| Average monthly No. of emoticons sent and received            | 2.4 billion   |
| No. of users who donated through emoticons (giveticons)       | 1.754 million |

#### <Emoticon Creators at a Glance in 2021>

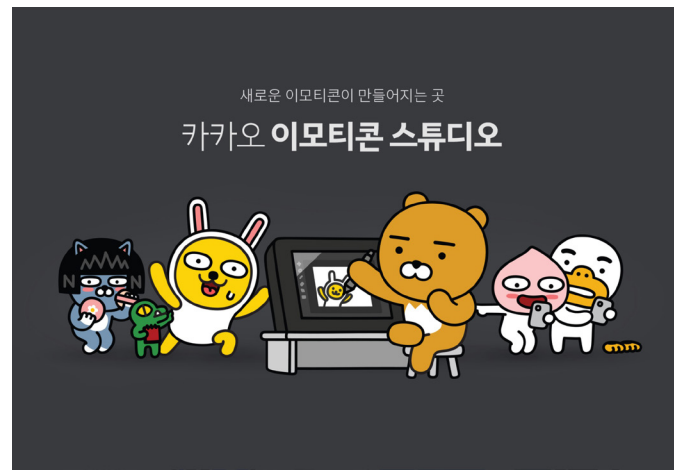


Oldest emoticon creator  
**81** years old

Youngest emoticon creator  
**12** years old

#### <Profits Generated from Emoticons in 2021>

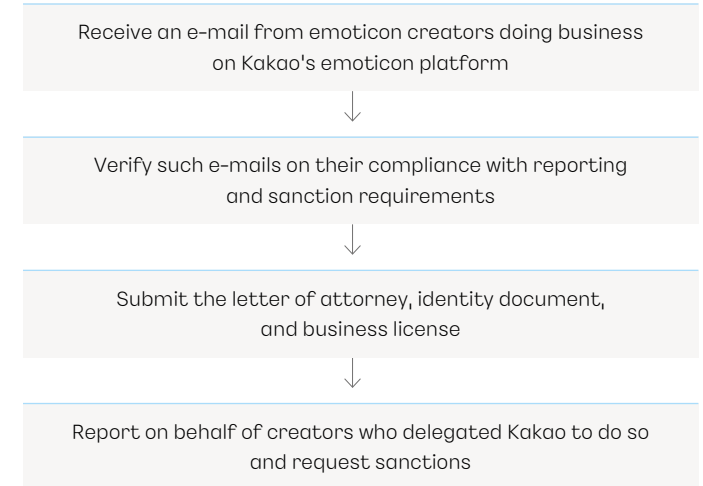
|  |       |
|--|-------|
| No. of emoticons with KRW 10 billion and over in cumulative sales  | 5     |
| No. of emoticons with KRW 5 billion and over in cumulative sales   | 43    |
| No. of emoticons with KRW 1 billion and over in cumulative sales   | 92    |
| No. of emoticons with KRW 100 million and over in cumulative sales | 1,392 |



## Bolstering Copyright Protection for Emoticon Creators

We have developed a power of attorney and reporting process to support sanctions imposed on the illegal reproduction of emoticons made available on Kakao's emoticon store and on the illegal distribution and dissemination of such emoticons on other digital platforms. In so doing, we lessen the burden of emoticon creators (copyright holders) in directly reporting to the concerned platforms and requesting the deletion of their creations while protecting the digital content rights of these emoticon creators.

#### <Process to Support Emoticon Creators in Responding to Copyright Infringement>



1) Estimated number of emoticon creators and those working in the emoticon-based industry combined



Case Ethics Guidelines for Emotion Creators

The Mandatory Guidelines on Ethics, Business and Copyrights for Emoticon

Kakao fully supports emoticon creators and their creative works, hence continuously presents a minimum set of ethical standards to ensure that emoticons, in their content and expression, do not offend users or bring harm to the society. We held discussions with the self-initiated hate speech regulation research group in 2021 and added standards on the boundary of discriminatory and hateful remarks to our integrity and ethics guidelines in January 2022 to eliminate provisions that may cause confusion among creators while further clarifying our ethical standards. The Mandatory Guidelines on Ethics, Business and Copyrights for Emoticon established as such were posted on Kakao Emoticon Studio for all creators to refer to. If creators violate these guidelines or are likely to infringe upon the rights of others, they are banned and suspended of sales on the Studio platform.

Establishing Criteria and Principles to Define Hateful and Discriminatory Content

Our emoticon policy that governs hateful or discriminatory expressions limits its scope of application to the content itself. Emoticons often contain trendy neologisms that may imply bias against certain groups depending on the context. But given that emoticons are used by different users in varying contexts, we found it realistically challenging and potentially overly restrictive on the freedom of expression to identify certain emoticons as unethical for the sole reason that they could convey discriminatory or hateful intentions when used in specific contexts. After due consideration, the research group specified in our ethical standards that any decisions made on discriminatory or hateful expressions are to be made based on the complete meaning that the concerned content comes to manifest, thereby establishing a balanced guideline that guards against discriminatory remarks while ensuring the creativity of emoticons.

Link to Kakao's the Mandatory Guidelines on Ethics, Business and Copyrights for Emoticon

<Integrity and Ethics Guidelines for Emoticons Concerning Hateful/Discriminatory Expressions>

- Scope of discriminatory/hateful expressions
- Expressions that despise or ridicule specific individuals or groups
- Expressions that judge or insult appearances
- Expressions that despise or ridicule individual characteristics such as intellectual ability, social skills and financial status
- Expressions that joke about specific diseases or disabilities and their resulting negative outcomes (death, etc.)
- Exceptions are granted to self-mocking expressions that may not do harm to others, exaggerations of specific situations, or any other expressions that do not attack specific individuals or groups nor violate human rights

- 1) Exceptions are granted when joking about specific 'people whose words and actions could be offensive', while not targeting groups that share any specific identity.
2) Scope of specific individuals or groups: Groups and their members who share commonalities in terms of country/region of origin, race, appearance, disability and diseases, socioeconomic conditions and status, religion, age, gender, sexual identity/orientation, and other identity factors, and/or groups and their members who share similarities in terms of specific beliefs, interests, or hobbies

Principles of Defining Discriminatory/Hateful Content
It is virtually impossible to consider all the varying contexts where emoticons are used in defining discriminatory or hateful content, even more newly coined words are oftentimes not distinguishable from everyday language. As such, we focus on the emoticon content itself to determine whether it contains any discriminatory, hateful or hatred expressions independent of the contexts that apply to some users.



Discovering Brunch Authors

Brunch has launched the annual 'Brunch Book Publishing Project' since 2015 to support authors wishing to publish their own books. Since 2021, we have teamed up with multiple partners to expand Brunch books in their derivative work format.

Collaboration to Expand Brunch Books into Derivative Work

- Millie as an e-book platform: Publish Brunch books as Millie's original e-books
- Welaaa as an audiobook platform: Publish Brunch books as Welaaa's original audiobooks
- Class 101 as an online learning platform: Adapt Brunch books for VOD classes through the use of virtual creators
- Taling as an integrated on/offline learning platform: Produce VOD classes that convey the narrative through audio-visual materials
- Wadiz as a crowd funding platform: Launch crowd funding projects by using awarded content

<Impact Generated by Brunch Authors in 2021> As of Dec. 31, 2021

Table with 3 columns: No. of Brunch authors (50,000), No. of authors who published books (2,900), No. of books published (4,600). Includes 'Nearly' labels and 'persons'/'books' units.

<Outcomes of the Brunch Book Publishing Project in 2021> As of Dec. 31, 2021

Table with 3 columns: No. of applications (32,704), No. of awardees (279), Financial support provided (485 million KRW).

<Bestseller from Brunch>

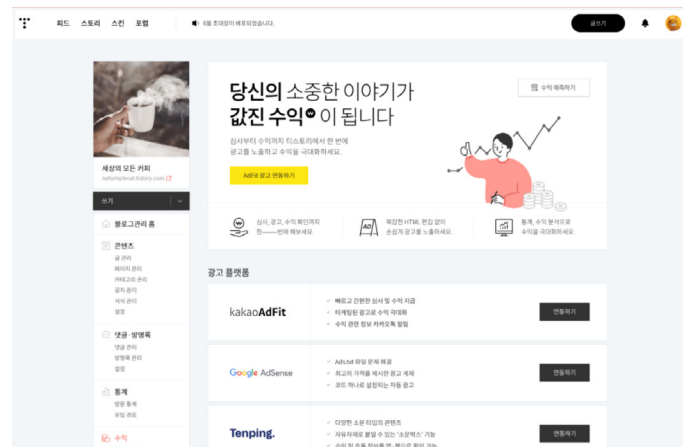




### Support for Tistory Bloggers with Profit Generation

We opened the Profit Center in 2020 to assist Tistory bloggers in raising income by including ads in their Tistory posts and sharing the profits. Since the Center's opening, both Tistory sales and bloggers' profits have been growing, and bloggers can easily identify the degree of ad exposure and the ratio of profits they gain through the Center. In 2021, Dable and Tenping were added to our existing advertising platforms of Kakao AdFit and Google AdSense to help bloggers select platforms most suitable for their blogs and increase profits.

#### <Tistory Profit Center's Ad Platform Management Webpage>



### Kakao Entertainment & Ground X | Protecting the Rights of Our Creators

#### Protecting Creators through Anti-piracy Efforts

Kakao Entertainment has created a task force dedicated to combatting the distribution of pirated content across the world. Currently, the operations are focused on illegal content provided in English, Chinese and Indonesian, with the aim of expanding and strengthening the reach of these efforts. The company is looking to bring onboard talent specializing in Thai and Spanish and is working closely with government agencies such as the Ministry of Culture, Sports and Tourism to ensure Korean content is safeguarded in the global market.

### Platforms to Support Up-and-coming Creators

Kakao Entertainment launched KakaoPage Stage as an open platform to discover and nurture future web novelists. Stage provides a space for creators and content producers to engage with each other, offering creators an opportunity to debut, and producers a chance to uncover great stories. While serving as a free publishing platform, Stage pays authors for their work on a monthly basis to provide a financially-secure creative environment, and operates a wealth of support programs to provide the best opportunities possible for creators. Since its launch in September 2021, Stage has grown rapidly, with over 20,000 works released on the platform in just two months. Stage has helped 95 web novel authors debut on KakaoPage.

#### <Stage's Emerging Author Support Program >

##### Page GO

- Identify web novel series to be officially published on the KakaoPage platform
- Provide chosen authors with an opportunity to immediately debut on KakaoPage while publishing on Stage, along with a stipend of KRW 2 million

##### Stage ON

- Pay authors for their web novel series published on Stage
- Pay chosen authors for their serial work while publishing on Stage so that they can focus on their creative work before they debut

### Expanding the Global Reach of Webtoon and Web Novels

Kakao Entertainment actively looks to help grow the value of original IPs produced by its creators and partners through opportunities such as TV/film adaptations. In 2021, it sold publishing rights for some 50 TV dramas, films, and animations, with 20 percent of the deals going to overseas producers. It has also continued to launch original K-content in major global markets such as North America, Japan, Indonesia, Thailand, Taiwan, and India, to help build a strong vision of growth for Korea's creators and the content industry.

#### <Global Expansion of Webtoon Platforms>

- Tapas: North America's first webtoon platform
- Radish: A web novel platform in North America built upon its own internal creators
- Wuxiaworld: World's largest platform of English-language Asian fantasy web novels
- Kakao Webtoon Thailand/Taiwan/Indonesia: A global platform centered around Kakao Entertainment's original IP

### Laying the Basis for Creators' Creative Activities

Ground X launched KrafteSpace as a service to create and manage NFTs (Non-Fungible Tokens) easy and simple. NFTs refer to blockchain-based tokens that are non-interchangeable and non-reproducible and thus are verifiably unique and scarce, emerging as a new class of digital assets capable of converting creations into non-reproducible content. We assist virtually anyone, let alone famous artists, in issuing their own NFTs and becoming an owner of their digital content, supporting the creative activities of users in so doing. As of December 31, 2021, we assisted over 60,000 issuances of NFTs. In addition, we unveiled Klip Drops as a digital art and NFT marketplace to take the lead in creating a wholesome environment to appreciate and own digital art. Not only do we help creators capitalize with digital art and NFT sales but also create an ecosystem where creators can continue to work and develop their career further by paying a portion of the profits created through resales as creators' royalties.

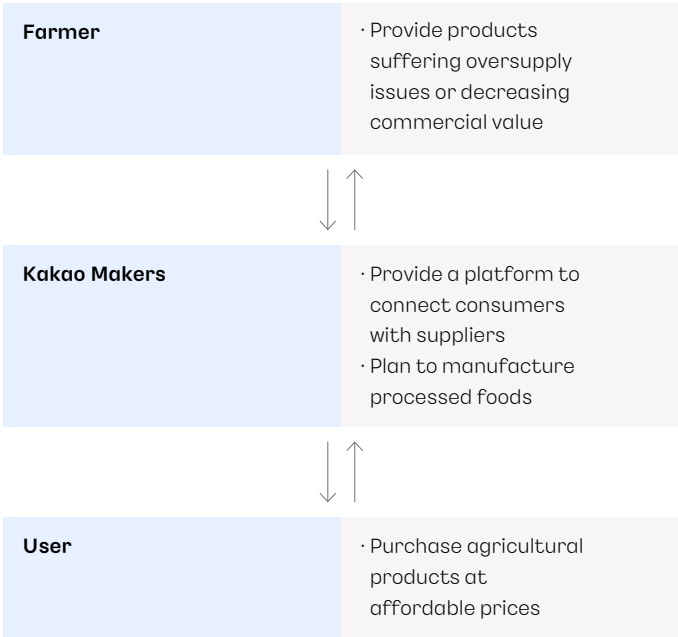


**Growing Together with Wide-ranging Partners**

**Kakao · Kakao Pay | Supporting the Business Operation of Small Businesses**

'Worth Every Penny', a Win-win Partnership Brand for Agricultural and Fisheries Products

Our 'Worth Every Penny' brand was designed to convert agricultural and fisheries products in excessive supply into food products that consumers are willing to pay full price for. Our role is to purchase these products suffering oversupply or decreasing commercial value at affordable prices to support farmers experiencing hardships and to turn them into processed foods to create added value. One prime example is our partnership with ginseng farmers in Geumsan: we procured large quantities of overstocked ginseng, processed them into red ginseng products, and posted KRW 380 million in transaction value by selling a total of 8,400 units as of April 2022.



1) National brand certification granted to qualifying product manufactured by Korean SMEs

Supporting Online Sales Opportunities and Providing Consulting  
 Kakao helps partners explore new online sales opportunities and provides training necessary for their business operations to pursue mutual growth with partners.

|  |   |
|--|---|
| <b>Support SMEs with product sales opportunities</b> | <ul style="list-style-type: none"> <li>· Helped generate nearly KRW 130 million in sales by supporting Brand K<sup>1)</sup> flagship stores and offline pop-up promotion booths and hosting Brand K exhibitions</li> </ul>  |
| <b>Support SMEs with training</b>                    | <ul style="list-style-type: none"> <li>· Provided 12 online live training sessions to SMEs doing business on the KakaoTalk store platform with a total of 1,719 participants</li> <li>· Provided replays and basic manual videos on Kakao TV and Youtube on a year-round basis</li> </ul>                       |
| <b>Host virtual fairs</b>                            | <ul style="list-style-type: none"> <li>· Transformed offline shopping events that were almost reduced or cancelled amid COVID-19 into online virtual events</li> <li>· Hosted 11 such events by 2021, and over 100 partners joined Talk Store through virtual fairs</li> </ul>                                  |
| <b>Support the sale of local specialties</b>         | <ul style="list-style-type: none"> <li>· Supported online sales and marketing events for local specialty agricultural/fisheries products experiencing difficulties with sales amid COVID-19</li> <li>· Reached nearly KRW 13 billion in annual sales with 16 local governments participating in 2021</li> </ul> |

Support for the Efficient Operation of Small Businesses and Franchises

Kakao Pay aims to realize the corporate philosophy of 'finance that serves the interest of all' by supporting the growth and operation of small businesses. In 2021, Kakao Pay's business app was upgraded and all of its functions became free-of-charge. The app provides various functions necessary for overall store management. Users operating multiple franchises can add all their stores into the app for integrated management, and users hiring new employees can also add them to the app for payroll management and ensure systemic store management.



**Kakao Mobility | Paving the Way to Improve the Treatment of Partners**

Win-win Partnership for the Better Treatment of Drivers

In September 2021, Kakao Mobility announced its plan to bolster its social responsibility. Kakao Mobility reduced its pro membership fees for taxi drivers, completely terminated the smart call charge system, and withdrew the flower/snack/salad delivery brokerage service for corporate customers which raised concerns over potential harm to small local businesses. A flexible fee program was introduced to provide chauffeur fee discounts and the contract to acquire some chauffeur companies was cancelled to create a mutually beneficial ecosystem. In January 2022, a discussion meeting was held with the Kakao T Blue franchise council to carefully heed the requirements of partners. Kakao Mobility plans to realign its cancellation fee allocation policy so that a portion of such fees go to Kakao T Blue drivers. Other plans to pursue win-win partnerships include the reduction of up-front franchise costs of taxi operators and the expansion of 'safe insurance' to pay for compensation and surgery in the event of violence and injury that may occur while taxi operation.

**<Kakao Mobility's Efforts to Pursue Win-win Partnership>**

|  |   |
|--|---|
| <b>Adjust service offerings</b>            | <ul style="list-style-type: none"> <li>· Terminated the smart call program</li> <li>· Reduced pro membership fees</li> </ul>  |
| <b>Host meetings and launch committees</b> | <ul style="list-style-type: none"> <li>· Held meetings with the Kakao T Blue franchise council</li> <li>· Launched the win-win partnership advisory committee</li> <li>· Launched the mobility transparency committee</li> </ul>  |
| <b>Consult with partners</b>               | <ul style="list-style-type: none"> <li>· Discussed the creation of a win-win partnership council with non-franchise taxis</li> <li>· Created a council of franchise taxis</li> <li>· Engaged in collective negotiations with the labor union of chauffeurs</li> <li>· Engaged in adjustment consultations with the win-win growth committee of chauffeur companies</li> </ul> |
| <b>Establish a business model</b>          | <ul style="list-style-type: none"> <li>· Developed a model to increase profits for franchise taxis to pursue long-term shared growth</li> </ul>   |

Organizing a Win-win Partnership Council with Small/ mid-sized Rental Car Companies

In December 2021, Kakao Mobility signed an MOU on rental car platform intermediary service with the Korea Rent-a-Car Association (KRCA) to promote mobility business cooperation. Under this MOU, two parties agreed to standardize platform intermediary service prices and quality, identify new win-win partnership models to sharpen competitiveness in the platform market, and organize a win-win partnership council to boost the business. Kakao Mobility plans to operate this committee with the KRCA in relation to overall business operations spanning platform charges and fee increases to conduct business while collecting suggestions from SMEs.

Improving the Work Environment for Drivers with Hearing Impairments

In July 2021, Kakao Mobility signed an MOU with CO:ACTUS for mutual cooperation in taxi platform business and has since explored ways to increase income and jobs for drivers with hearing impairments through the Kakao T platform. Such efforts began with adding a special functionality for hearing-impaired people to the Kakao T app so that both drivers with hearing impairments and passengers can conveniently use the platform. Since September 2021, Kakao T Taxi sends a separate pop-up message to users when they are assigned a hearing-impaired driver. Going forward, Kakao Mobility will team up with CO:ACTUS to optimize the tablet app for passengers and streamline the payment process through in-app metering.

**Kakao Enterprise · Kakao Ventures | Providing Startups with Growth Opportunity**

Boost-Up Program for Win-win Partnership with Startups

Kakao Enterprise is implementing the Win-Win Partnership Boost-Up program in conjunction with KDB to nurture startups. A total of 18 chosen startups were provided with 50 million Kakao i Cloud credits and Kakao Work free-of-charge to support their digital innovation and work infrastructure improvement. In addition, cloud consulting and one-on-one technology mentoring were conducted to boost the growth of partners. In so doing, we pursue the innovation of startups and revitalize the ecosystem while delivering the value of shared growth.

**KDB - Kakaoenterprise**

### Boost-Up Program for Win-win Partnership

It supports **early-stage stabilization, acceleration of growth, and digital transformation of startups.**

- Commercialization-based support**  
Cloud Infrastructure, Free Kakao Work for up to 12 months
- Support for business expansion**  
Provides a variety of business collaboration and co-marketing opportunities based on business suitability
- Sharing the know-hows of operations**  
1:1 Mentor Program, Sharing Kakao's organizational culture and working style

Startup Investment and Follow-up Support

Kakao Ventures pursues the growth of partners as an inherent pillar of its business model. Kakao Ventures is looking for entrepreneurs who bring innovation to the world through technology, and has invested in more than 200 families with KRW 359.9 billion in AUM as of December 2021. Kakao Ventures operates a range of programs to support the overall operation of startups in the areas of publicity, consulting and networking where startups lack their independent capabilities to boost the value of its families while working to create an environment where entrepreneurs focus on their technology and service development.

|                                 |   |
|---------------------------------|---|
| <p><b>Publicity support</b></p> | <ul style="list-style-type: none"> <li>· Support families to widely publicize their business and message through media connection and independent content production</li> <li>· Bring experts in their fields including growth hacking, organizational culture, and product &amp; service development as value-up partners to enable families to receive necessary advice when the need arises</li> </ul> |
| <p><b>Family Day</b></p>        | <ul style="list-style-type: none"> <li>· Host Family Day networking events at least once a month to build solidarity among family businesses, and held such events in metaverse format in 2021</li> </ul>   |

### Shared Growth with Suppliers

The Supplier Code of Conduct of Kakao sets out standards that all Kakao suppliers must abide by. Based on its content, we are selecting and managing suppliers and realigning our system to incentivize top-performing suppliers. We also strengthen our communication channels to provide real-time solutions to supplier grievances.

#### Definition of Suppliers

Suppliers refer to businesses that provide goods or items highly associated with Kakao's business or engage in the transaction of outsourcing services. This includes businesses who will or are currently in a business relationship with Kakao, and extends to general subcontractors in addition to subcontractors as stipulated in the subcontract law.

#### Kakao's Supplier Code of Conduct

In April 2021, we established the Supplier Code of Conduct for all suppliers to follow. The code dictates that all our suppliers should fulfill their responsibility in the five areas of Human Rights Management, Safety & Health, Environmental Management, Personal Data and IPR Protection, and Ethical Management, as well as submit their consent to comply with the Code. In particular, we will ensure stringent compliance with anti-corruption laws and regulations in relation to ethical management, and specify that we will engage in continuous monitoring to promote the ethical operation of our suppliers.

[🔗 Link to Kakao's Supplier Code of Conduct](#)

#### <Ethical Management Guidelines of the Supplier Code of Conduct>

Kakao and its suppliers abide by laws and ethics and conduct business in a transparent and fair manner. Kakao does not request or receive money and valuables as well as entertainment from suppliers nor engage in unfair practices and any other act that may undermine cooperative relationships. Kakao demands that its suppliers also maintain the highest level of integrity in their business relationships and commit to zero-tolerance policy against all types of unfair practices. It is not acceptable that business opportunities are provided or specific conditions are proposed for illicit gains while thorough compliance with anti-corruption regulations and continuous monitoring are required. All transactions should be made in a transparent manner, and be accurately accounted for in accounting and work records.

### Supplier Selection and Management

In the first half of 2021, we realigned our assessment criteria used to select new suppliers. In addition to existing assessment factors such as technology and pricing, factors from our Supplier Code of Conduct in the areas of Human Rights Management, Safety & Health, Environmental Management, Personal Data and IPR Protection, and Ethical Management were added. We also introduced a pre-checklist to review and select suppliers based on media articles and internal/external whistleblowing reports. For suppliers who register for the first time from 2023 onwards, we will establish a separate system to screen them against our ESG self-checklist and allow only qualified suppliers to register.

#### Supporting Top-performing Suppliers and Celebrating Partner's Day

Each year, we choose 50 top-performing suppliers<sup>1)</sup> and invite them to Partner's Day since 2009 to present a plaque of appreciation and gifts. Partner's Day serves to brief partners of our wide-ranging shared growth policies and vision, and the event went online in 2021 amid COVID-19. Incentives offered to outstanding partners include the waiver of performance bonds and warranty bonds and the bonus points granted during the supplier selection process. We also promote these suppliers through our major publicity channels. For outstanding small/mid-size suppliers, we offer them KRW 2 million coupons redeemable at Kakao Moment, our KakaoTalk message and brand search barter advertising platform, when they register their ad account through KakaoTalk channels.

#### Supplier Communication Channel

We receive complaints raised by suppliers through our official blog linked with our official shared growth webpage and the Online Ethics Center. We also hold annual purchasing presentations and Partner's Day events as direct communication channels, and internally operate the Dispute Settlement Committee to gather supplier feedback. 'Since 2021, we have been operating an official communication channel within K-pick, our electronic procurement system, to actively collect supplier feedback.

### Supplier Support Programs

We operate a range of support programs to assist suppliers in conducting business and improving their employee benefits. We provided our suppliers with a host of items to help them navigate the pandemic and supported some of them to create a remote work environment.

|                                  |  |
|----------------------------------|--|
| <b>Financial support</b>         | <ul style="list-style-type: none"> <li>· Made full cash payments to suppliers to support their stable business operations and liquidity supply</li> <li>· Made payments ahead of the set due date during national holidays and participated in government-sponsored projects with large/mid/small-sized partners</li> <li>· Provided loan support at below-market-rate interest rates to suppliers who signed the shared growth win-win partnership agreement</li> </ul> |
| <b>Training support</b>          | <ul style="list-style-type: none"> <li>· Operated kakao.edu as our free-of-charge online training program for suppliers which offers 110 courses on key content of respective jog categories</li> <li>· Operated Kakao Class with Partners whereby Krew members who are experts in their field share Kakao's experience and knowledge</li> </ul>   |
| <b>COVID-19 support</b>          | <ul style="list-style-type: none"> <li>· Supported infrastructure and the VPN (Virtual Private Network) to create a remote work environment</li> <li>· Provided contactless thermometers, Kakao T coupons and face coverings to subcontractors</li> </ul>  |
| <b>Learning platform support</b> | <ul style="list-style-type: none"> <li>· Provided suppliers with an account to take nearly 100 courses on online training platforms each month</li> </ul>  |

|   |   |
|---|---|
| <b>No. of suppliers subject to the Win-Win Index<sup>2)</sup></b> | <b>Win-Win Index<sup>3)</sup></b><br>(1 step increase from the previous year) |
| <b>66</b> companies   | <b>Excellent</b> in 2020  |

1) Suppliers who meet specific conditions, including accounts with annual purchase amounts above the set threshold, long-term suppliers, and suppliers who have no reason for disqualification (lack of integrity or substandard maintenance)  
 2) Companies who are subject to Win-Win Index assessments and share our vision to go beyond business partnership to companionship to pursue sustained growth  
 3) The 2020 Win-Win Index was published in September 2021



## Compliance with the Principles of Fair trade

Kakao provides all business partners with fair trade opportunities and comply with the principles of fair trade in conducting business. Fairness and transparency embedded in our business operations help build trust-based relationships with suppliers.

### Principles of Fair Trade

We abide by the four action agendas for compliance with subcontract regulations stipulated by the Fair Trade Commission to promote fair trade and shared growth with our partners. The entire transaction process is led by K-pick, our electronic procurement system, to ensure transparency and fairness in any and all transactions we enter into. We also hold annual purchasing presentations to encourage our suppliers to engage in fair trade.

#### <4 Action Agendas for Shared Growth with Partners>

##### Enter into desirable contracts to promote win-win partnerships among large/mid/small-sized businesses

- Kakao complies with reasonable and fair contracting guidelines to ensure that SMEs duly pursue their interests in their contract.

##### Select (register) suppliers in a fair manner

- Kakao follows transparent and fair procedures in selecting and operating suppliers in accordance with the set guidelines.

##### Establish and operate the internal subcontract deliberation committee

- Kakao's internal deliberation committee fairly reviews the overall process of subcontracting including partner selection, contract signing and pricing.

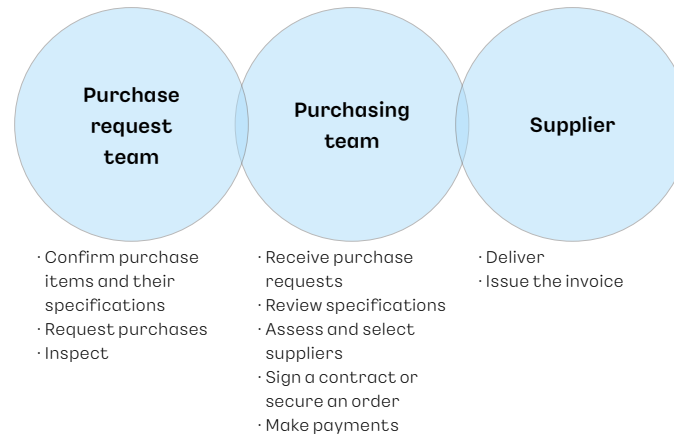
##### Issue and retain written documents in subcontract transactions

- Kakao establishes fair transaction practices by disseminating a culture of conducting transactions in writing and implementing a policy to this effect to establish fair transaction practices, and issue and retain written documents in principle in signing contracts and engaging in transactions.

[Link to Kakao's shared growth portal](#)

## Purchasing Process

To ensure the maximum-possible transparency and fairness in the supplier selection process, we use K-pick, an electronic procurement system. We also continue to upgrade our automation system to prevent any errors from ever occurring in our purchasing process.



## Procurement Deliberation and Dispute Settlement

Our Procurement Deliberation Committee meets at least once a month to deliberate on the occurrence of unfair transactions or violation of the Subcontract Act in doing business with suppliers. Such deliberations are performed through a checklist used before and after the signing of a contract. The Dispute Settlement Committee also convenes at least once a month to proceed with settlement procedures for suppliers involved in the issues raised. Since the Dispute Settlement Committee was established in 2018, not a single case of dispute settlement has been recorded.

## Ethical Practice Agreement

Kakao signs the ethical practice agreement with its suppliers to respect them as a partner for business operations and pursue shared growth through transparent and fair transactions and mutual cooperation. This agreement is signed with suppliers in the initial contract phase, and both parties — Kakao and its partners — pledge to abide by laws and ethics and to conduct business fairly and transparently.

- Kakao and its partners abide by laws and ethics and engage in transparent and fair transactions.
- Kakao does not request or take money and valuable as well as entertainment from its partners, and does not engage in unfair practices and any other act that may undermine cooperative relationships.
- When partners report or blow the whistle on the violation of this agreement as a result of being compelled to do so by Kakao employees, Kakao will not take any discriminatory or disadvantageous actions in accordance with its whistleblower protection and anti-retaliation guidelines, and give the maximum-possible consideration to maintain reliable business relationships.
- Kakao will take disciplinary actions against its concerned employees when the reports or whistleblower reports submitted by partners turn out to be true.
- Kakao ensures that when its employees take gifts from partners, they inform the company of such occurrences to establish a culture of transparent and fair business conduct.

# User

Kakao always does its utmost to strike the right balance between data connectivity and data privacy. Throughout this all, we value users above all else, and safeguard their privacy as fundamental human rights. We will spare no effort in this regard, from directly engaging in the service planning and operational phase including preventive checks and data privacy impact assessments to collaborating with external partners by heeding the advice of experts from diverse fields.

## Data Privacy and Data Security

We strive to strike the right balance between data connectivity and data privacy. In creating a better world through connectivity, we put users' rights and privacy protection first and foremost.

[Link to our privacy philosophy](#)

[Link to our data privacy policy](#)

### User Privacy Protection System

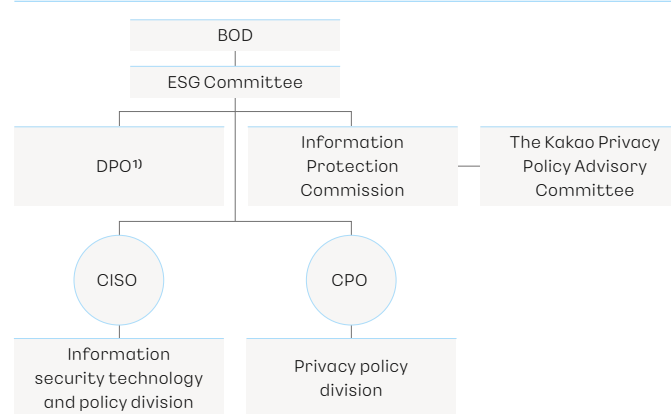
To comply with domestic and foreign data privacy laws and to protect user privacy, we perform personal data impact assessments in line with the privacy by design principle throughout the entire service lifecycle in order to eliminate risk factors in advance. On top of preventive reviews such as vulnerability checks, security coding and code reviews, we take technical and managerial protection measures such as technical vulnerability reviews and 24/7 security monitoring. We fully embrace privacy by design as the overarching principle for our data privacy and security operations, and follow this principle in continuously protecting user data and corporate data assets.

### Data Privacy Governance

To deal with data privacy issues in the most professional and systemic manner possible, we separated the CISO (Chief Information Security Officer), who oversees information security operations, from the CPO (Chief Privacy Officer), who manages data privacy operations. The Information Protection Commission, chaired by the CISO, is composed of the CPO and the heads of relevant teams at the executive level to deliberate and decide on relevant issues. For matters related to company-wide data privacy risks, the ESG Committee under the Board of Directors is briefed and manages such issues accordingly. In addition, we have been operating the Kakao Privacy Policy Advisory Committee since 2014. Composed of Korea's top-

notch privacy policy experts, the Committee offers advice in consideration of user perspectives and social expectations through year-round communications. The Committee holds regular advisory meetings to identify privacy issues and relevant regulatory trends in Korea and abroad, advise on Kakao's privacy policy directions, and conduct policy research through data privacy research activities and seminars.

#### <Data Privacy Governance>



1) Data Protection Officer


#### <Activities Undertaken by the Information Protection Commission and the Privacy Policy Advisory Committee>

|  |   |
|--|---|
| <b>Information Protection Commission</b> | <ul style="list-style-type: none"> <li>Reviewed and approved the results of cloud service security assessments made in line with the use of cloud by intermediaries engaged as a MyData provider</li> <li>Approved the analysis and assessment of the vulnerabilities of the website in accordance with electronic finance supervisory regulations</li> <li>Developed, deliberated and decided on information technology plans</li> </ul> |
| <b>Privacy Policy Advisory Committee</b> | <ul style="list-style-type: none"> <li>Reviewed the addition of 'data privacy provisions' to Kakao's Algorithm Ethics and integrated feedback</li> <li>Discussed approaches to upgrading our privacy policy, developed action plans, and initiated consultations including the preparation of the voluntary internal checklist</li> </ul>   |

## Information Security Certification

Our information security system is certified by domestic and international certification bodies. We achieved the international standard information security certification ISO/IEC 27001 on our infrastructure operations as the industry's first in 2006, and then were certified against the privacy information certification ISO/IEC 27701 and the cloud service information security and data privacy certification ISO/IEC 27017. Our company-wide services have remained certified under the domestic information security certification ISMS-P.

#### <Information Security Certification>

|   |  |
|---|--|
|  | <ul style="list-style-type: none"> <li>[Certification Scope] Internet service operation (Kakao, Daum)</li> <li>[Validity Period] Dec. 26, 2019 ~ Dec. 25, 2022</li> </ul>                                |
|  | <ul style="list-style-type: none"> <li>[Certification Scope] Company-wide services including e-mail, KakaoTalk, advertising and search</li> <li>[Validity Period] Jul. 7, 2021 ~ Jul. 6, 2024</li> </ul> |

[Link to the information security certifications achieved by Kakao](#)

## Developing Our Information Security Policy and Guidelines

We develop information security policies and guidelines to protect users and maintain internal information security. These guidelines present necessary principles and standards as well as behavioral rules considering the job characteristics of different roles and positions so that data-handling Krew members can securely perform their work.

#### <Kakao's Information Security Policy and Guidelines>

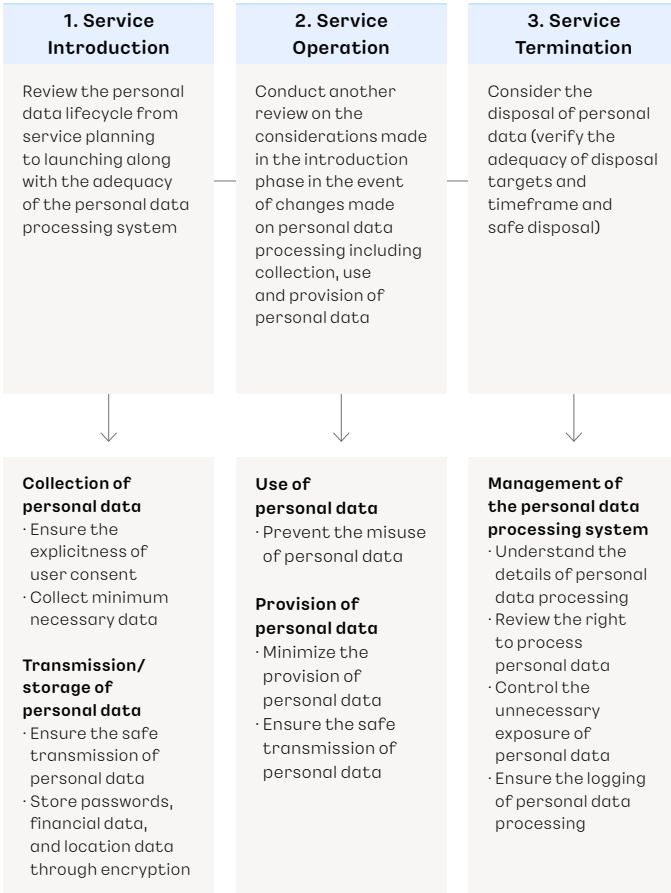
- Information security policy
- Information security guidelines for Kakao Krew
- Information security guidelines for infrastructure operators
- Information security guidelines for service operators
- Information security guidelines for service developers
- Information security guidelines for information security personnel



**Personal Data Protection System**

Kakao operates various personal data protection programs to manage relevant issues. Personal data impact assessments are performed on all Kakao services in line with the privacy by design principle. Through this, we eliminate risks in advance by evaluating our compliance with data protection laws as well as potential impact generated on user data along the entire service lifecycle. Our personal data protection review and management system is also in operation to assess whether privacy protection activities are being properly carried out. We also operate a personal information handler management system to ensure the integrative management of our personal data processing status.

**<Personal Data Impact Assessment by Phase and Review Items>**



**Managing and Reviewing Outsourcing Companies on Personal Data Protection**

We sign the personal data protection agreement with third parties to whom we contract out our personal data processing operations. We regularly conduct reviews on these companies to ensure their compliance with the contract, as well as manage and oversee them in order to ensure that user data is processed securely across our operations. Hence, we have developed an outsourcing company checklist in line with the Personal Information Protection Act and other relevant laws to verify their personal data protection policy and ensure that improvements are made should violations occur.

**Guarantee of Users' Right to Informational Self-determination**

Kakao considers it a priority to protect users' right to informational self-determination. To this end, we enable users to check their own data through a single convenient touchpoint by providing a data management function at the Privacy Center located within our privacy policy website. Users can access the personal data processing policy at any given time and learn about their rights as a user and how to exercise such rights. For an easier understanding of our personal data handling process and policy, we provide our users with personal data handling process infographics as well as an easy-to-understand privacy policy for children.

**<Privacy Self-management Made Available by Kakao>**

|   |   |
|---|---|
| <b>Status of personal data use</b>            | <ul style="list-style-type: none"> <li>· Details on the collection and use of one's personal data (mandatory or optional collection items)</li> <li>· Details on personal data provided to third parties depending on the user consent given (third parties, provision items, purpose of provision)</li> <li>· Status of the outsourcing of personal data processing (outsourcing companies, details of outsourcing)</li> </ul> |
| <b>Status of service connectivity</b>         | <ul style="list-style-type: none"> <li>· Details on services currently used through the connection established by way of one's Kakao account (including the date of account connections made)</li> <li>· Details on connections among Kakao-affiliated services and even with external services</li> </ul>  |
| <b>Consent settings for personal data use</b> | <ul style="list-style-type: none"> <li>· Status of consent for the collection and use of personal data</li> <li>· Options to withdraw one's consent that has been given on additional collection of profile data, collection of delivery address information, and use of one's data for event and marketing purposes</li> </ul>   |

[Link to Kakao's Privacy Center](#)

**Operating the Privacy Policy Website**

We operate the privacy policy website to provide information on our privacy policy philosophy, the composition and roles of our internal information security organization, and personal data impact assessments made for the safe management of users' personal data. The website also illustrates our preventive activities and data access control principles to maintain our security performance, monitoring conducted through the 24/7 security operation center, and responses made in the event of user data breaches. The Privacy Center page of the website provides information for users to directly check and manage the status of their data use, and the Privacy Policy Brunch serves as a channel to share with stakeholders news on our privacy policy, domestic and international privacy trends and other diverse information.

**Disclosing Our Transparency Reports**

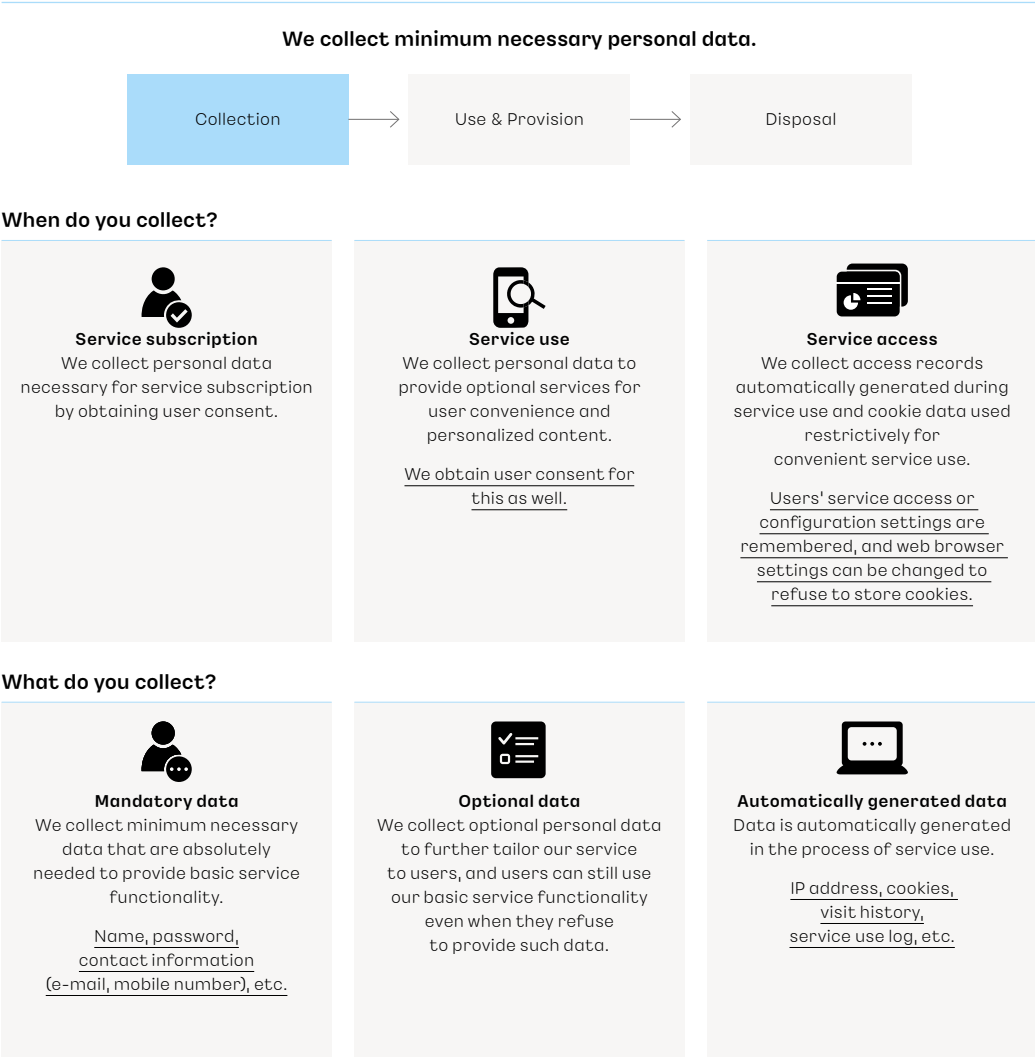
In the event of a governmental or judicial agency request, Kakao follows legally appropriate procedures in conformity with warrant requirements and discloses related details through its transparency report. In so doing, we boldly uphold the rights of our users and proudly commit ourselves to thoroughly protecting user data in accordance with due processes. When overseas governmental agencies or private sector organizations request user data, this is not directly handled by Kakao and thus we call for cooperation with the Korean government or judicial agencies when deemed necessary. We do not respond to any request for user data made by domestic organizations or individuals without following the set official procedures. Going forward, we will transparently share information with stakeholders on how user data is provided and privacy protections are extended.

[Link to Kakao's transparency reports](#)

**Personal Data Processing Procedure**

We collect, use and provide personal data in accordance with the user consent given, and our personal data processing procedures consist of collection, use & provision, and disposal. We collect only minimum necessary personal data for service subscription, use and access, and use such data for intended purposes only. Specifically, user data is immediately disposed of when their purpose is fulfilled, and user data in electronic file format is safely deleted through technical methods that prohibit their recovery or reproduction. Kakao provides personal data processing infographic to help users easily understand its personal data processing procedure and policy.

**<Personal Data Processing Infographic>**

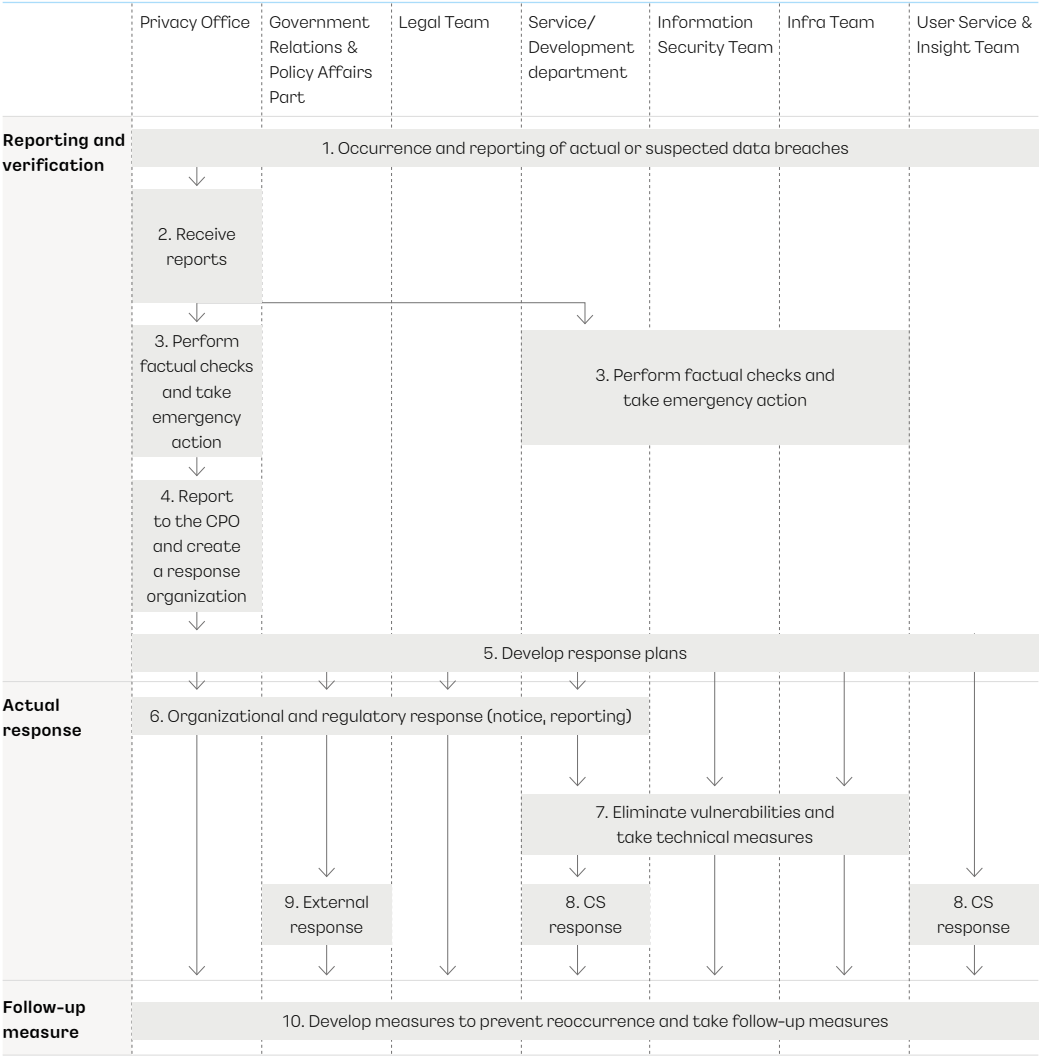


[Link to Kakao's personal data processing procedure infographic](#)

**Response to User Data Breaches and Information Guidance**

As user data breaches may still occur in spite of our best efforts to implement thorough pre/post control activities, we are developing manuals to respond to personal data breaches, and are establishing our personal data breach response procedure to inform users of such incidents in accordance with applicable regulations and report to competent authorities. This procedure includes notifying users of the incidents that occurred and our reporting to authorities, the actions we took to respond to such incidents, contact information for counseling, and remedies available to minimize user damages so that we effectively address any unexpected events.

**<Data Breach Response Procedure>**



[Link to our user data breach response guidelines](#)

### Development of An Easy-to-Understand Privacy Policy from the Viewpoint of Children

We are exploring ways to help children understand our personal data processing procedure. Personal data policies and legal notices often consist of technical terms that are difficult for children to understand. We believed the best solution to this problem is to seek direct feedback from children. Thus, we organized the 'Child Advisory Group' in 2021 to develop an easy-to-understand privacy policy that meets the children's level of understanding and disclosed the development process.

The Child Advisory Group consisted of eight students in grades 4 to 6 chosen among Krew's children. In line with the purpose of protecting children's personal data, we received parental consent, let them use nicknames instead of legal names, and provided data privacy training prior to meetings that were held on two occasions. Based on the advisory group's feedback, we developed an easy-to-understand privacy policy that addresses six important topics (Kakao's method of processing personal data, personal data collection, personal data use, provision of personal data, deletion of personal data, and protection of user rights). These guidelines were presented in conversational format between Kakao Friends characters and children so that young users who are not familiar with long texts can still understand them easily. Kakao will expand such procedures to directly engage children or solicit their feedback and remain committed to protecting children's personal data.

#### <An Easy-to-Understand Privacy Policy>



[Link to an easy-to-understand privacy policy](#)

### Raising Awareness on Privacy Protection

We engage in a host of activities to raise awareness on personal data and privacy protection. Regular information security training is provided to all Krew members, including workers under indefinite-term employment, contract workers and part-time workers, and they are required to sign the information security pledge. We offer regular data privacy training to Krew in charge of handling personal data, and such training extended to our Krew working at our customer center in 2021. We also provided data privacy training programs to outsourcing companies who process personal data for us.

In addition to regular training, we provide a range of training to address internal/external issues on an on-going basis, including training provided on data processing policies and protection measures in 2021. As part of our efforts to improve awareness on data privacy and launch relevant campaigns, we have issued the quarterly Data Privacy Magazine for Krew members since 2020 to communicate data privacy issues and relevant rules for Krew to follow. Our goal here is to ensure that everyone participating in our service delivery process understands our data privacy policy and safeguards users' personal data.

#### Information Security Training for Krew and Partners

We provide annual information security training to all our Krew including workers under indefinite-term employment, contract workers and part-time workers as well as employees of our partners who work at our operations under outsourcing contract with us. Such training targets all employees who directly or indirectly access information assets, including Krew, part-time workers and employees of outsourcing companies. In 2021, 2,583 Krew members and 261 employees of partners attended our information security training titled 'Smart Security Life'. This was followed by collecting feedback from trainees to reflect such feedback in the following year's training.

### Information Security Campaign

We designate Information Security Day to elevate Krew's security awareness and help them thoroughly implement security activities in their day-to-day work. In commemorating Information Security Day, we designed and placed posters publicizing basic information security rules, and have conducted security competency mock tests since 2019 to encourage our Krew to participate in information security operations.

#### <Information Security Practice Rules for Kakao Krew to Follow>



**Information Security Management System**

Kakao safely manages corporate information assets through various pre- and post-management systems. Risk analyses are performed on its services and systems and follow-up measures are charted on identified risk factors to make necessary improvements. These analyses are conducted by identifying assets according to a predefined risk management guide, analyzing and assessing asset-related risks to calculate their ratings, and selecting risk management measures based on the ratings.

Preventive Review Activity

Kakao performs diverse preventive reviews to maintain its security level above regulatory requirements. In particular, all Kakao services receive vulnerability reviews including code reviews throughout the year from planning to termination. Identified vulnerabilities are handled through appropriate measures, and review outcomes are listed and managed through our internal groupware.

Robust Access Control

We impose stringent access controls on our information processing system and member database so that only the minimum number of authorized users can access them according to the set procedures. Access rights are granted when access is evidently required within the scope of work, authorized personnel receive constant monitoring, and anti-intrusion system monitoring is conducted to prevent unauthorized access attempts. In addition, we install, manage and operate server firewalls to safeguard critical data.

Employee Control

We perform log analysis and monitoring on personal data access and handling while documenting the history of access right requests. Unnecessary permissions are immediately removed through regular reviews. Kakao ensures that all its Krew members sign the information security pledge, provides data privacy training at least twice a year, and implements a program on PCs to detect and address malicious codes.

24/7 Security Monitoring

Our 24/7 security operation center runs on a dual monitoring system to perform internal monitoring in parallel with monitoring conducted by specialized security vendors. When abnormal signs are detected such as certain IPs making excessive access attempts, we immediately verify their causes and respond accordingly.

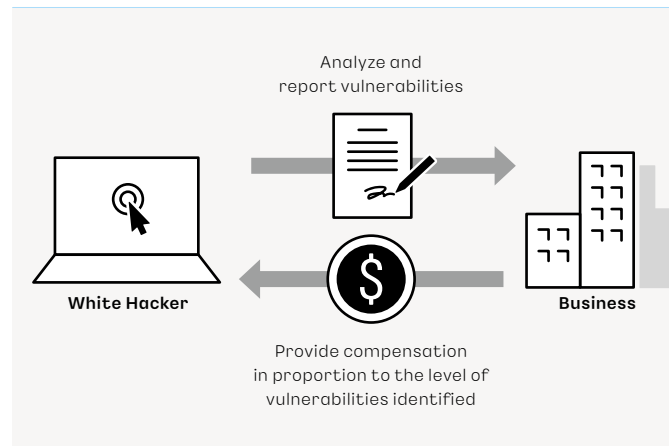
Security Incident Tabletop Exercise

Each year, we provide simulation exercises to prevent security incidents. In 2021, we conducted an APT e-mail simulation exercise once to alert our Krew members to e-mail hacking scams, and another round of exercise involving server hacking scenarios. Also, two rounds of exercises involving artificially triggered DDoS attacks were performed to build stronger preparedness against such incidents.

**Operating the Bug Bounty Program**

We operate the Bug Bounty Program with the Korea Internet & Security Agency. Under this program, anyone who identifies a bug within Kakao's services is entitled to an award which allows us to take necessary measures before they occur. In 2021, 232 security vulnerability reports were submitted by a total of 43 people, and those whose reports proved to be valid were granted monetary awards.

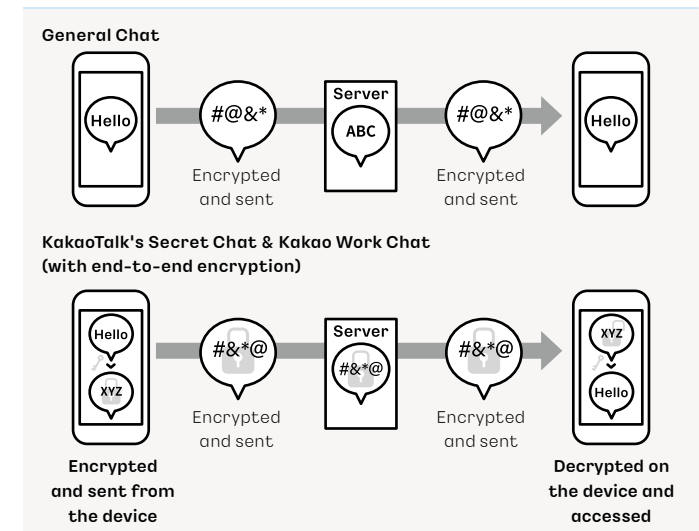
**<Bug Bounty Process>**



**Applying Strengthened Information Security Technology**

Secret chats, one of the functions supported by KakaoTalk, deploy end-to-end encryption technology to provide strong user data protection. This technology transmits encrypted messages and stores decryption keys only at individual terminals, preventing the decryption of user data unless the terminals are directly analyzed. Also, Kakao Enterprise effectively protects client's data by applying its independently-developed E3 (Enterprise Endpoint Encryption) data protection system to all Kakao Work chatrooms. Message encryption/decryption keys are created and stored on the device, and all messages are sent encrypted to the server to prohibit the access of third-parties, allowing for powerful protection.

**<General Chats VS Chats Protected by End-to-End Encryption>**



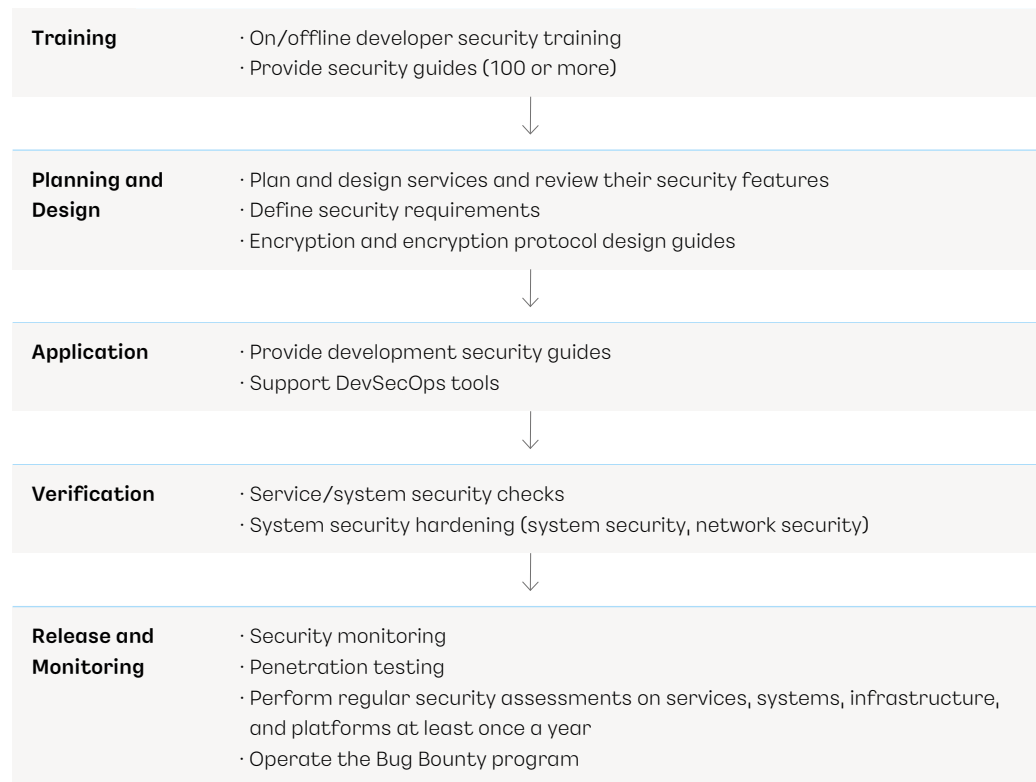
**Achieving the Cloud Security Certification**

Kakao Enterprise's Kakao i Cloud achieved the CSAP (Cloud Security Assurance Program) certification in June 2021 and has since been certified against other domestic and international security standards to demonstrate its stability and reliability. In particular, Kakao i Cloud provides a robust and secure cloud environment on the back of high-performance computing and networking technology to deliver secure and diverse cloud applications in the public and healthcare sectors.

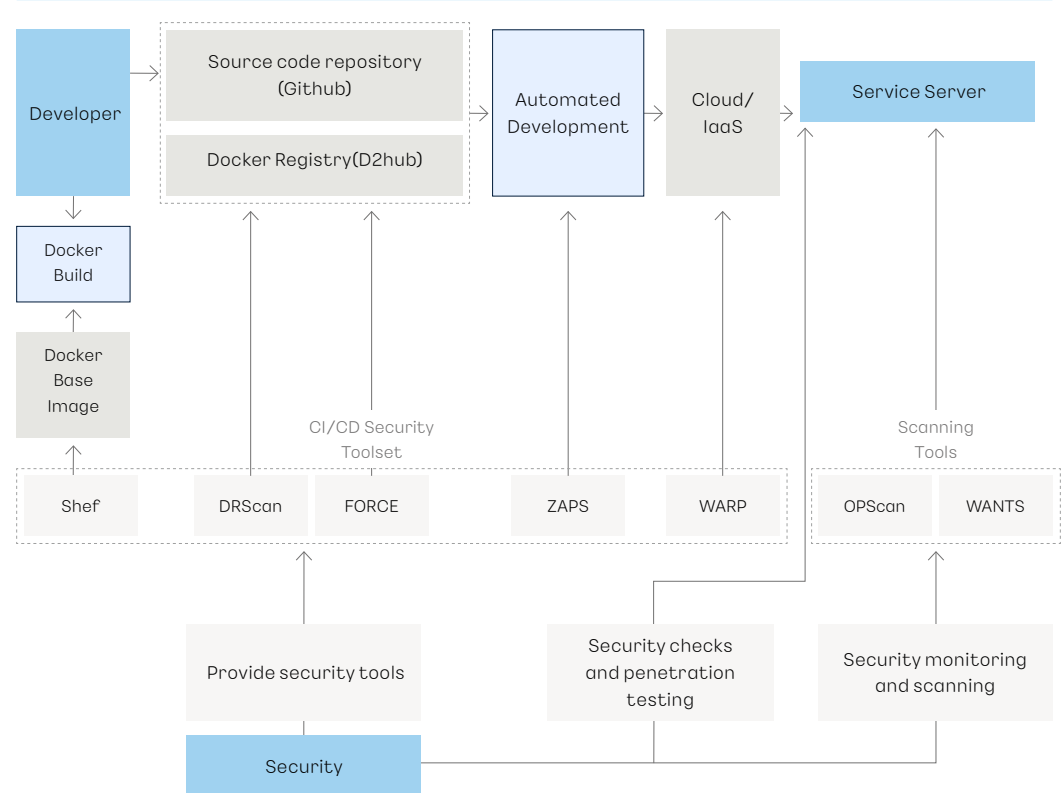
### Security Development Lifecycle

We have established and are operating a security support system that spans the entire development process from service planning and design to development, release and operation. We conduct security reviews and checks across major development phases to reflect security requirements while eliminating security vulnerabilities. In the service development and release phases, we provide SAST (Static Application Security Testing), DAST (Dynamic Application Security Testing), and system reinforcement tools to support security automation. Our services and infrastructure currently under operation receive regular security assessments at least once a year, and our services and systems that are publicly open are also subject to regular security scanning and monitoring to mitigate potential risks.

#### <Security Development Lifecycle>



### <DevSecOps Tools>





**Digital Responsibility**

Kakao protects users from harmful influences including malicious content and digital crime, and ensures equal service accessibility for all users. We aim to establish a lasting trust relationship with users based on the transparency of our technology and services.

**Algorithm Ethics**

In January 2018, we established the 'Kakao Algorithm Ethics' by conceptualizing our corporate principles and philosophy. It stipulates the commitment made on behalf of all Krew members to making Kakao a company with an exemplary level of Kakao Algorithm Ethics awareness, all while illustrating our social responsibility towards algorithm development and operation. Our Algorithm Ethics was amended in August 2019 by adding provisions on technology inclusiveness, and was amended again in July 2020 by adding provisions on children and teens in reflection of the shifting technology and social landscape.

[Link to Kakao's Algorithm Ethics](#)

**Kakao's Teenager Protection Policy**

Kakao implements a teenager protection policy to help them safely navigate the digital world that is freely open to people of all ages. In particular, we apply authentication tools on content that may do harm to teens and pursue preventive action to keep them safe from such content. Our personnel in charge of teenager protection and service personnel are provided with training on regulations and disciplines designed to protect teens, actions to take when identifying harmful content, and procedures to report the handling of non-compliance with such regulations. We will continue to help establish a healthy online culture and help teens become responsible members of our society.

[Link to Kakao's teenager protection policy](#)

**Digital for Kids**

Kakao considers it a primary responsibility to protect young people from harmful internet environments. On top of setting annual business plans to safeguard teens from accessing

harmful content, we appoint the chief officer of youth protection as well as youth protection personnel to perform user protection more systematically. As digital technology plays a bigger role in society, we aim to remain vigilant and respond to issues involving children or teens. To this end, series of actions are taken under the name of Digital for Kids.

Specifically, we have abided by the 'zero-tolerance principle' towards sexual crimes committed against children or teens. In case of breaches of relevant policies, we impose stringent and immediate sanctions on the concerned account and its service use regardless of the number of such violations, and align with investigative bodies to take judicial action if necessary. Also, our AI-enabled 'safebot' technology applied to our openly-available services enables us to detect and prevent illegal or adult/obscene content from being distributed. If the circulation of such harmful content in private communities is confirmed through a user's report, immediate measures are taken to identify the damage and prevent its further spread.



**Joining UNICEF's Child Protection Policy Proposal Presentation**

To introduce our efforts to protect the human rights of children and teens and to explore ways to further international cooperation in this regard, we joined the child protection policy proposal presentation hosted by the Korean Committee for UNICEF in January 2022 under the title of 'children's rights in the digital world'. Young members of the UNICEF Korea

Children's Council proposed policies in four areas to render the digital environment more child-friendly, and we proactively heeded their suggestions and promised to strive to build a better digital environment.

**Participating in the Legislative Process and Implementing Regulations to Protect Children and Teens**

When legislative procedures are undertaken in relation to the protection of children and teens, we actively participate in meetings and state our positions. In October 2021, we joined a presentation held for domestic value-added communication businesses in relation to the Nth Room case concerning the enactment of digital sex crime prevention regulations, and endeavored as a platform company to contribute to preventing the circulation of digital sex crime content. Following the enforcement of such regulations, we continue to fully cooperate with relevant organizations and perform self-reviews. As we bear the mandatory responsibility to examine the operational status of the chief officer of youth protection pursuant to the Act on Promotion of Information and Communications Network Utilization and Information Protection of the Korea Communications Commission, we faithfully fulfill our obligations and respond to field surveys of our operations.

**Preventing the Distribution of Illegal Videos**

Kakao bears the mandatory responsibility to take technical and managerial measures to prevent the distribution of illegal videos including content that sexually exploit children and teens, and takes such actions to prohibit the circulation of illicit video content. Furthermore, we provide detailed information on our customer center website on how to report on the distribution of illegal videos and take proper actions as part of our full commitment to creating a safer digital world.

**<Activities Undertaken in 2021 to Prevent the Circulation of Illegal Videos>**

- 24/7 reporting and deletion: Applied to a total of 36 services
- Restriction on search results: Applied to a total of 15 services
- Prior warning: Applied to a total of 15 services
- Log keeping of actions taken: Applied to a total of 15 services
- Identification and posting restriction: Apply a 6-month grace period

User Protection Policy

In conformity with Article 32 of the Telecommunications Business Act which governs user protection, we work on multiple fronts to develop our user protection vision and plans and make them widely available on our website to create a safe internet environment for all. We protect our users from all illegal or malicious data, and take legally-appropriate measures against abusive language used to slander, insult or belittle others, or any language that discriminates or demeans any individual on the grounds of place of origin, disability or gender affiliation. We have set up a User Protection TF to work with working-level staff at departments responsible for legal affairs, public relations and major service operations to develop policies and engage in regular consultations on the protection of users' right to know and freedom of expression and our corporate social responsibility.

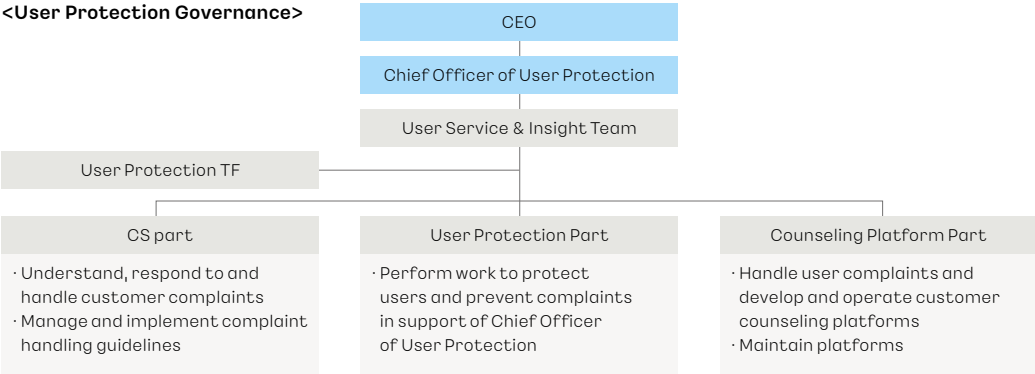
<Our Vision for User Protection>

- We work to develop wide-ranging protection mechanisms to prevent user damage.
- We go the extra mile to handle reasonable feedback and grievances raised by users.
- When such feedback or grievances can't be immediately handled, we inform users of their reasons and handling schedules.
- We work to provide an online environment for all users to access services safely and conveniently.

User Protection Organization

We operate the User Service & Insight Team dedicated to user protection operations under our Talk service business to report relevant issues directly to the CEO. The team leaders assumes multiple roles to protect users, ensure self-directed compliance with user protection regulations while taking responsibility for customer service, teenager protection and the prevention of illegal video distribution. We also operate the User Protection TF as a compliance advisory group for user protection. The TF serves as an emergency response consultation body to protect user rights when any urgent issue arises concerning user protection. The TF consists of nine sector-specific officers from the User Service & Insight Team, the Legal Affairs Team, the Media Team, the Talk Platform Team, the Search Platform Team, and the Government Relations & Policy Affairs Team, and endeavors to ensure user protection across the overall search, media, content and service areas.

<User Protection Governance>



Disclosing Data on User Protection

We fully disclose the requests made by users and governmental organizations to delete specific postings to ensure that users' freedom of expression as their fundamental right is not restricted and we duly protect user rights. Disclosures mainly concern the result of handling reports made by users in relation to copyright/trademark/image right infringement, data breaches, and defamation charges, corrective and deletion requests made by governmental agencies and their handling outcomes, the results of handling requests made by the Korea Internet Self-governance Organization, and regulations and use restrictions imposed on postings and replies following user reports. Such disclosures are compiled and made twice a year in the first and second half respectively.

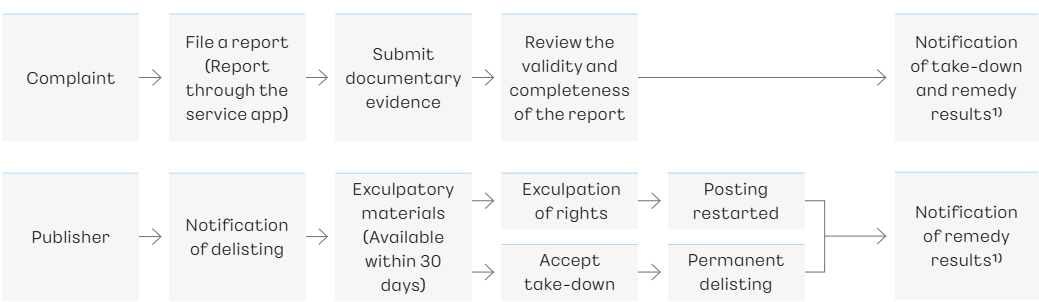
[Link to our user protection data](#)

User Damage Compensation Process

Any user, during his/her use of services delivered by Kakao, suffering any damage incurred on the part of Kakao, is able to report through wide-ranging customer contact channels and is entitled to damage compensation in accordance with applicable laws and regulations and the service terms & conditions. When such damages occur during e-commerce transactions, users can conveniently submit their remedy applications under the e-commerce remedy application agency system made available through our electronic board service. If the use of Kakao's service leads to the infringement of users' rights including but not limited to privacy violations, defamation, or postings that infringe upon copyrights, such damages can be remedied through our Rights Infringement Notice Channel. When those whose rights have been violated submit their concern with documented evidence through the reporting channel, the responsible team verifies these details and notifies the party who posted the concerned content to cease. If their rights are vindicated through the due explanation process, the content can be re-posted, and if they fail to do so, a permanent ban is imposed on the posting of the concerned content. In principle, both parties – the submitter of the report and the publisher of the content – are notified of the handling outcomes within five business days.

[Link to our Rights Infringement Notice Channel](#)

<Rights Infringement Remedy Process>



1) Within five business days

### User Protection Management System

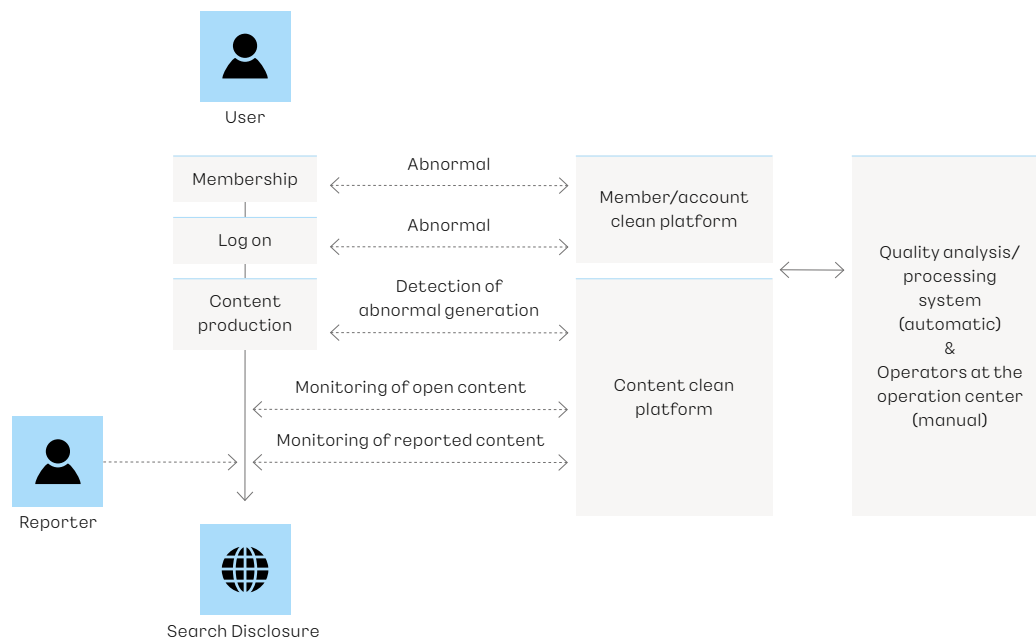
#### Harmful Content Report Center

We operate the harmful content report center 24/7 to keep teens and users safe from harmful content and help them safely navigate the internet environment. Submitted reports are reviewed in real time on their harmfulness: action is taken against harmful content and the handling outcomes are notified to its publisher. Such publishers, when having objections against the disciplinary action taken, have 30 days to submit their reposting applications. When their objections turn out to be valid as a result of reviews, their posting is immediately reinstated, and if not, it is permanently deleted.

#### AI Technology to Block Harmful Content

We operate an AI-enabled automatic content quality analysis and processing system to deny membership to disqualified users and prevent them from logging on and producing harmful content and to swiftly and accurately handle harmful content reports submitted by users. Our Clean Monitoring Operation Center also enables us to perform AI learning and regulatory processing on new types of harmful content. In particular, we leverage AI-based safebots developed to promote responsible practices in posting comments. These safebots analyze with the help of AI technology comments that run counter to our posting policy, including insult, slang, vulgar remarks, and banned keywords, and automatically hide such comments. Safebots are turned on by default, and users may choose to use this functionality or not in their configuration settings.

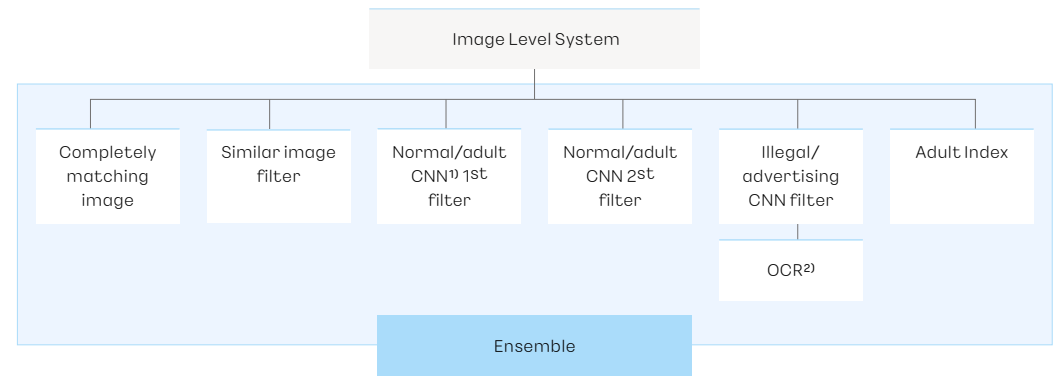
#### <Content Quality Management Lifecycle>



#### Machine Learning Technology to Block Harmful Content

At the if Kakao conference held in 2019, we presented our AI technology to instantly block harmful images under the title of 'How to Survive in the World Filled with Adult Images'. Starting with the method of automatically processing images sharing the same hash with existing ones, our AI technology is extending its scope of learning, and we are developing and deploying our adult (spam) image recommender system by harnessing the ensemble machine learning method which uses multiple models to obtain better performance than could be obtained from any of the constituent model alone.

#### <Machine Learning Technology to Block Harmful Images>



#### Digital Safety Campaign

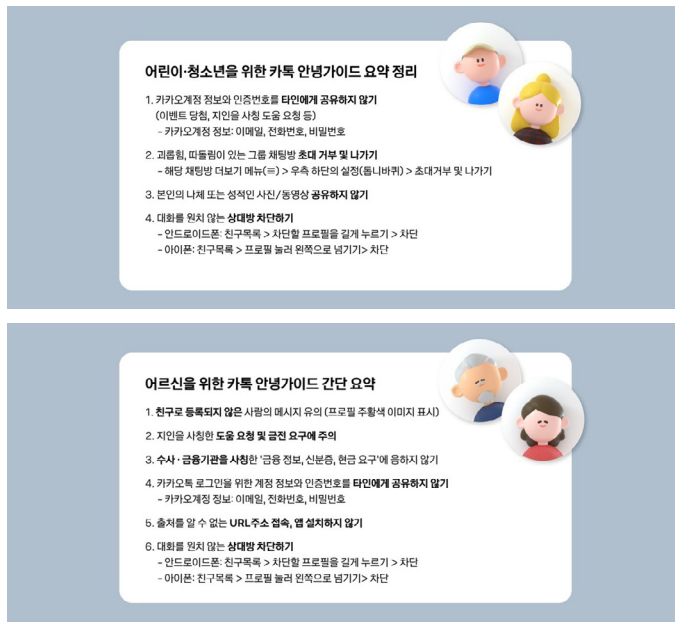
We launch a wide range of campaigns to promote the digital safety of our users. Our emerging financial fraud prevention campaign launched on the Daum portal allows users, when entering search words related to financial fraud prevention or phishing, to receive tips on preventing and responding to fraudulent practices, from illegally gaining personal or financial data by pretending to be one's acquaintance, a financial institution or a public organization to stealing personal data through malicious programs or codes and extorting money by manipulating financial data. Our anti-messenger phishing campaign also provides guidance to prevent and address ill-intentioned practices from obtaining one's data under the identity of his/her acquaintance or a public organization on messenger platforms to accessing account information by way of events or loans or extorting money and valuables by recording pornographic video chats and threatening to circulate such content. The 'How to Safely Use KakaoTalk' campaign disclosed on our Kakao Brunch channel helped introduce common incidents that require Kakao accounts with ill intentions and a range of damages that may occur through stolen accounts so that users can take proper countermeasures.

1) Convolutional Neural Network: Technology mainly used to classify visual images by applying filtering to a multi-layered artificial neural network  
 2) Optical Character Recognition: Technology to convert character images handwritten or machine-printed into machine-readable characters through scanning

### KakaoTalk Safety Guide

To ensure the safe use of KakaoTalk which is found on virtually any smartphone in Korea, we opened the KakaoTalk Safety Guide webpage to outline its operational philosophy and policy and safety tools and guidelines. This came in tandem with Safety Guide for seniors who are digitally underserved and for the protection of children and teens so that these vulnerable groups can easily refer to these guides when encountering any issues.

[Link to the KakaoTalk Safety Guide](#)



### Operating the Safe Digital World Webpage

We opened the Safe Digital World Created by Kakao webpage to provide our users with a sound and safe internet environment. This offers a wide spectrum of information on technologies, policies, reporting channels and relevant organization websites to protect users from any harm in the areas of blocking harmful content and illegal videos, protecting users from right infringement, and eliminating malicious comments.

[Link to the Safe Digital World](#)

### Reinforcing Protection of User Rights Concerning Our Comments Service

We are keenly aware of the adverse impact of online comments that may affect individual human rights, dignity and even life itself, and terminated our comments service for entertainment and sports news to improve on such side effects in 2020. We have since continued to extend stronger protection to user rights concerning our comments service.

#### <Activities Implemented to Reinforce Protection to Users Concerning Our Comments Service>

- Added 'reporting criteria' on hatred and violence
- Tightened regulations on those who post malicious comments
- Added a 'report alert' function to notify those who reported problematic comments of their handling outcome
- Provided a new function to hide undesirable comments or specific individuals posting comments
- Added a new function to hide and/or open the comments section

#### <Operational Status of Our Comment Policy>

- Operate a 24/7 comment report center
- Deploy an anti-abuse<sup>1)</sup> system for comment posting
- Deploy anti-abusing and control systems for yes/no comments
- Introduce automatic filtering for abusive comments including illegal or pornographic ones
- Apply (CAPTCHA)<sup>2)</sup> to prevent specific comments plastering the comment section all over
- Apply AI-enabled substitution through filtering of comments containing insult or slang
- Tighten sanctions against malicious comments and introduce a 'hide' function

### Preventing Scams on the Trade of Secondhand Goods

As online trading becomes more popular, scams targeting the trade of secondhand goods has unfortunately become more common. Since such transactions are primarily made among individuals transferring money in exchange for goods, there is no legal basis to sanction fraud in spite of circumstantial evidence indicating otherwise. Kakao Bank's solution is to continuously operate a model to prevent peer-to-peer transaction scams by detecting money transfers that are highly likely to be involved in fraud and displaying transaction alert messages to users. In 2021, a total of 65,747 alert messages were triggered, and 6,191 of them or 9.4% of total resulted in the cancelation of transfers.

### Guaranteed Freedom of Expression

Kakao ensures the protection of user' freedom of expression. Internally, our User Protection TF develops policies regarding user' right to know and freedom of expression, while engaging in year-round consultations. Externally, we joined the Korea Internet Self-Governance Organization (KISO) in 2009 to make joint efforts with other internet companies to promote self-regulations. Since 2022, we have also joined KISO's linguistic dictionary advisory committee to take necessary measures such as sending warnings against discriminatory or demeaning expressions to users who access internet dictionary services. For 170 words and 73 words associated with disability or specific race and country of origin, we display the warning which goes 'This word may have discriminatory or demeaning connotations and its use requires your caution', and an URL linking to the 'Proper Use of Discriminatory Expressions' campaign webpage.

### Disclosing our RDR 2022 Big Tech Scorecard Ranking

Kakao strives to protect digital human rights including freedom of expression and privacy to promote freer and more diverse connectivity. Such efforts earned us a high score of 44% in the 2022 RDR (Ranking Digital Rights) index published by Open Technology Institute of the US-based non-profit think tank New America<sup>3)</sup>. RDR performs assessments on human rights protection by measuring the Corporate Accountability Index in the areas of governance, freedom of expression and privacy of digital businesses, and currently ranks 14 of the world's most powerful digital platforms. In April 2022, Kakao was evaluated to be most accurate and transparent in presenting its policies affecting users' digital rights and its procedures to address user complaints and provide remedies concerning freedom of expression.

[Link to RDR's Digital Corporate Accountability Index Results](#)

1) Act of abusing the system by interrupting the normal operation of the system  
 2) Completely Automated Public Turing test to tell Computers and Humans Apart: A test designed to distinguish people from computer programs by presenting character combinations that are difficult for programs to tell  
 3) The company ranked first on the RDR index gained 56%, and Kakao was ranked sixth in total among digital platforms

**Efforts to Ensure Diversity in Service Content**

We are concerned about diversity in the areas of content that we directly service, and strive to respect and protect the diverse personalities of users who participate in our platform business service. Our service operation policy makes it very clear that we prohibit any and all act of undermining one's human dignity, inciting violence or encouraging discrimination or prejudice on the grounds of country/region of origin, race, appearance, disability, disease or its lack thereof, socioeconomic conditions and status, religion, gender, sexual identity and orientation or other identity factors.

**Guidelines to Ensure Diversity in Emoticons**

We believe that the emoticon content distributed on our KakaoTalk platform should be made available within a diverse and inclusive ecosystem. We make sure that emoticon creators abide by the moral and ethical standards that we present, and strictly ban any act of violating copyright or trademark right. The Mandatory Guidelines on Ethics, Business and Copyrights for Emoticon containing such details are posted in Kakao Emoticon Studio and communicated to all creators. Anyone who has violated or may violate the rights of others is banned from doing business in the Studio, and is suspended of their sales when they are already doing business. In addition, we analyze the diversity of emoticon creators and the emoticon content being delivered to ensure that emoticons embrace pluralistic values in the digital environment.

[Link to our emoticon ethics guidelines](#)

**Promoting the World Day of Cultural Diversity**

To disseminate the value of diversity, we commemorated World Day for Cultural Diversity for Dialogue and Development on May 21, which was designated at the 57th UN General Assembly in 2002, by operating a banner that featured relevant content on our Daum portal. Going beyond mere celebration, we expressed our full support for the event's intended purpose which is to overcome interracial conflict by respecting pluralistic values and elevating cultural diversity while responding to the global challenges of culture standardization, commercialization and subordination.

**Case** **Establishing the Principle to Counter Hate Speech**

In January 2021, we established the Principle to Counter Hate Speech to ban hateful expressions in public postings within our services, and included it in our operational policy. We also openly published the Kakao Green Paper on Policies for Responding to Hate Speech to transparently disclose the standards and processes employed to establish this principle. The Green Paper outlines the findings from the private-public-academia research conducted on countering online hate speech by Kakao, the National Human Rights Commission and the Korean Society for Media Law, Ethics and Policy Research. In October 2021, we joined the colloquium hosted by the hate speech identification AI research group jointly operated by researchers from Sungkyunkwan University, Ajou University, and Hanyang University to introduce our policy against hate speech and share ideas with experts on the use of safebots.

[Link to Kakao's Green Paper on Policies for Responding to Hate Speech](#)

Concerning our Principle to Counter Hate Speech, we are now exploring its specific standards and action plans. Since 2021, we are operating a research group consisting of experts recommended by academic organizations, the National Human Rights Commission, and the National Institute of Korean Language. This enabled us to develop emoticon ethics guidelines in January 2022 to set out standards governing discriminatory or hateful expressions that apply to emoticons used in our services. The Principle also applies to our advertisement screening policy to make sure our ads do not contribute to discrimination or hatred. In 2022, we will specify the frameworks concerning regulations and subjects for protection in order to establish self-regulatory standards on hate speech and seek ways to implement them.

**<Kakao's Roadmap to Establish Its Hate Speech Policy>**

|   |  |
|---|--|
| <p><b>Track 1:</b><br/>Discuss principles and policy options through Kakao and the Media Advisory Committee</p> <p>Discuss policy options and initiate internal research</p> <p>↓</p> <p>Convene the Media Advisory Committee and discuss</p> <p>↓</p> <p>Host roundtable (attended by experts from 10 organizations)</p> | <p><b>Track 2:</b><br/>Conduct joint public-private-academia research and collect feedback from relevant experts</p> <p>Organize a joint research group</p> <p>↓</p> <p>Recruit researchers and proceed</p> <p>↓</p> <p>Publish findings through seminar</p> |
| <p>↓</p> <p><b>Review the draft version of the Principle<sup>1)</sup></b></p> <p>↓</p>  |  |
| <p><b>Jan. 2021</b></p> <p>Announce the Principle and the Green Paper and apply them to our operational policy</p>  |  |

1) Participants from the advisory committee and the roundtable review the draft



**<Table of Contents for the Kakao Green Paper on Policies for Responding to Hate Speech>**

- Introduction: Why did Kakao decide to counter hate speech?
- Taking stock of discussions made to counter hate speech in Korea and overseas
- Deliberation Process 1: Designing the policy development process through the Media Advisory Committee
- Deliberation Process 2: Conducting joint public-private-academia research on hate speech
- Deliberation Process 3: Analyzing Kakao's data to take stock of online hate speech
- Deliberation Process 4: Holding the roundtable to collect feedback from civil society
- Closing: Kakao's policy direction to counter hate speech
- Appendix 1: Minutes of deliberation meetings
- Appendix 2: Findings from joint research



## Improving Service Accessibility

Kakao is committed to making its services equally and easily accessible to all. We are the first in the domestic IT industry to appoint the DAO (Digital Accessibility Officer) to strengthen digital accessibility together with the Kakao Community, and plan to undertake the Barrier Free Initiative to ensure equal service delivery to all.

### Improving Service Accessibility for Users with Disabilities

Through Linkage Lab, we operate the Accessibility Team where Krew members with and without disabilities collaborate to review difficulties that users with disabilities may face in using new Kakao services, and enhance service accessibility. At the if Kakao conference 2021, the team presented its efforts towards accessibility and garnered much attention. Linkage Lab supports the overall process of identifying and resolving accessibility issues to address grievances collected through our customer center and the National Human Rights Commission.

#### <Activities Undertaken to Improve Service Accessibility>

- Made the ARS authentication service more accessible to users with hearing impairments
- Made the Melon app more accessible to users with disabilities
- Took the accessibility approach to upgrading the KakaoTalk app in 2021
- Made KakaoTalk's PC chatroom message list more accessible
- Launched the private electronic signature authentication (simple authentication) service for KakaoTalk Wallet
- Supported KISA's accessibility on-site due diligence and improved accessibility

### Launching Campaigns to Improve Perceptions on Accessibility

Linkage Lab produced videos and cartoons to improve perceptions on accessibility on four occasions, and worked to disseminate accessibility among connecting Krew under the slogan of 'Improved Accessibility for All'. We take the lead in raising awareness on accessibility both externally through media coverage and press releases and internally through our internal communication channels such as Kakao Brunch and if Kakao sessions.

## Making KakaoTalk More Accessible to Users with Disabilities

KakaoTalk has been working to improve mobile accessibility based on its philosophy of growing together with its users. Updates on its major functions are made through accessibility quality assurance (QA) and monitoring to ensure that people with disabilities can easily use its services. Given that people with hearing impairments can't use the voice-activated ARS authentication method for account verification, KakaoTalk converted to displaying the verification code on the screen first so that users can type in the code. KakaoTalk also provides alternative texts that verbally elaborate on the character names and looks of nearly 180 emoticons in order to support users with compromised vision. KakaoTalk will continue to improve accessibility to support those with disabilities in using its services to engage in daily communication.

### Kakao Certified Under the Web Accessibility Mark Program

In October 2021, Kakao's official corporate website was certified under the Web Accessibility Mark program to ensure equal and easy access for all to the information provided by its website. This national certification program recognizes websites that are designed to eliminate any barriers for users facing challenges with information access including people with disabilities and seniors in accordance with the Korean Web Content Accessibility Guidelines 2.1. We successfully met the requirements of assessments made by experts to verify easy access to all regardless of age or disability and assessments made by users with special needs to verify our website from their user viewpoint.

### Supporting Accessibility for Password Input

Kakao Pay became aware that most easy payment services do not provide speech recognition support, and improved its accessibility by enabling users with visual impairments to use the password keypad as the first easy payment service to do so. Kakao Pay also made it possible to choose from the payment methods registered with Kakao Pay (bank account, credit card, etc.) and to redeem points through voice-activated services, further improving its accessibility.

## Digital Literacy

Digital literacy refers to the ability to understand and use digital technology and content and know how and when to apply it. As we advance into the digital society with the rapid spread of technologies, efforts driven by businesses like Kakao to enhance digital literacy has become ever more important.

### Support for Game Literacy Education

Kakao Games supported game literacy education projects in alignment with local Information & Culture Industry Promotion Agencies. Kakao Games implemented programs for elementary and junior school students in remote areas to disseminate a sound game culture and provided career experience opportunities to raise awareness on game culture.

### Support Teens with Digital Capacity Building

Kakao Bank provided laptops, tablet PCs and other IT devices to children and teens from low income households who could not fully enjoy their right of education were undermined due to lack of access to such devices amid the prolonged online learning caused by COVID-19. This contributed to assisting these children and teens in improving digital capacity and access while narrowing the learning gap. Kakao Bank also operates the 'mini' prepaid electronic payment service for teens aged between 14 and 18 who find it difficult to open their bank account. They can sign up for this service simply with mobile phone self-verification and gain free-of-charge access to deposit, money transfer, payment, savings, and ATM services. Launched in October 2020, the mini membership grew to nearly 1.14 million as of the end of 2021, making it more convenient for more than 45% of the teenagers between the ages of 14 and 18 to use digital financial services.



### Improving User Satisfaction

Kakao ensures that all users can use its services safely and conveniently.

#### User Satisfaction Management System

We operate diverse communication channels to gather feedback — their candid opinions, service reviews and both good and poor service experiences. Such invaluable feedback collected through our channels all go to the integrated Customer Relationship Management System (CRMS) and is safely managed. From the submitted issues, those which can be immediately resolved are addressed through counselors, and those that are not readily solvable are promptly routed to the team in charge of service planning and development. This significantly contributes to developing service modalities and formats which would otherwise not have been considered by service planners and developers, and drives our growth journey to deliver only those services that meet customer expectations head on. Since 2020, we have performed 'counseling satisfaction surveys' on customer inquiry channel users twice a year in the first and second half respectively. Not only do we regularly check their overall satisfaction with counseling, but also we take heed of the inconveniences experienced by these users and reflect their feedback in our counseling training program and job test while reviewing best answers, registering new instructions and making functional improvements. The improvement activities undertaken in 2021 include adding image-based chatbot instructions for emoticon refunds, improving instructions for customers experiencing extended wait times, configuring the webpage which offers profile registration/edit form instructions, and standardizing the title of documents.

#### <Wide-ranging Communication Channels>

- Counseling Talk through KakaoTalk
- Making inquiries with the customer center established on the website and application
- Emergency phone counseling and reporting center open 24/7
- In-person visits at customer centers

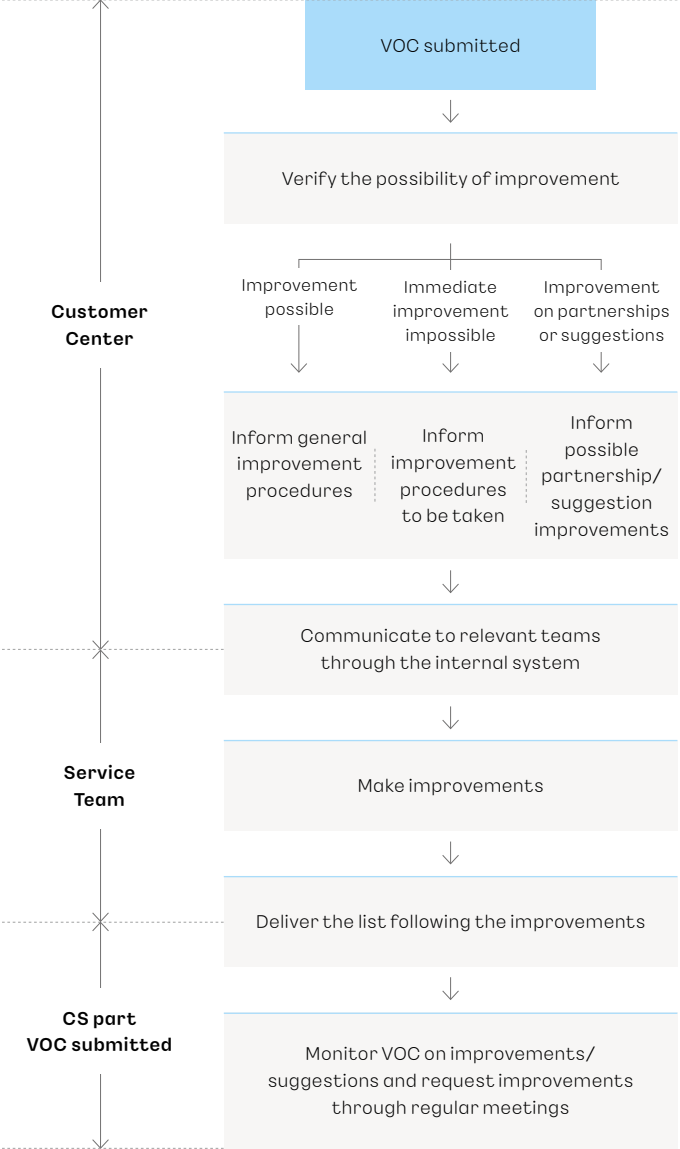
#### User VOC Handling Process

Service improvement requests and suggestions submitted through our communication channels are handled promptly and accurately in accordance with the set VOC (Voice of Customer) handling process. This process is primarily led by the customer center, the service planning and development team, and the CS part, and VOCs are gathered and managed at the company-wide level through the integrated CRMS. Work is underway on an on-going basis to expedite our VOC handling process with improved accuracy.

#### <Improvements Made to Our VOC Handling Process in 2021>

- Send reminders to responsible personnel when delays occur in checking the inquiries posted on the CS board system
- Alert counselors as well when users do not input messages for a specific period of time on the Counseling Talk channel
- Increase the size of attachments posted by users when registering their inquiries and provide thumbnail previews
- Send Talk notices when user inquiries are answered or reply e-mails are sent

#### < VOC Handling Process >



## Strengthening User-centered Services

### AI-powered Customer Center

Our 'counseling chatbot', available through the Kakao Customer Center Plus Friend, is the first in Korea to deploy machine learning-based technology to analyze questions and recommend answers. Knowledge Plus powered by AI's machine learning analytics analyzes concerns for which customers may require assistance and the relationship between identical or similar questions and chosen answers, and to engage in self-initiated learning to recommend more accurate answers. In 2021, we established a process for users to initialize their verification and change their e-mail address on their own with the help of chatbots. To this end, necessary preconditions were checked and users were guided by chatbots to follow the predetermined steps while document submissions were rendered easier and faster through chatbot messaging. This streamlined such work that previously involved complicated procedures and the tremendous input of manpower. Leveraging Kakao's further advanced AI technology, we will continue to deliver upgraded functionalities to support our customers just as they wish at the time and under conditions of their own choosing.

### Integrating User Feedback in KakaoTalk Shopping

We survey users of KakaoTalk Shopping every quarter. In the survey performed in Q3 of 2021, 1,794 respondents pinpointed major grievances including inconveniences caused by deal opening/participation of Talk Deal and delays in package delivery. We have fully reflected on such user feedback and completely overhauled our Talk Deal service to allow individual users to make immediate purchases and thereby, improving user experience.

### Launching the Consumer-centric Management Declaration Ceremony

In line with the Financial Consumer Protection Act taking effect in September 2021, Kakao Pay hosted a ceremony to declare its commitment to consumer-centric management to live by the value of 'The Finance with Peace of Mind'. At the declaration ceremony, Kakao Pay publicly committed itself to advancing consumer-centric management and protecting the rights and interests of consumers and declared the Financial Consumer Protection Charter, along with its employees pledging themselves to protect financial consumers. The Charter includes provisions on protecting the rights and interests of financial consumers, protecting assets, ensuring clarity and transparency in service/product information, proactively collecting feedback from financial consumers, and addressing financial disputes in a fair and swift manner.



### Operating a Customer Advisory Group

Kakao Bank launched the first customer advisory group in 2019 and has since continued to operate such groups. In the wake of COVID-19, Kakao Bank changed its mode of operation from offline to online and increased the number of participants from 15 to 60 per year. Kakao Bank ensures diversity and balance in its customer feedback process by engaging customers from different age groups, from teens to those in their 60's, and promoting equal gender representation. Regular online meetings are held to collect varying opinions to improve the quality of service, and they are delivered to relevant teams as improvement tasks to relevant teams when necessary. Kakao Bank follows up on this by managing review opinions and ensures it fully reflects customer feedback.

# Community

Kakao creates social impact by connecting the dots among users, technology and value. We reach out to work together with our partners, Krew members and communities to make a positive difference to the world.

## Creating Social Impact

Kakao leverages its impact platforms to engage people and disseminate the value of serving the public interest. We create a wholesome ecosystem where every member of society serves in their own distinctive ways to make this world a better place.

### Social Impact Approach

We assist those who step up to resolve social issues in their own distinctive ways by providing them with platforms, funds, content, and technology to help create social impact. Our 'Kakao Together' and 'Kakao Project100' platforms serve to create meaningful connections with users, and our 'Kakao Impact Fellowship' joins hands with innovators who create a better world. We donate 3% of our operating profit to raise funds and support people, organizations and businesses to tackle social challenges in conjunction with the Kakao Impact Foundation. In undertaking all these social impact projects, our ultimate goal lies in generating a meaningful impact in society rather than simply inputting more resources.

### Social Impact Organization

We operate a dedicated social impact organization under the ESG business division to leverage our innovative ideas and business capabilities to help resolve a range of issues. To take the Kakao Style approach to creating social impact, this organization engages professionals capable of undertaking social impact projects through the use of technology and platforms. We also collaborate with innovative and professional partners from outside Kakao for diverse project undertakings.

### Kakao Impact

Kakao established the Kakao Impact Foundation in 2018 to take a more systematic and professional approach to generating social impact. We define 'impact makers' as those who bring

positive impact and can make a difference in the world, and explore a wide range of opportunities while identifying innovative ideas to pursue valuable transformation across society through platform development and project undertaking.

#### <Mission of Kakao Impact>

|  |   |
|--|---|
| <b>We lay the basis to disseminate a culture of serving the public interest.</b> | We build and operate diverse platforms that help serve the public interest to disseminate a climate of giving and create a culture of community based on consensus and communication.                     |
| <b>We identify innovative projects.</b>  | We identify and develop innovative projects that ignite positive social change, and build a participatory platform for all members of society to serve as both agents and beneficiaries of social change. |
| <b>We build a creative ecosystem.</b>  | We build and support an ecosystem for creators to unleash their ideas and potential to grow.  |

### Kakao Project 100

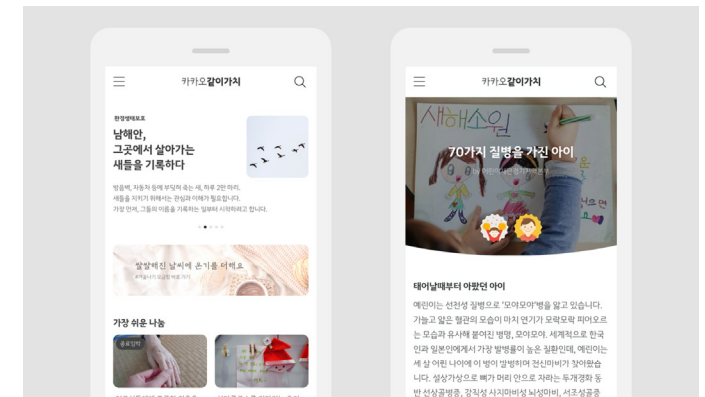
Kakao Project 100 is a platform geared at behavior change by supporting people who have taken the very first step towards positive behavior and assisting them in staying the course through creating small yet meaningful achievements in daily lives. We operate this platform seasonally so that a community sharing the same goal can initiate and terminate a project collectively. In 2021, Beta Season 4 was run with a range of 100-day projects undertaken in the areas of protecting the environment (picking up trash while jogging, taking eco-friendly actions during the day), building bonds between teachers and students at junior and high schools, supporting the psychological resiliency of NEET (Not in Education, Employment or Training) youth, and measuring one's mental well-being daily.

### Kakao Together

Kakao Together is Kakao's CSR platform launched in December 2007. This voluntary donation platform enables anyone to directly propose, implement and participate in donation campaigns so long as they serve the public interest. We are

reinforcing its role as a public interest platform by extending its scope from mere fund-raising to measuring the well-being of our society through measurements and diagnostics that chart the psychological status of individuals. As of Dec. 31, 2021, a total of 41,640,000 donations were made to raise nearly KRW 47.1 billion. To this end, 14,368 donation boxes were placed, and approximately KRW 5.6 million was collected per project.

[Link to Kakao Together](#)



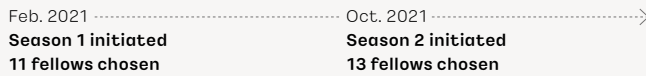
#### <Kakao Together Campaigns Launched in 2021>

|  |  |
|--|--|
| <b>Virtual 815 Run Campaign</b>            | <ul style="list-style-type: none"> <li>Virtual running campaign for independence patriots</li> <li>When participants left proof of their virtual run, Kakao donated KRW 815 to help build houses for descendants of independence movement activists</li> <li>KRW 650 million raised/34,000 participants</li> </ul>   |
| <b>Release of sign language giveticons</b> | <ul style="list-style-type: none"> <li>Launched sign language giveticons produced by hearing-impaired artists from Hand Speak and emoticon creators</li> <li>Kakao donated a portion of the emoticon sales proceeds which produced history education and art content in sign language for hearing-impaired students and helped replace old cochlear implants and hearing aids with new ones</li> <li>KRW 53.95 million raised / 68,000 participants</li> </ul> |

### Kakao Impact Fellowship

Kakao defines social innovators as those who approach a range of social challenges from unique perspectives, courageously blaze a trail when no one else dares to do so, and move forward to shape a better future rather than merely staying put. Kakao Impact Fellowship supports these social innovators to go on their journey and disseminate their impact along the way. In 2021, we chose 24 innovators as our fellows under this project, and we will continue with our support so that these social innovators raise their voice and agenda far and wide.

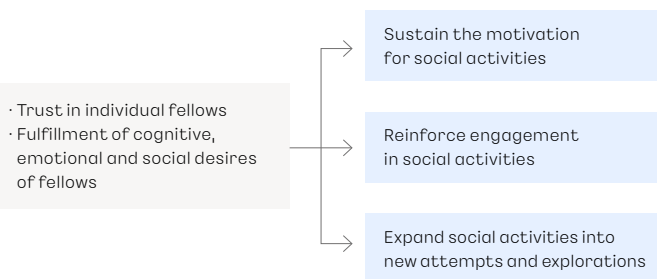
#### <History of Kakao Impact Fellowship>



### Research on Effectiveness Verification through Kakao Impact Fellowship

We conducted effectiveness verification research through Kakao Impact Fellowship to identify factors that affect the growth of social innovators. In-depth interviews and online surveys were performed on fellows on two occasions, and feedback on Kakao Impact Fellowship was solicited from experts. Such analyses revealed that communication satisfaction with Kakao Impact (trust and support) was highly correlated with bridging social capital<sup>1)</sup>, work engagement and self-esteem. We also identified the need to maintain and facilitate close connections between Kakao Impact and fellows.

#### <Implications on Social Innovator Growth Factors>



1) Resources that could be potentially gained through indirect relationships with others, and refer to opportunities derived from the expansion of internal/external networks through Kakao Impact

### Case Kakao Impact Fellowship Supporting Social Innovators

#### Support Activities of Kakao Impact Fellowship

Fellows chosen by Kakao Impact Fellowship are provided with Loudspeaker, Seed money, and Network. In particular, Loudspeaker supports publicity work on multiple fronts including channels aligned with Kakao platforms to ensure that fellows' agendas and voices are publicized widely.

| Loudspeaker  | Seed money   | Network  |
|--|--|--|
| Diverse publicity channel support  | KRW 2 million/month for 2 years  | Peer group formation   |
| <ul style="list-style-type: none"> <li>Provide publicity support on multiple fronts including channels aligned with Kakao platforms</li> <li>Engage in publicity operations tailored to fellows' activity areas</li> </ul> | <ul style="list-style-type: none"> <li>Provide activity expenses for fellows to fully engage in their meaningful work</li> <li>Attach no conditions to the use of funds and promote voluntary participation</li> </ul> | <ul style="list-style-type: none"> <li>Support the creation of communities and networks to connect social innovators</li> <li>Support fellows for their voluntary cooperation and freedom of solidarity</li> </ul> |

#### <Achievements Made by Kakao Impact Fellowship>

As of Dec. 31, 2021

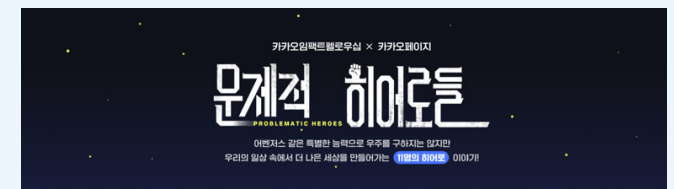
|  |  |
|--|--|
| Contributions to fellowship Seed money | Support provided through Kakao Together fund-raising and funding |
| KRW 368 million                        | KRW 39.21 million  |



#### Fellowship Support Provided through Kakao Platforms

<Problematic Heroes> is our conversational content created by bringing together 11 fellows from Kakao Impact Season 1 and influential speakers from outside Kakao, and was produced and released on the KakaoPage platform. This paid content successfully posted 98,000 in the cumulative number of views and 30,000 in the number of paid downloads as of December 2021. This indicates that fellows were given an opportunity to disseminate their message with the help of the KakaoPage platform and Kakao was also able to boost its platform through fellows' engagement. Kakao TV original content, Daum Gallery's online photo exhibition and other wide-ranging Kakao platforms were put to use to communicate the value of fellows.

As of Feb. 2022



98,000 cumulative downloads of <Problematic Heroes>

|   |  |
|---|--|
| Cumulative No. of views of the episode featuring Eunmee, Park and Jeongyun, Jeong as fellows of <Shall We KakaoTalk?> on Kakao TV | Cumulative No. of views of 'Let's Ride the Bus,' a photo exhibition held in commemoration of the 20th anniversary of fight for mobility for people with disabilities on Daum Gallery |
| 460,000 views   | 37,000 views   |

#### Producing and Distributing Video Content through Youtube Channel Collaboration

We have produced and distributed short-form video content illustrating the story and agenda of fellows in conjunction with our Youtube channel partners. The total cumulative number of views exceeded 2.14 million to support fellows to publicize their projects on Youtube.

Link to Kakao Impact's Youtube channel



**Partner Cooperation**

At Kakao, we pursue sympathy and genuine interaction as equally critical values as convenience in the digital communication era. In the warmth of Kakao's digital world, we successfully connect people with innovative technology.

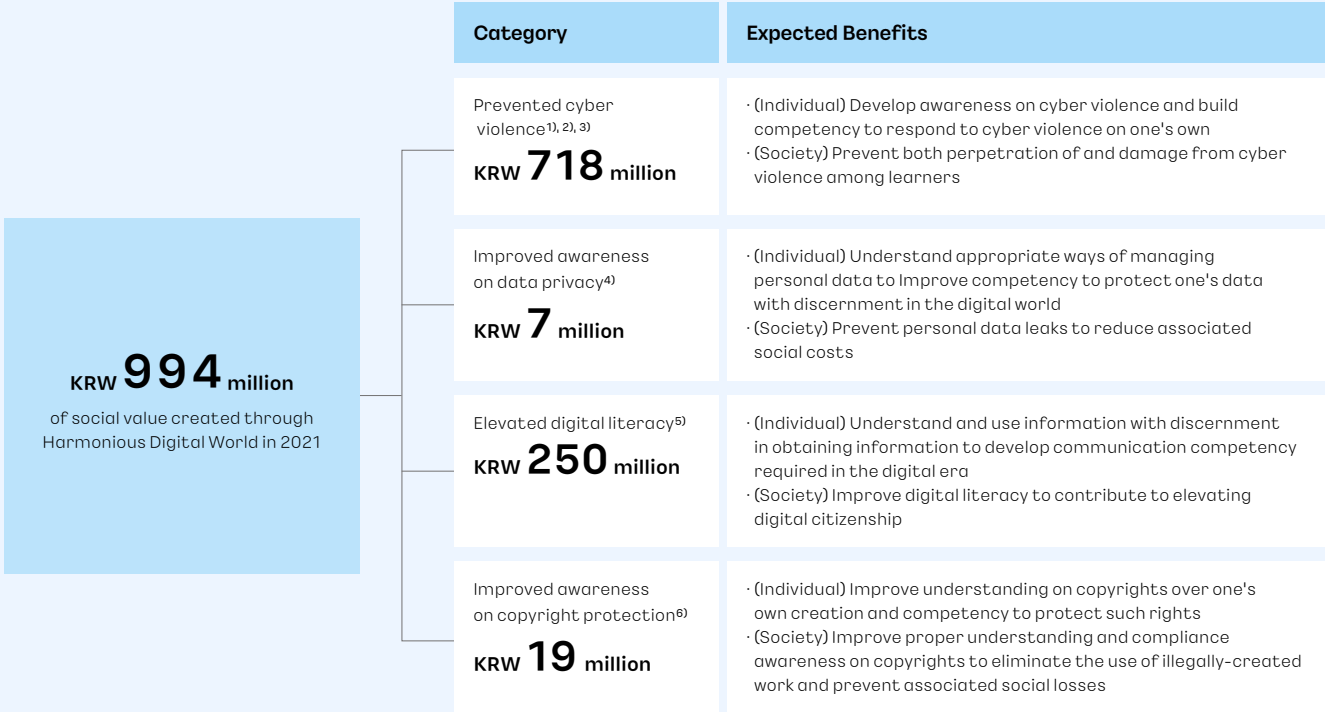
**Harmonious Digital World**

Harmonious Digital World is a digital citizenship education program jointly hosted by Kakao and the Blue Tree Foundation since 2015. This program educates values that are critical for teenagers who understand the world through the lens of digital devices to develop a set of sound values and digital citizenship in the safe digital environment from their elementary school years. It also helps students and teachers learn through play and engagement about personal data protection as well as about understanding and responding to cyber violence to help our future world leaders develop digital citizenship. In 2021, Harmonious Digital World was operated in a total of five areas. Its flagship program titled Digital Citizenship Education was provided to 20,495 students in 862 classes, and 176 teachers attended its training program. To pave the way for more students to access such education, we recruited 42 new lecturers. We also created a website for this program to raise its profile and encourage participation, and continue to study its educational effectiveness. In addition, we have produced and are utilizing virtual educational content to reliably provide education in the face of disruptions occurring in the external environment.

1) Cyber Violence Survey 2021, Korea Communications Commission  
2) Cyberbullying, Mental Health, and Violence in Adolescents and Associations With Sex and Race: Data From the 2015 Youth Risk Behavior Survey  
3) Open data from the National Health Insurance Service (2017)  
4) Information Security Status Survey Report 2020, Ministry of Science and ICT  
5) "Status Online" Programme SROI Report  
6) Annual Copyright Protection Report, Korea Copyright Protection Agency

**Case How much social value was created by the Harmonious Digital World program?**

The Born Digital Generation grew up during the evolution of information and communication technology, and they are the most active users in cyberspace and are also most influenced by the media. While cyber spaces fulfill a positive function in helping people express their opinions, learn new information and accumulate experience, they can also generate negative results, including cyber violence and personal data leaks. Specifically, adolescents are relatively less mature in distinguishing the merit or danger of such online spaces and it is highly critical that they cultivate proper digital competences early on. Through Harmonious Digital World that aims to help teens improve their digital competences, Kakao quantitatively measures and shares the value created by resolving social issues in the digital world.



**# Social value (monetary value) created and Kakao's view on the outcomes**

Creating a better world as Kakao envisions it starts with resolving issues that our society faces today. If we can't address social issues, this incurs social costs that should be jointly shouldered by present and future generations. We measure the achievements made in resolving social issues in monetary terms so that they serve as a standard by which to prioritize social issues based on their severity and significance and manage them accordingly. In so doing, we focus on tackling four social issues that laid the foundation for our Harmonious Digital World program while preemptively identifying and addressing emerging social challenges that our Born Digital generation will likely live to experience.

**Kakao | Animal Welfare Campaign**

Donation Promotion on International Cat Day

Kakao launched cat-themed products and made donations through KakaoTalk Gift and Kakao Makers in commemoration of International Cat Day. Under the Choonsik Gift Code Post Office promotion program, supplies for street cats that users purchased with their KakaoTalk gift code were donated to animal rights organizations, and Kakao additionally donated feed in proportion to the frequency of event participation. This program was joined by 8,957 users in total to donate 13,408 cat snacks and 2,898kg of feed to 76 street cats. Kakao Makers planned custom-made T-shirts and mobile phone cases designed with cat motifs and donated their sales proceeds totaling KRW 19 million to the 'Bring Back the Light to Cats' campaign launched to help treat street cats suffering stomatitis.

**Kakao Games | Narrowing the Digital Divide**

Recruiting Digital Supporters for Small Businesses

In March 2022, Kakao Games launched a CSR program titled Teen & Youth Digital Supporters in partnership with the Seongnam City Youth Foundation to promote community development and narrow the digital divide for small businesses that are digitally-underserved. This aims to explore ways to increase and facilitate sales for small businesses and support them with online platform operation, directly planning and providing content to close the digital gap.

PC Donation Campaign for the Digitally-underserved in Communities

In October 2021, Kakao Games teamed up with the Seongnam City Youth Foundation to donate PCs to the digitally-marginalized in the community. A selection of PCs used by employees for business operations were upgraded and donated to the Foundation, and then went to 35 locations to support local children with virtual learning and leisure activities. This campaign helped protect the environment through resource circulation and communicate the joy of equal access and the significance of learning to digitally-underserved groups.

Friends Game Land

Kakao Games has provided children with a unique opportunity to experience game culture, starting with 'Seongeun School' which offers special education in October 2019, to support the marginalized in enjoying game culture. Campaigns have been launched since April 2021 for local children centers in Seongnam including the Jeongja Youth Center, the Sujeong Youth Center and the Pangyo Youth Center to expand experience opportunities for local children. 4D VR Game Bus allowed these children to virtually experience amusement parks even in the COVID-19 pandemic, along with Braille Block Game, Lion Photo Zone and other diverse programs.



**Kakao Bank | Finance That Empowers People**

Supporting Mom-and-pop Shops Affected by COVID-19

Kakao Bank supports mom-and-pop shops facing difficulties caused by the economic downturn and social distancing rules amid the prolonged COVID-19 pandemic. Kakao Bank provided cash support worth KRW 100 million in total to help financially-strapped small businesses to turn around and stand on their own.

Inclusive Finance

Kakao Bank has waived fees for all CDs and ATMs installed across the nation as well as convenient stores to ensure offline accessibility for customers. In 2021, Kakao Bank lowered interest rates to expand mid-range interest rate loans based on its own credit and increased the limit to up to KRW 100 million while operating a special machine learning-based credit rating system for individuals with medium credit ratings and insufficient financial track records. Kakao Bank is also the sole financial institution to support youth with 100% mobile deposit/monthly rent loan application and execution. To help customers proactively exercise their rights, Kakao Bank sends notices to customers to demand interest rate reductions when their credit ratings improve, and grants exemptions on early repayment penalties to reduce their financial expenses.

**<Achievements Made through Inclusive Finance>** As of Dec. 31, 2021

| CD/ATM fees waived                            | CD/ATM transactions                | CDs/ATMs made available |
|---|------------------------------------|-------------------------|
| KRW 55.9 billion                              | 73 million cases                   | 120,000 units           |
| Right to request interest rate cut recognized | Early repayment penalties exempted |                         |
| 139,168 cases                                 | KRW 22.2 billion                   |                         |

Identifying Unclaimed Deposits and Insurance Benefits

We contribute to expanding social benefits through our platforms by pursuing technology/product/service innovation. In July 2021, we partnered with the Korea Inclusive Finance Agency to launch a service to identify unclaimed deposits and insurance benefits, and are leveraging KakaoTalk's easy money transfer to prevent erroneous transfers, fraud in the trade of secondhand goods, voice phishing, and fraud accounts, continuously working to support safe financial transactions.

**<Achievements Made through Unclaimed Deposit/ Insurance Benefits Identification Service>** As of Dec. 31, 2021

| Unclaimed deposit/insurance benefits claimed | Unclaimed deposit/insurance benefits claimed |
|--|--|
| 888,000 cases                                | KRW 20.5 billion                             |

### Activities That Engage Our Krew

We go beyond making better connections among people to pursue harmony with the world with the belief that we are all connected. We bring positive impact along with our Krew and make a lasting difference in so doing.

#### Together Fund

Kakao launched an employee donation program back in 2009 and then took a step further in 2015 by creating 'Together Fund' as a regular donation fund engaging our Krew. In 2021, we teamed up with partner organizations who are experts in their own field to implement a total of seven CSR projects. Our Krew are permitted to donate as much as they want for the project of their choice, and Kakao matches the donations and donates the funds raised as such to pioneer the dissemination of a culture that finds value in giving. In 2021, a total of 1,054 Krew members joined the Together Fund regular donation program: they donated KRW 203.10 million and Kakao matched the donations to additionally donate KRW 226.85 million.

As of Dec. 31, 2021

| Krew who donated | Donations by Krew | Matching grants donated by Kakao |
|------------------|-------------------|----------------------------------|
| 1,054 persons    | KRW 200 million   | KRW 230 million                  |



#### <Together Fund Project Area>

| Project  | Description   |
|--|---|
| Self-sufficiency support for children from low income families | We teamed up with ChildFund Korea to forge ties with nearly 100 children from low income families in Korea and provided financial and emotional support for their education and self-sufficiency.               |
| Educational support for children overseas                      | We partnered with the Heart to Heart Foundation to donate digital devices for virtual learning to children from vulnerable families in the Philippines who could not receive in-person education amid COVID-19. |
| Residential support for seniors                                | In conjunction with Habitat Korea, we renovated the old residences of six senior households in Gangwon Province to provide a cozy and comfortable living environment.   |
| IT education for underprivileged teens                         | We teamed up with the Daum Foundation to provide 140 children from low income families with education on digitally-enabled fun and safe media with the topic of 'the way I am'.                                 |
| Environmental and ecological preservation                      | We explored ways to conserve the environment by demining the DMZ, and provided education to the public on how to take action to respond to climate change in conjunction with Green Korea.                      |
| Rehabilitation support for children with disabilities          | In cooperation with the Purme Foundation, we provided 59 children with disabilities with rehabilitation treatment and emotional support programs that are essential for their daily lives.                      |
| Support for children from low income families in Jeju          | We provided livelihood and educational expense support to 28 low income households in Jeju to help them continue with childcare and education in partnership with the Jeju Family Support Center.               |

#### Together Act

Kakao operates 'Together Act' to support Krew members in their volunteering so that they become more involved in self-initiated social giving programs. Under this unique volunteer initiative, our Krew members take the lead- all the way from planning to execution - and are supported in paying activity and program expenses, offering educational programs and liaising with beneficiaries. As they volunteer across several environments including orphanages, soup kitchens and animal shelters, they realize their small yet meaningful actions bring a positive impact on the world. In 2021, we teamed up with Green Korea, a cooperation partner of Together Fund, to provide online lectures and undertake challenge programs in relation to climate change.

### Communicating with Communities

Kakao reaches out ever closer to the local community of Jeju to contribute to its development and create opportunity for shared growth.

#### Kakao Class

Kakao Class is our lecture program provided through business cooperation with the Jeju Center for Creative Economy & Innovation to enable prospective small businesses in and out of Jeju to receive training on how to use Kakao's diverse service platforms. Initiated in 2016, this program has been attended by more than 1,500 participants as of December 2021, with our Krew serving as lecturers and mentors. In 2021, Kakao Class contributed to expanding the sales routes and revenues of small businesses by performing pre-reviews on their joining the KakaoTalk Store platform, providing exhibitions, and supporting Kakao's advertising platform (Kakao Moment).

#### Jeju Center for Creative Economy & Innovation

We partner with the Jeju Center for Creative Economy & Innovation to help build a startup ecosystem in Jeju. The Center established the goal to lead the transformation of the regional startup ecosystem through collaboration and partnership under the vision of 'Jeju, a Creative Island with a Novel Connection'. In 2021, we donated to the investment funds set up to establish the Startup Island Investment Association to generate synergy with Jeju's startup ecosystem. In particular, we focused on boosting investments into tech startups as well as innovative startups that successfully combined regional resources with business models.

#### Reinforcing the Identity of Jeju

In commemoration of the 73rd anniversary of the April 3 incident, we released content on the remains of this uprising through Kakao Map and Daum Gallery. On Kakao Map were registered 29 major sites of the April 3 incident, and a thematic

map which grouped 10 of these sites was made public. The map starts with the plaza in front of Gwangdeokjeong which triggered the incident and the house of Mrs. Moo Myeong-cheon to understand her life trajectory following the uprising. Daum Gallery also hosted an online exhibition titled 'Along the path of spring flowers, along the painful history of the April 3 incident, Remains of the Jeju Uprising' to organize and present the sites of the incident by timeline and topic to chronicle the Jeju April 3 incident from its initiation to scorched-earth operations. Furthermore, Kakao continues with consultations to find ways to search Jeju language which is being lost on portal websites to help Jeju maintain its identity.

#### Dolharbang on the Internet of Kakao

This CSR program fulfills the wishes that serve the public interest made by individuals and families residing in Jeju as well as social welfare and non-profit organizations located in Jeju. Jointly operated by Kakao and the Community Chest of Korea in Jeju, wishes submitted are reviewed every two months, selected for their contribution to public interest to bring positive change to the local community of Jeju, and sponsored accordingly. In 2021, 497 individual wishes and 226 group wishes were provided with assistance, and total donations amounted to KRW 919 million.



### Jeju Impact Challenge

Jeju Impact Challenge is open to any residents in Jeju who are interested in solving all kinds of local issues. Seven finalist teams were selected for this five-month project. Participating teams advanced the project through design thinking<sup>1)</sup>-based problem-solving workshops and mentoring and received subsidies ranging from KRW 2 million to upto 4 million, plus the follow-up support for outstanding projects.



### IT Education for Teens

Kakao bolsters software education for elementary school students in Jeju to help them better cope with the shifting information and knowledge paradigm in society, and operates career experience programs for middle/high school students to pursue their desired paths forward.

|                             |   |
|-----------------------------|---|
| <b>Unplugged Day</b>        | Allow kids to learn computing principles through play-driven learning                                       |
| <b>On-site Coding Class</b> | Help kids develop creativity and imagination that is sought after in the digital age                        |
| <b>Show me the IT</b>       | Help students during their free-semester period experience Kakao-related career paths and service workshops |

As of Dec. 31, 2021

|   |  |  |
|---|--|--|
| <p><b>Show me the IT for career experience</b></p> <ul style="list-style-type: none"> <li>· Provided to 15 schools in total</li> <li>· Completed by 745 students</li> </ul> | <p><b>Career mentoring conducted through remote videos</b></p> <ul style="list-style-type: none"> <li>· Provided 45 occasions in total</li> <li>· Completed by 4,663 students</li> </ul> | <p><b>Harmonious Digital World</b></p> <ul style="list-style-type: none"> <li>· Provided to 69 classes in 17 schools</li> <li>· Completed by 1,470 students</li> </ul> |
|---|--|--|

1) A problem-solving approach to define the 'true problem', identify the 'right' solution and swiftly apply such solutions



# Governance

### Why this Matters

Building sound governance and forging trust-based relationships with stakeholders in so doing is essential in ensuring a company's sustainable growth. Disclosure requirements are ever-tightening in Korea and abroad, and stakeholders today increasingly demand that businesses establish transparent governance. This highlights the need to continuously improve governance and protect the rights and interest of stakeholders. It is also critical that businesses develop regulations and provide training to support employees with ethical decision-making to build integrity and fairness into their corporate culture.

### Approach

Kakao set forth the Corporate Governance Charter with the view to ensure transparent governance that will serve as the basis for its sustainable business operations. The Charter guides our top management to responsibly fulfill their managerial roles under the supervision of a professional, diverse and independent Board of Directors. We introduced a mid/long-term stakeholder return policy to elevate stakeholder value, and establish integrated risk management regulations and tax policies to promote systemic and principle-driven business operations. We also comply with our Code of Ethics to build trustworthy relationships with stakeholders, and pursue the highest level of integrity by providing our Krew with regular ethics training.

### Reporting Contents

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| · Risk Management      | 85 |
| · Ethical Management   | 88 |

### 2021 Highlights

#### Securities Market category of the Korea IR Awards

## Grand Prize

in 2021

Excellence Award in 2020



#### Introduced a mid/long-term stakeholder return policy

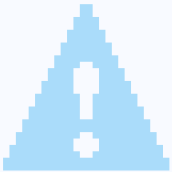
## 15~30%

Ratio of non-consolidated free cash flow to fund the shareholder return policy



#### Bolstered integrated risk governance

## Stipulated integrated risk management regulations



#### Ratio of newly-hired Krew who completed ethics training

## 100%

in 2021

1,101 Krew members hired in 2021





# Corporate Governance

We establish sound and transparent governance and fully disclose our standards and activities on governance operations to pave the way to pursue sustainable growth and increase shareholder value.

## Shareholder-friendly Management

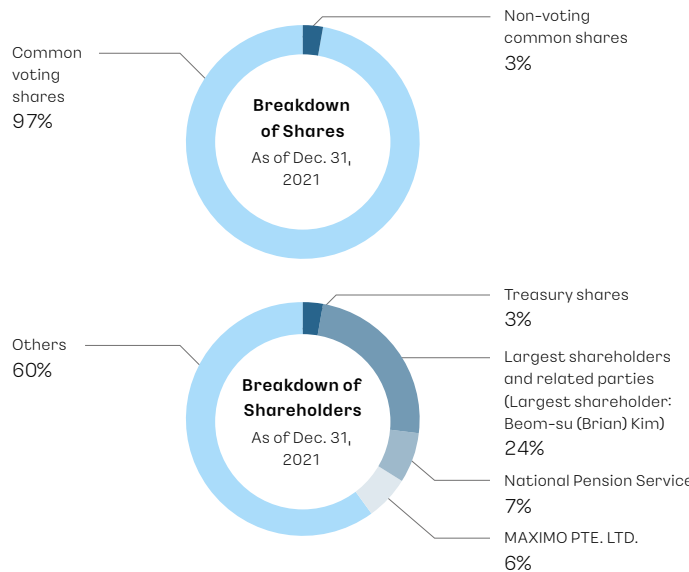
Kakao aims to build stable and reasonable governance that supports business transparency, increase shareholder value, and protect the rights of shareholders. To this end, we fully disclose governance-related work standards, procedures and results. Documents such as Articles of Incorporation, Corporate Governance Charter, Board of Director (BOD) activities are also made widely available.

### <Decision-making System at Kakao>



## Stock and Capital Structure

Kakao follows the One Share One Vote principle. As of December 31, 2021, there were 445,905,990 common shares carrying voting rights as well as 12,139,090 treasury shares that have no voting rights in conformity with commercial law.



## Establishing a Mid/long-term Shareholder Return Policy

In February 2022, we announced our first mid/long-term three-year shareholder return policy. This policy aims to allocate 15~30% of our non-consolidated free cash flow generated from KakaoTalk platforms to shareholders over the next three years: 5% will go to make cash dividend payments and another 10-25% will be used to repurchase and retire treasury shares. We plan to maintain a minimum level of dividend per share and make additional dividend payments in proportion to our corporate growth for the next three years. In 2022, our share buyback will amount to KRW 300 billion in total, combining retired shares based on our shareholder return policy and retired shares under our special buyback plan.

## Shareholder-friendly Policy

We implement electronic voting and proxy solicitation for our

shareholders to exercise their voting rights without physically attending the annual general meeting of shareholders. Since 2017, when setting the meeting date, we have been avoiding the period when such meetings are concentrated as published by the Korea Listed Companies Association. We also joined the association's compliance program since 2018 to promote equal distribution of annual general shareholder meetings.

## Establishing Regulations Governing Community Executives Selling Stocks and a Preliminary Risk Review Process

Executives of Kakao affiliated companies are prohibited from selling their company shares, including stock options, for one year following their listing. The one-year lock-up period starts from the date of submitting the securities registration statement and the IPO, and the bar is raised to two years for CEOs. Executives are also banned from collectively selling their shares. Executives of listed Community members wishing to sell their shares are obligated to give one month's prior notice on the number of shares and the timing of sales to the CAC (Corporate Alignment Center) and their company. These regulations equally apply to executives who resign from their current company and relocate to another affiliated company.

## Receiving the Grand Prize at the 2021 Korea IR Awards

For two consecutive years, Kakao has been recognized by the Korea IR Awards for contributing to the benefits of shareholders and investors. We were especially given high scores in the areas of shareholder communication and transparent disclosure of information.

## Gaining Recognition from the Korea Exchange for Outstanding Performance in Making English Disclosures

We were named an excellent company in making English disclosures by the Korea Exchange for three consecutive years. In 2021, we made 73 English disclosures, and are operating an internal system to help resolve the information asymmetries that exist between domestic and overseas investors.

### BOD Composition

As stated in the Corporate Governance Charter, Kakao will ensure the expertise, independence and diversity of its Board of Directors to establish sound governance.

### Independence and Efficiency of the BOD

As of March 31, 2022, Kakao's Board of Directors (BOD) consisted of seven directors, with four of them being independent directors (57% of total). This exceeds the majority requirement stipulated in commercial law concerning the ratio of independent directors and demonstrates the independence of our BOD. Our Directors Nominating Committee regulations specify the criteria to evaluate the independence and transparency of directors in accordance with domestic commercial law, fair trade law and other applicable regulations. We comprehensively factor the expertise, diversity and independence of the BOD in the director nomination process. The BOD chairmanship is assumed by one of the inside directors, excluding the CEO. The BOD also ensures its independence from top management and controlling shareholders.

Independent directors should not have significant interest in Kakao. As part of the appointment process, our independent directors are mandated to prepare documents confirming their understanding of and compliance with our independent director qualifications, and submit data on other corporate positions they are currently holding outside Kakao as well as their stock ownership in writing. We transparently disclose data on our independent directors through corporate governance reports- their previous positions at Kakao and its affiliated companies, transactions entered into between independent directors (or companies where independent directors are the largest shareholder) and Kakao and its affiliated companies, and transactions entered into between companies hiring our independent directors as employees and Kakao and its affiliated companies. Furthermore, independent directors are prohibited from holding more than two positions in conformity with applicable laws to ensure they faithfully fulfill their role at the BOD. In case any of our independent

directors serves as an executive at companies other than Kakao, this should be approved by the BOD according to Article 10-(1) 4@ of the BOD Regulations.

#### <Disqualification Standards Governing Independence>

- Directors, executive members and employees engaging in commercial matters of the company or directors, auditors, executive members and employees who engaged in commercial matters of the company for the recent two years
- Largest shareholder, his/her spouse and/or direct ascendants and descendants
- If the largest shareholder is a corporation, directors, auditors, executive members and employees of the corporation
- Spouses and direct ascendants and descendants of directors, auditors and executive members
- Directors, auditors, executive members and employees of the company or its subsidiaries
- Directors, auditors, executive members and employees of a corporation which has major interest in the company including business relationships
- Directors, auditors, executive members and employees at companies other than Kakao where Kakao's directors, executive members and employees serve as directors and executive members

1) Standards used to determine independence as specified in the Directors Nominating Committee regulations in conformity with Korea's commercial law, fair trade law and other applicable laws

### Diversity and Expertise of Directors

Our Corporate Governance Charter endorses the 'diversity principle' in the composition of the BOD to ensure that the expertise areas of directors do not overlap and that directors do not represent specific interests. The Directors Nominating Committee regulations also specify that the nomination of director candidates should factor in the expertise and diversity of the BOD in terms of gender, age, religion, nationality, race, ethnicity and cultural backgrounds among others. In reflection of the rapidly-shifting trends and internal/external business conditions in the IT and internet industries, we ensure our BOD consists of diverse, professional, responsible and competent directors so that the BOD, as our highest decision-making body, engages in making important decisions with sufficient competitiveness and accountability. As of March 31, 2022, all four independent directors were experts in their field — finance, media and technology — and their diverse backgrounds and expertise contribute to facilitating high-quality discussions on the agenda items submitted to the BOD and efficiently monitoring the work of senior management. There are two female independent directors (29% of total) and this helps improve the gender diversity of our BOD.

### Independent Director and Audit Committee Member Appointment Process

Our directors are appointed through the Annual General Meeting of Shareholders, and director candidates are nominated to the Meeting following the in-depth reviews performed by the BOD (inside director candidates) and the Directors Nominating Committee(independent directors candidates). The Directors Nominating Committee is primarily mandated as stipulated in its regulations to nominate independent director candidates and preliminarily review the qualifications of inside director candidates. The Committee has established internal review standards and conducts thorough reviews on director candidates in accordance with Article 9-2 of its regulations and on Audit Committee member candidates in accordance with Article 9-3 of its regulations.

#### <Independent Director Appointment Process>



#### <Independent Director and Audit Committee Member Nomination Criteria>

| Independent Director  |
|---|
| <p><b>Article 9-2 of the Directors Nominating Committee regulations</b></p> <ol style="list-style-type: none"> <li>1. Expertise and diversity of the BOD (gender, age, religion, nationality, race, ethnicity, cultural backgrounds and other diversity factors)</li> <li>2. Independence of BOD operations</li> <li>3. Possible damage to corporate value or shareholder rights and interests (rulings issued on embezzlement or malpractice for the past 5 years, liabilities concerning the decrease of corporate value or the violation of shareholder rights and interests)</li> <li>4. Compliance with qualifications set out in Article 382 and Article 542-8 of the Commercial Law and other applicable laws</li> </ol> |
| Audit Committee Member  |
| <p><b>Article 9-3 of the Directors Nominating Committee regulations</b></p> <ol style="list-style-type: none"> <li>1. Consideration of provisions stipulated in applicable laws (Article 542-11 and 542-12 of the Commercial Law)</li> </ol>  |

<BOD Composition>

As of Mar. 29, 2022

| Director             | Name          | Gender | Tenure                  | Career   | Expertise                   | Responsibility   |
|----------------------|---------------|--------|-------------------------|--|-----------------------------|--|
| Inside Director      | Whon Namkoong | Male   | Mar. 2022-<br>Mar. 2024 | <ul style="list-style-type: none"> <li>· Business Administration, Sogang University</li> <li>· CEO, CJ Internet</li> <li>· Representative, CJ E&amp;M Game Division</li> <li>· CEO, WeMade</li> <li>· Independent CEO, Kakao Games</li> <li>· Head of the Kakao Future Initiative Center</li> <li>· (Current) CEO, Kakao</li> </ul>  | General business management | CEO  |
| Inside Director      | Sung-su Kim   | Male   | Mar. 2022-<br>Mar. 2024 | <ul style="list-style-type: none"> <li>· French Language and Literature, Korea University</li> <li>· Master of Journalism and Broadcasting, Korea University</li> <li>· CEO, CJ E&amp;M</li> <li>· CEO, Kakao M</li> <li>· (Current) Co-CEO, Kakao Entertainment</li> <li>· (Current) Co-head, Kakao Corporate Alignment Center</li> </ul>   | General management strategy | Chairman of the Bod, Member of the Directors Nominating Committee  |
| Inside Director      | Euntaek Hong  | Male   | Mar. 2022-<br>Mar. 2024 | <ul style="list-style-type: none"> <li>· Oriental History, Seoul National University</li> <li>· Chief Business Officer, Kakao</li> <li>· Executive Vice President, Kakao Social Impact</li> <li>· CEO, Kakao Makers</li> <li>· CEO, Kakao Commerce</li> <li>· (Current) Co-head, Kakao Corporate Alignment Center</li> <li>· (Current) Head of ESG, Kakao</li> </ul>   | General management strategy | Member of the ESG Committee  |
| Independent Director | KyuJin Cho    | Male   | Mar. 2017-<br>Mar. 2023 | <ul style="list-style-type: none"> <li>· Ph.D of Mechanical Engineering, MIT</li> <li>· MIT(Post-Doc.)</li> <li>· Harvard Microrobotics Lab(Post-Doc.)</li> <li>· Professor, Seoul National University</li> <li>· (Current) Professor, Department of Mechanical &amp; Aerospace Engineering, Seoul National University</li> <li>· (Current) Director, Institute of Control, Robotics and Systems, Seoul National University</li> </ul>   | Robotics research           | Chair of the Compensation Committee, Member of the Audit Committee, Member of the Directors Nominating Committee |
| Independent Director | Seok Yun      | Male   | Mar. 2020-<br>Mar. 2023 | <ul style="list-style-type: none"> <li>· Business Management, Yonsei University</li> <li>· MBA, NYU</li> <li>· Managing Director, head of equity research, Credit Suisse Korea</li> <li>· Managing Director, head of wholesale business/head of research, Samsung Securities</li> <li>· CIO (Executive Vice President), Samsung Asset Management</li> <li>· CEO, Samsung Active Asset Management</li> <li>· Advisor, Samsung Active Asset Management</li> <li>· (Current) CEO, Yun &amp; Co</li> </ul>   | Finance and accounting      | Chair of the Audit Committee, Member of the Compensation Committee   |
| Independent Director | Sejung Choi   | Female | Mar. 2020-<br>Mar. 2023 | <ul style="list-style-type: none"> <li>· Ph.D in Mass Media (Advertising), Michigan State University</li> <li>· Assistant Professor/Associate Professor, Department of Advertising, University of Texas at Austin</li> <li>· Vice President, Korea Advertising Society</li> <li>· Outside director, JTBC Mediacom</li> <li>· (Current) Professor, School of Media and Communication, Korea University</li> <li>· (Current) Chair, Korea Media Management Association</li> <li>· (Current) Editor-in-chief, Korean Journal of Advertising and Public Relations</li> </ul> | Media and advertising       | Chair of the Directors Nominating Committee, Chair of the ESG Committee, Member of the Audit Committee           |
| Independent Director | Saerom Park   | Female | Mar. 2020-<br>Mar. 2023 | <ul style="list-style-type: none"> <li>· Doctor of Science in Industrial Engineering, Seoul National University</li> <li>· Researcher, Industrial and Mathematical Data Analytics Research Center, Seoul National University</li> <li>· (Current) Assistant Professor of Department of Convergence Security Engineering, Sungshin Women's University</li> </ul>  | AI security                 | Member of the Compensation Committee, Member of the ESG Committee  |

## BOD and Committee Operation

We will promote the efficient and reasonable operation of the BOD and its committees to make the best possible management decisions and serve the interests of Kakao and our shareholders.

### BOD Operation

As the BOD Regulations stipulate, our BOD meets regularly every quarter and holds ad-hoc meetings whenever deemed necessary. Decisions are made by the BOD with a majority of the directors present and a majority of the attending directors voting for or against, unless otherwise stated in applicable laws and regulations. Our BOD Regulations and committee regulations are subject to periodic annual reviews to continuously make necessary improvements with the view to promote the efficient and reasonable operation of the BOD. To assist independent directors in making decisions, we ensure they have access to support from outside experts when necessary as specified in the BOD Regulations.

#### <BOD Operation in 2021>

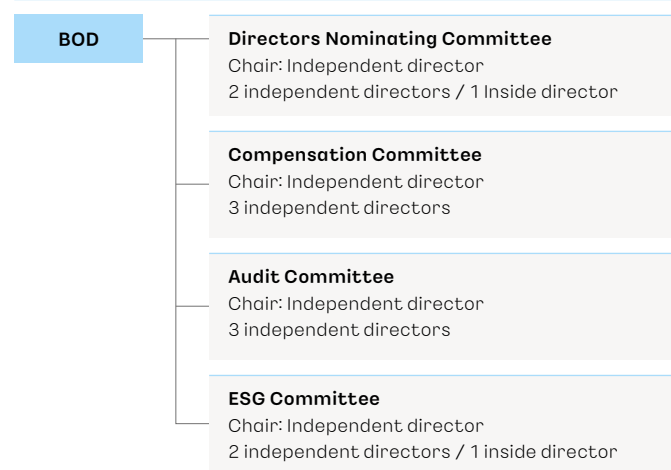
- Regular meeting: 4 times
- Ad-hoc meeting: 13 times
- Director attendance: 100% for all inside and independent directors
- Major agenda items: 45 decision items and 14 information items including approval of the split-merger agreement and granting of stock options

### BOD Committees

Under the BOD, there are four committees of the Directors Nominating Committee, the Compensation Committee, the Audit Committee and the ESG Committee to aid in the efficient operation of the BOD. Independent directors account for a majority of all these four committees. The Directors Nominating Committee, the Compensation Committee and the Audit Committee are chaired by independent directors to enhance their independence and mandate to oversee management. Specifically, the Audit Committee and the Compensation Committee are solely composed of independent directors to ensure their independent decision-making as expert committees.

#### <Committee Composition>

As of Mar. 29, 2022



### Creation of the ESG Committee

In January 2021, the ESG (Environmental, Social, Governance) Committee was created under the BOD in accordance with the decision made at the BOD. The Committee is responsible for examining the strategic direction of our ESG management and for managing and overseeing relevant achievements and issues to perform final reviews and grant approval on the annual 'Kakao Commitment and Responsibility Report'. Besides, the Committee presents non-financial issues and countermeasures concerning the environment and society, non-financial risk review outcomes, domestic and international ESG evaluation outcomes, and issues in need of support for ESG capacity building and internalization.

### BOD Performance Assessment

#### BOD and Committee Assessment

We are building a performance assessment system for our BOD and directors to improve their operational efficiency. We conduct periodic annual self-assessments and results are analyzed by the Compensation Committee to provide mutual feedback on the performance of the BOD and its committees. In February 2022, a self-assessment checklist was used to evaluate the BOD and the Audit Committee, with all directors participating. Feedback generated as a result of BOD assessments lead to improvements in operational efficiency. In 2021, independent directors received education on ESG risks at the request for such education.

### Management Performance Review

In reviewing the performance of management including the CEO, their contribution to our financial performance and attainment of strategic goals, the growth of corporate value, and internal/external conditions are comprehensively considered. The results of such reviews made annually are reflected in determining management's compensation.

### Director Remuneration

The remuneration limit of directors including the CEO is set through the decisions made at the annual general meeting of shareholders, and directors receive their compensation and severance pay through the Compensation Committee according to regulations. Compensation for inside directors consists of base pay and bonuses: the former is calculated based on their position's value and individual competencies, and the latter is determined by considering their contribution to business performance. Besides, benefits are provided to improve welfare, and stock options are granted as approved by the annual general meeting of shareholders. Our independent directors receive base pay only without other additional compensation. Compensation for individual directors and auditors that exceeds the KRW 500 million threshold is disclosed through our business reports to transparently share details on director compensation.

#### <Director Compensation in 2021>

Unit: KRW million

| Director  | No. of Directors | Total Compensation | Average Compensation per Person |
|---|------------------|--------------------|---------------------------------|
| Registered Director<br>(excluding independent directors and members of the Audit Committee) | 3                | 8,336              | 2,779                           |
| Independent Director<br>(excluding members of the Audit Committee)                          | 1                | 48                 | 48                              |
| Audit Committee Member  | 3                | 144                | 48                              |

# Risk Management

The diversification of business conditions and sociocultural factors that surround the IT industry gives rise to increasing expectations for companies to better manage their risks. We are advancing our risk management regulations and establishing a year-round risk management system to ensure the integrated and holistic management of risks. Our risk management regulations define an internal process to efficiently review and respond to financial and non-financial risks that may arise across our business operations.

## Risk Management System

We have established risk management regulations and a company-wide risk monitoring and response system to preemptively address risks and bolster their follow-up management, and systematically manages risks according to these regulations.

### Implementation Organization

Our Board of Directors (BOD), the ESG Committee and the Audit Committee are responsible for integrated risk management, and we appointed Officer in Charge of Risk Management in charge of our overall risk management. The Compliance Management division and the Finance Group respond to non-financial and financial risks respectively. The Officer in Charge of Risk Management is mandated to review risk management status, analyze the impact on our business, and report major issues and analysis results to the ESG Committee, the Audit Committee or the BOD. To advance risk management, we will supplement and reinforce the risk management function of the BOD and the ESG Committee while realigning the Risk Management TF and other organizations supporting the Risk Management Committee.

#### <Risk Management Organization by Function>

|   |   |
|---|---|
| <b>BOD<br/>(Board of Directors)</b>         | <ul style="list-style-type: none"> <li>Lead the management of financial and non-financial risks</li> <li>Review and oversee potential risks and develop policies</li> </ul>   |
| <b>ESG Committee</b>                        | <ul style="list-style-type: none"> <li>Lead the management of non-financial risks</li> <li>Delegated by the BOD to make decisions on non-financial risks</li> </ul>   |
| <b>Audit Committee</b>                      | <ul style="list-style-type: none"> <li>Lead the management of financial risks</li> <li>Delegated by the BOD to make decisions on financial risks</li> </ul>   |
| <b>Officer in Charge of Risk Management</b> | <ul style="list-style-type: none"> <li>Assist the BOD and the ESG Committee and report major issues to the BOD</li> <li>Serve as the general manager of company-wide risk operations</li> <li>Manage the effective implementation of the risk management master plan</li> </ul> |
| <b>Primarily Responsible Department</b>     | <ul style="list-style-type: none"> <li>Ensure risk-based business support and management</li> </ul>   |

## Risk Management Process

To advance our risk management, we have institutionalized Risk Management Committee and its supporting organization, detailed operational procedures and a BOD reporting system. In line with risk management regulations, the BOD, the ESG Committee and the Audit Committee analyze the impact of potential losses that may occur due to changing internal/external conditions in relation to current or unexpected risks while implementing separate risk management plans to address risks through proper responses, with the Officer in Charge of Risk Management supporting this process every step of the way. Our risk management plans include stress tests and phased contingency plans. We also review and manage financial and non-financial risks in the technology development and service planning/operation phases through relevant departments. For risks that occur on a random basis in relation to technology and services, we operate a system to immediately share such risks upon their identification among the entire Krew as well as the dedicated risk management organization.

#### <Basic Principles of Risk Management>

- We manage risks with a balanced emphasis on both short-term and mid- to long-term perspectives.
- We efficiently use resources by appropriately distributing risks and setting our risk appetite.
- We advance risk management on the company-wide level and take preemptive action even from the business planning phase.
- We ensure that risks are thoroughly reviewed and managed by responsible and supervising departments across the entire process of technology development and service planning/operation.
- We operate a system to share and identify risks that occur on a random basis among the entire Krew as well as Primarily Responsible and Responsible Department.

[Link to Risk Management Regulations](#)

## Disseminating a Culture of Risk Management

At Kakao, risks, upon their identification, are instantly shared among responsible organizations, and cross-sectoral risks are efficiently addressed through our collaboration system that engages experts from relevant teams. For instance, committees that have expertise in specific fields are organized such as the Media Advisory Committee to develop risk mitigation measures.

### ESG Risk Training for Independent Directors

In December 2021, we provided ESG risk training once for the BOD as our highest decision-making body for company-wide risk management and for independent directors. The training focused on the topic of ESG leading the paradigm shift in business conduct (BOD's understanding of ESG risk management), and this served for independent directors to strengthen their ESG management capacity and make informed risk management decisions.

### Defining and Responding to Risks

We define risks as potential losses or disadvantages to corporate value that are caused by all types of uncertainties that may occur in the course of business conduct, and classify risks into financial and non-financial risks. Financial risks concern interest rates, liquidity, credit, F/X, capital, financial reporting, internal accounting controls, taxes, and any other issues that may arise in relation to a company's financial conditions, financial information reporting system and tax policy. Non-financial risks include compliance, corporate/technology/service ethics, workforce, climate change and environmental risks that could occur in business operations.



## &lt;Definition and Response to Major Risks&gt;

| Type of Risk       | Risk   | Definition   | Our Response  | Relevant Department                                     |
|--------------------|--|--|---|---|
| Non-financial risk | Technology ethics                              | · AI, cloud, blockchain and other emerging technologies not only provide varying benefits but also bring adverse effects and a range of risks with them.   | · Provide training on the need for ethical compliance in algorithm outputs<br>· Predict and prevent potential adverse impact from the planning phase<br>· Continuously identify unethical behaviors in the operational phase  | Information Protection Commission                       |
|                    | User protection                                | · Technical defects and other risks may cause inconvenience for users in their service use and infringe upon users' rights.  | · Continue to review and improve the user protection policy<br>· Recognize the need for rights protection from the user perspective<br>· Operate channels to report the infringement of rights  | User Service & Insight Team                             |
|                    | Privacy  | · User information collected through service offerings inherently entails privacy infringement risks, and any violation of applicable laws may lead to sanctions imposed on the concerned services.  | · Monitor the status of privacy breaches on an on-going basis<br>· Conduct personal data impact assessments prior to service launching and periodically review data privacy performance following service launching<br>· Give prior notice in relation to user data when changing a service   | Privacy Office  |
|                    | Policy and regulation                          | · Policy and regulatory changes impact the competitiveness of our existing business and could hamper our stable advancement into new business areas.   | · Strengthen capacity to preemptively recognize changes in domestic/international regulations and policies<br>· Build a corporate culture to set the social trend through preemptive response prior to regulatory enactment   | Policy Team, Government Relations & Policy Affairs Team |
|                    | Compliance                                     | · Direct/indirect financial responsibility, civil or criminal disadvantages, sanctions by regulatory authorities, or adverse impact on the organization or its employees may occur.  | · Perform advance reviews and grant approval on transactions entered into among affiliates<br>· Introduce internal compliance programs through company-wide compliance training   | Compliance Team   |
|                    | Information security                           | · Abusing activities that disrupt normal service operations, malicious hacker attacks against systems and other information security issues are always present.  | · Review security performance in the service and infrastructure sectors on an on-going basis<br>· Prevent risks through security assessments made on source codes, operational tools, services and systems<br>· Strengthen internal capabilities in preparation for the evolving means of attack and the increasing size and frequency of attacks | Information Security Team                               |
|                    | Ethics   | · Unethical behaviors of Krew or partners that occur in the course of business conduct expose us to operational and reputational risks.  | · Raise ethical awareness including Krew training which highlights the importance of personal ethics from the company-wide risk aspect<br>· Request partners to comply with ethical management principles and support their ethical management  | Ethics Management Team, Shared Growth Team              |
|                    | Reputation                                     | · Poor business performance, social controversies caused, complaints raised and critical litigations could all create negative public sentiments and undermine our public reputation.  | · Distribute press releases to communicate accurate facts<br>· Respond to false information (request for correction)<br>· Identify publicity case studies to improve our corporate reputation   | Communication department                                |
|                    | CI (Corporate Identity)                        | · Unauthorized use of company names, brands, reputation or credit may lead to risks.   | · Distribute Kakao brand CI use guidelines<br>· Restrict the unauthorized use of our CI   | Marketing division                                      |
|                    | PI (Personal Identity)                         | · Social controversies could occur for executives, Krew and other members of the company, critical lawsuits could be raised in relation to work, and the sound growth of the Community could be inhibited.   | · Sanction violations in accordance with ethical and disciplinary regulations<br>· Operate the hotline for the whistleblowing of corruptive practices   | Ethical Management Team, Compliance Team                |
|                    | External conditions                            | · Infectious diseases, wars, terrorism and other unexpected changes in the external environment may cause disruption in our sustainable business operations.   | · Continue to monitor the external environment to cope with changing external conditions<br>· Develop internal guidelines and responses to address potential changes in the external environment  | Ad-hoc expert department (e.g.: COVID-19 response TF)   |
|                    | Human rights                                   | · Violation of human dignity, value, freedom, and rights guaranteed by the constitution or laws or recognized internationally results in human rights risks.   | · Operate a dedicated organization to address sexual harassment<br>· Operate a dedicated organization to respond to workplace harassment<br>· Recommend to reconsider whether to continue to do business with partners suspected of human rights violation  | Ethics Management Team                                  |
|                    | Climate change and environment                 | · Risks may occur in the process of responding to a range of environmental challenges, including actual or potential environmental pollution and degradation and climate crisis caused by climate change, and its resulting policy and regulatory changes. | · Launch green digital campaigns<br>· Achieve the ISO 14001 environmental management system certification<br>· Collaborate to distribute EVs<br>· Launch Zero Waste products (Kakao Friends)<br>· Initiate the carbon neutral forest project (Kakao Makers)   | ESG business division, Environmental TF                 |
| Financial risk     | Currency rate/interest rate/capital/credit/tax | · Abrupt currency rate fluctuations, interest rate changes, capital risks, credit rating risks and tax risks all represent the instability of and dramatic volatility of the future market.  | · Constantly manage financial risk factors<br>· Make inquiries to tax authorities in advance for critical tax issues to proceed in line with authoritative interpretations  | Finance Group   |

## Emerging Risk

We ensure that we recognize emerging risks from the long-term viewpoint and analyze how such risks may impact our business to respond to them before they occur. Such efforts led us to identify emerging risks in relation to the need to make platform-level responses to digitally-underserved groups that are growing in line with demographic changes and the need to develop recommendation algorithms in a way to promote diverse content. If we do not preemptively discover and address these emerging risks, this could put us at a disadvantage in retaining current users and recruiting potential users, ultimately affecting our business operations. As such, we continue to respond to emerging risks and will closely monitor and preemptively address them.

### <Growth of Digitally-underserved Groups amid Changing Demographics>

#### Significance of the emerging risk

Any failure to carefully consider technology accessibility for digitally-underserved groups that are increasing in line with aging society may prevent us from securing opportunities to recruit senior platform service users.

#### Our response

- Operated the dedicated Corporate Digital Responsibility department and newly appointed the DAO
- Initiated a route instruction service for mobility-challenged individuals through Kakao Map
- Achieved the Web Accessibility certification for Kakao's official website
- Improved digital accessibility and literacy

### <Ethical Risks of AI Service Algorithms>

#### Significance of this emerging risk

As AI-based services are on the constant rise, this highlights the need to improve service satisfaction among long-term users through preemptive response so that user content recommendation algorithms are not biased and secure diversity.

#### Our response

- Operated the Privacy Policy Advisory Committee
- Developed and operated AI ethics training courses for all Krew members in 2021
- Amended the Algorithm Ethics in 2021

## Tax Risk Management Policy

We stipulated our tax policy in March 2022 and have since been operating this policy to grow our business as a way to contribute to our society and economy and fulfill our regulatory obligations in faithfully filing and paying taxes. We strictly comply with Korea's tax laws and the tax agreements signed in countries where we have interests, and aim to contribute to national finance through accurate tax filings and honest tax payments. We fully cooperate in the implementation of the tax policies of countries where we are based, and maintain transparent working relationships with tax authorities. In particular, we regularly provide tax-related information to internal and external stakeholders through our business reports to improve the transparency of our tax operations.

### <Kakao's Tax Policy>

- Comply with country-specific tax laws
- Respond to tax risks through preliminary reviews
- Comply with transfer pricing regulations in related party transactions
- Fully disclose tax information
- Manage global tax risks through BEPS reporting

### [Link to Kakao's tax policy](#)

## Tax Risk Management Process

To preemptively manage tax risks, we regularly receive advice from external tax experts on our management of tax issues. For highly critical tax issues, we submit preliminary questions to tax authorities and handle such issues based on authoritative interpretations in addition to external advice. In making transactions with the Kakao Community (related parties), we engage in close consultations with the Community as a transaction party and seek advice from external experts to ensure fair pricing as stipulated by tax laws.

# Ethical Management

Kakao advances ethical management to pursue the highest-possible level of integrity in all its actions taken and its relationships established with internal and external stakeholders.

## Ethical Management System

Kakao and its Community puts ethical management above all else in business operations. To this end, we have stipulated the Code of Ethics for all Kakao Krew to follow while preventing, reviewing and remedying any and all actions that run counter to the Code of Ethics to pursue integrity and maintain trust-based relationships with stakeholders.

### Code of Ethics

Kakao set out the Code of Ethics that defines principles for all Kakao Krew to adhere to, and complies with the Code in its entire business operations to ensure that its corporate values are not undermined and any seemingly suspicious situations concerning ethics do not occur. Provisions contained within the Code of Ethics are based on the generally applicable laws in society, and a portion of them even go beyond the realm of our legal responsibility. This Code of Ethics was first stipulated in 2019 and could be subject to amendment in line with changes in business conditions and social norms. Since 2021, we have had all our employees sign the pledge to fully abide by the Code of Ethics as Kakao Krew.

### <Kakao's Code of Ethics>

- Chapter 1 General Provisions
- Chapter 2 Attitude of the Krew
- Chapter 3 Responsibility towards Customers
- Chapter 4 Responsibility towards the Krew
- Chapter 5 Responsibility towards Shareholders
- Chapter 6 Relationship with Business Partners
- Chapter 7 Responsibility towards Society
- Chapter 8 Reporting and Informant Protection

[Link to Kakao's Code of Ethics](#)

## Implementation Organization

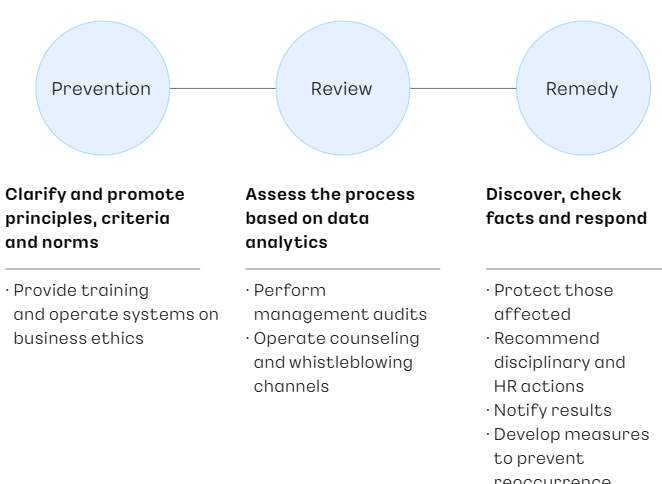
We operate the Standing Ethics Committee as the top governance body for ethical management, and under the Committee is the Ethics Management Team which serves as

a working-level ethics team. The Committee is chaired by either the CEO appointed as a member or a member designated by the CEO and delegated and authorized accordingly. The Committee deliberates on ethics issues in general, makes decisions based on deliberation outcomes and on other relevant actions taken, and reports the decisions made to the BOD once a year. The Committee ensures the balanced representation of its members in consideration of position, gender, and age, and is operated fairly by making decisions on all agenda items through discussions and secret votes. In 2022, the Committee regulations were amended to add two more members to reflect the growth of our Krew workforce and to ensure diversity and objectivity in the Committee's deliberation and decision operations.

### Implementation Process

The Ethics Management Team as a working-level team undertakes prevention, review and remedy activities with respect to ethical management. In case any member of the Community which has not yet fully established its ethical management system requests assistance, the Team aids in the verification of related factual grounds.

### <Ethical Management Implementation Process>



## Bolstering the Governance of Community Ethical Management

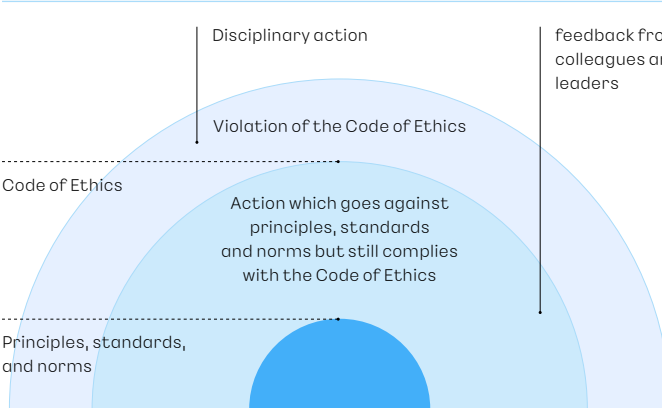
Kakao ensures that its affiliates adhere to an equal level of standards in advancing ethical management and establishing work processes. To bolster the ethics management governance of affiliates who pledge themselves to the ethical management governance agreement, we assist respective affiliates in institutionalizing their own ethics committee and developing processes and guides necessary for ethical management operations.

[Link to Community members who signed the ethical management governance agreement](#)

### <Core Values of Ethical Management Implementation>

- The Kakao Community advances ethical management to pursue the highest level of integrity in all its actions taken and all its relationships established with internal and external stakeholders.
- The Kakao Community prevents, reviews and remedies any and all actions that violate the Code of Ethics.
- When the Code of Ethics is violated in spite of its best efforts, the Kakao Community immediately takes appropriate action.

### <Core Values of Ethical Management Implementation>



**<Major Ethical Management Activities Undertaken by the Kakao Community in 2021>**

Kakao Entertainment opened the Online Ethics Center and 'Ethics Counseling Open Talk' which provides anonymous real-time counseling to maintain an around-the-clock monitoring system to address ethical issues. While the company previously distributed the ethical management pledge to new hires, this was extended to all Krew members on an annual basis from 2022 onwards, and will be accompanied by campaigns to improve work methods.

Kakao Pay had all its Krew sign the '2021 pledge for regulatory compliance and compliance with the Code of Ethics' under the supervision of its Compliance Team. In 2022, Kakao Pay created an audit team under the Audit Committee to bolster its internal control oversight and ethical management.

Kakao Games provides its Krew with training on non-compliance with ethics that occurs in the games industry, and disseminates a culture of integrity by distributing the integrity pledge among Krew once a year. Kakao Games operates the cyber ethics whistleblowing center and an anonymous one-on-one grievance counseling channel (Ashley's Talk Terrace) to monitor non-compliance with ethics and take appropriate action.

Kakao Investment held a briefing on its Ethics Committee-related process and the Code of Ethics, and included ethics-related whistleblowing and disciplinary processes in its annual compulsory internal training to raise Krew's awareness in this regard.

Kakao Enterprise provides company-wide ethics training and even conducts ethical standards and case-based training for group leaders. Additionally, our onboarding program sessions for new hires emphasize in-house ethical standards and processes. In 2022, the company plans to establish a compliance organization under the Compliance Management division to prevent ethical violations in advance.

**Ethics Training for New Hires**

New recruits are provided with monthly ethics training under our onboarding program. Training topics include understanding Kakao's Code of Ethics as well as sharing and disseminating the violation cases of the Code. In 2021, ethics training was provided to 1,101 new hires and all of them completed the training.

**Ethics Training for the Entire Krew**

Since 2021, we have provided all our Krew, including full-time employees, contract workers and fixed-term workers, with training on AI Algorithms Ethics and our ethical management principles to embed ethical management into our business operations. Our ethical management training provided in Q1 of 2021 touched on the topics of understanding the concept of ethical management and Kakao's ethical management, human rights sensitivity, and the prevention of human rights violations. Out of 2,640 Krew members subject to ethical management training, 2,634 members completed their training.

As of 2021

|   |  |
|---|--|
| <b>Completion of ethics training by new hires</b><br>(Completed by 1,101 persons) | <b>Completion of ethics training among the entire Krew</b><br>(Completed by 2,634 persons) |
| 100%  | 99.8%  |

**Internal and External Counseling/Whistleblowing and Whistleblower Protection**

Our Online Ethics Center serves as a channel for external stakeholders to receive counseling or report concerns on unethical or corrupt practices involving employees at Kakao and other affiliated companies, including but not limited to unfair actions taken, unjustifiable requests such as bribery and entertainment, improper use or misuse of corporate assets, illegal investments in suppliers, leaks of confidential information, and document/data fabrication. In 2021, we specified the principles of confidentiality and identity protection for whistleblowers through the Online Ethics Center. The identity of whistleblowers and details of counseling they receive remain strictly confidential in accordance with applicable laws and internal regulations. Any action to inquire about the identity of whistleblowers or to potentially expose their identity is prohibited, and a mere attempt to

do so could trigger deliberations on disciplinary action. In addition, we ensure that the act of whistleblowing, making statements or reporting does not result in any disadvantage, and when whistleblowers ask for identity protection, the Ethics Management Team may take necessary actions including legal support and relocation in consultation with the heads of HR and legal affairs departments. We also operate TellMe@Kakao as our intranet whistleblowing mechanism available exclusively for our Krew: any Krew member can report the violation of the Code of Ethics that they witnessed anonymously and/or under their true name, and receive counseling in relation to such violations. In 2021, we received a total of 25 cases of counseling and whistleblowing through our internal/external counseling and whistleblowing mechanisms, and actions were taken on all 11 cases of them that were verified as a result of investigations.

[🔗 Link to our online whistleblowing mechanism](#)

[🔗 Link to our e-mail whistleblowing mechanism](#)

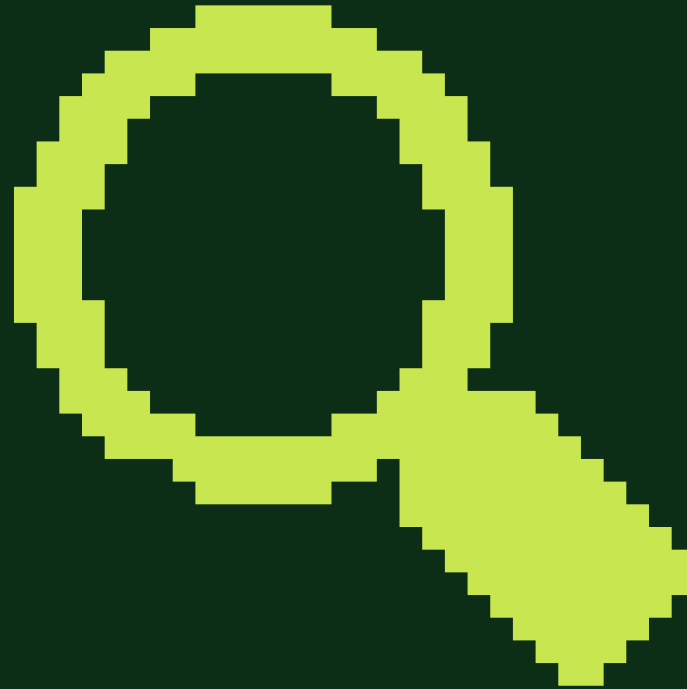
**Operating the Gift Return Center**

Kakao Krew and their families are prohibited from receiving any bribes or entertainment that may give rise to conflict of interest. In principle, any gifts or bribes that are provided should be immediately returned. Gifts that have been received must be turned in to our gift return center and then are handled in accordance with the set procedures.

**Sponsorship for Associations and Organizations**

Article 31 of Korea's Political Funds Act specifies that foreigners and domestic/overseas corporations or organizations are prohibited from making political donations and that no one may do so by using funds that are associated with domestic/overseas corporations or organizations. Kakao fully abides by applicable laws and does not provide any political funds, voting-related election funds, or funds for lobbying political organizations. We sponsor, however, politically neutral general and trade associations that serve the public interest.

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## Part 4

# Appendix



## About the Kakao Community

### kakao

ENTERTAINMENT

**Kakao Entertainment** CEO: Sungsu Kim, Jinsoo Lee | Establishment: Jul. 2010

'Kakao Entertainment,' launched through the merger of KakaoPage Kakao M and Melon, has a unique business portfolio that encompasses all verticals of the entertainment industry. This includes a specialized value chain optimized to produce original contents such as webtoons and web novels, a vast global platform network and unrivaled expertise in creating music, TV series, films, performances. By transcending borders, generations and languages, Kakao Entertainment aims to be a disruptor in the global entertainment industry and encapsulates the company's spirit of "Entertain Different."

<https://kakaotent.com>

### kakaopay

**Kakao Pay** CEO: Won-geun Shin | Establishment: Apr. 2017

As Korea's first to offer easy payment services, Kakao Pay has emerged as a tech-fin business by extending its scope of services into money transfer, billing, membership, investment, loan and insurance, unveiling new financial services that bring benefits to the daily lives of users while eliminating the inconveniences inherent in existing financial activities on the strength of information technology. Kakao Pay seeks to create a financial platform that can be easily and safely accessed through the KakaoTalk and Kakao Pay apps.

<https://www.kakaopay.com>

### kakaogames

**Kakao Games** CEO: Kye Hyun Cho | Establishment: Aug. 2013

As a total game service provider spanning from game development to global publishing on the unrivaled platforms of KakaoTalk and Daum Game, Kakao Games delivers an array of content created through the integration of VR and AR technologies as well as online and mobile games, greatly enriching the lives of countless users.

<https://www.kakaogamescorp.com>

### kakao mobility

**Kakao Mobility** CEO: Gung Seon Ryu | Establishment: May 2017

Under the goal of rendering mobility experiences 'faster and convenient' for all, Kakao Mobility provides a range of mobility services including taxis, parking, navigation, chauffeurs, e-bikes, trains and buses on the basis of its Kakao T MassS (Mobility as a Service) platform, to relentlessly pursue innovation and growth. Kakao Mobility is committed to promoting improved options and experiences in our daily lives, extending the definition of the mobility platform from people to services and things.

<https://www.kakaoenterprise.com>

### kakaobank

**Kakao Bank** CEO: Ho-young Yun | Establishment: Jan. 2016

Under the vision of 'Bank, Beyond Bank', Kakao Bank redefines finance through innovation delivered through the combination of finance and information technology. Its products and services include not only deposits, loans, debit cards, and cross-border remittance services, but also co-branded credit cards, loan referrals, my credit information, securities brokerage accounts and 'mini' accounts/cards.

<https://www.kakaobank.com>

### kakaopiccoma

**Kakao Piccoma** CEO: Jaeyong Kim | Establishment: Jul. 2011

As our local subsidiary in Japan, Kakao Piccoma is responsible for servicing the manga app 'Piccoma' in Japan while delivering the value of pleasures in the daily lives of all.

<https://www.kakaopiccoma.com>

### kakaoinvestment

**Kakao Investment** CEO: Kioh Kwon | Establishment: Apr. 2017

As a member of Kakao affiliated companies with investment expertise, Kakao Investment supports startups capable of pursuing innovation on the basis of Kakao's philosophy of 'making a better world with people and technology', and provides M&A, IPO and other exit opportunities to establish a virtuous cycle within the venture ecosystem.

<https://www.kakaoinvestment.com>

### kakaoenterprise

**Kakao Enterprise** CEO: Sang Yeop Baek | Establishment: Aug. 2019

Kakao Enterprise is a technology-focused enterprise IT company. It was spun off from Kakao to better leverage the AI and cloud platform essentials and comprehensive expertise in ready-to-deploy business services. As a leader of digital transformation, Kakao Enterprise keeps reimagining the industry and expanding the ecosystem with its customers and partners.

<https://www.kakaoenterprise.com>



**Krust Universe** CEO: Ji-ho Song | Establishment: Oct. 2018

Krust Universe, headquartered in Singapore, discovers, invests in and incubates global services with tremendous growth potential in Web 3 and blockchain domain. Krust Universe aims to support the growth of innovative services and contributes to the expansion of the global IT services market.

<https://krstuniverse.com>



**Ground X** CEO: Zooil Yang | Establishment: Mar. 2018

Ground X dreams of a world where anyone can be a creator of their own with their digital ownership. With a focus on the digital asset wallet service Klip and the digital art and NFT marketplace Klip Drops, Ground X delivers the safest and most reliable digital asset experience that can be embraced by anyone irrespective of generational or cultural differences.

<https://www.groundx.xyz>



**Kakao Ventures** CEO: Shina Chung | Establishment: Mar. 2012

As a dedicated investor in startups and as Kakao's venture capital affiliated company, Kakao Ventures has raised more than KRW 359.9 billion in investment resources since its inception through a total of nine investment associations to invest in over 200 startups.

<https://www.kakao.vc>



**Kakao Brain** CEO: Ildoo Kim | Establishment: Feb. 2017

Kakao Brain specializes in AI technology and was established to contribute to the development of Korea's AI technology ecosystem and secure Kakao's growth drivers. At the frontier of AI technology, Kakao Brain develops differentiated element technology, big models and digital humans to contribute to the high-tech community while exploring new service areas to improve the value in use and the quality of life.

<https://www.kakaobrain.com>



**KnWorks** CEO: Seok Cheol Shin, Jongwon Lee | Establishment: Feb. 2005

KnWorks is a professional operational service provider armed with extensive domain knowledge, competency across respective advanced functions, and years of experience and expertise. On the strength of the varying services available within the Kakao Community, KnWorks nurtures a sustainable mobile ecosystem.

<http://www.knworks.co.kr>



**dktechin** CEO: Won Joo Lee | Establishment: Aug. 2015

dktechin delivers end-to-end IT services spanning systemic consulting, system deployment and operation, and infrastructure through customized information system development while providing far-reaching ICT services in line with the accelerating digital transformation era in the areas of SAP ERP, AI chatbots, smart factory, smart construction, smart city and smart HACCP.

<https://www.dktechin.com>









**Linkage Lab** CEO: Daeyoung Park | Establishment: Feb. 2016

As Kakao's subsidiary and a standard site hiring people with disabilities, Linkage engages in wide-ranging work and creates greater opportunities through the connections made between those with disabilities and those without. Linkage Lab provides these individuals with a universally designed work environment to help them develop IT expertise and push their limits.

<https://www.linkagelab.co.kr>

# Stakeholder Communication

Kakao defines shareholders/investors, users, Krew, partners, communities and governments as its major stakeholder group who is directly/indirectly impacted in the course of its business conduct. We listen to the voice of stakeholders and proactively reflect it in our business operations to make a better world.

| Stakeholder  | Areas of Interest   | Communication Channel   | Our Response  |   |
|--|---|---|---|---|
| <br>Shareholder /investor | <ul style="list-style-type: none"> <li>Financial performance generation and dividend payout ratio</li> <li>Development of future growth drivers</li> <li>Preemptive risk management competency</li> <li>Transparent performance disclosure</li> <li>Sound governance</li> </ul> | <ul style="list-style-type: none"> <li>Corporate website</li> <li>Annual General Meeting of Shareholders</li> <li>NDR (Non-Deal Roadshow)</li> <li>Earnings conference call</li> </ul>  | <ul style="list-style-type: none"> <li>Analyst Day</li> <li>One-on-one meeting</li> <li>Shareholder engagement</li> <li>Disclosure materials</li> </ul>   | <ul style="list-style-type: none"> <li>Develop a mid/long-term shareholder return policy</li> <li>Establish the Corporate Governance Charter</li> <li>Ensure the integrated and systemic risk management by establishing risk management regulations</li> <li>Establish sustainability management governance by launching the ESG Committee</li> <li>Transparently disclose financial performance through disclosures</li> <li>Share business outcomes through diverse IR meetings</li> </ul> |
| <br>User                  | <ul style="list-style-type: none"> <li>New service launching</li> <li>User satisfaction improvement</li> <li>Service quality improvement</li> <li>Personal data protection</li> </ul>   | <ul style="list-style-type: none"> <li>Corporate website</li> <li>Counseling Talk within KakaoTalk</li> <li>Service-specific customer center (web/application)</li> </ul>   | <ul style="list-style-type: none"> <li>Emergency phone counseling and reporting center</li> <li>Customer center for in-person visits</li> <li>Disclosure materials</li> </ul>   | <ul style="list-style-type: none"> <li>Produce KakaoTalk Safety Guide</li> <li>Reinforce the user data protection system</li> <li>Operate a user protection system to protect them from the harmful internet environment</li> <li>Operate a user VOC handling process and manage user satisfaction</li> <li>Undertake activities to improve service accessibility and digital literacy</li> </ul>   |
| <br>Krew                  | <ul style="list-style-type: none"> <li>Support for individual growth</li> <li>Workplace human rights protection</li> <li>Fair and reasonable appraisal</li> <li>Work-life balance</li> <li>Benefits</li> </ul>  | <ul style="list-style-type: none"> <li>In-house portal</li> <li>Open Talk</li> <li>Agit</li> <li>TellMe@Kakao</li> <li>Counseling at Labor lab for Krew</li> </ul>  | <ul style="list-style-type: none"> <li>Roundtable grievance-handling member</li> <li>Time's Up</li> <li>Occupational Safety and Health Committee (quarterly)</li> <li>Kakao organizational health check (annual)</li> </ul> | <ul style="list-style-type: none"> <li>Improve HR systems in reflection of Krew's feedback</li> <li>Operate various grievance-handling mechanisms</li> <li>Support training for Krew's growth</li> <li>Implement fair appraisal and compensation systems</li> <li>Operate diverse benefits programs</li> <li>Create a safe and pleasant work environment</li> </ul>   |
| <br>Partner             | <ul style="list-style-type: none"> <li>Fair trade practices</li> <li>Provision of shared growth opportunities</li> <li>Training and infrastructure support</li> <li>Cooperation and communication</li> </ul>  | <ul style="list-style-type: none"> <li>Official shared growth web page</li> <li>e-Bidding system K-pick</li> <li>Online Ethics Center</li> <li>Purchasing briefing session</li> <li>Emoticon proposal website</li> <li>Tistory profit center</li> </ul> | <ul style="list-style-type: none"> <li>Partner's Day</li> <li>Kakao Class with Partners</li> <li>Dispute Settlement Committee</li> <li>Disclosure materials</li> <li>KakaoTalk Store seller training center</li> </ul>      | <ul style="list-style-type: none"> <li>Raise KRW 300 billion in win-win partnership funds for shared growth with partners</li> <li>Establish the Supplier Code of Conduct</li> <li>Comply with the fair trade principle</li> <li>Operate shared growth programs including the sharing of technology and knowledge</li> <li>Support small businesses with online sales opportunities</li> <li>Discover creators and open support platforms</li> </ul>  |
| <br>Community           | <ul style="list-style-type: none"> <li>Local economic development</li> <li>Corporate social responsibility</li> <li>Response to climate change</li> <li>Cooperation and communication</li> </ul>  | <ul style="list-style-type: none"> <li>Corporate website</li> <li>Kakao Together</li> <li>Kakao Class</li> <li>Dolharbang on the Internet of Kakao</li> </ul>   | <ul style="list-style-type: none"> <li>Jeju Data Hub</li> <li>Jeju with kakao</li> <li>Disclosure materials</li> </ul>  | <ul style="list-style-type: none"> <li>Support social activists</li> <li>Implement a range of community CSR activities through platforms</li> <li>Invest and cooperate for community development</li> <li>Establish community communication channels and facilitate their operation</li> </ul>  |
| <br>Government          | <ul style="list-style-type: none"> <li>Economic value generation</li> <li>Regulatory compliance</li> <li>Transparent tax practices</li> <li>Participation in major policy decisions</li> </ul>  | <ul style="list-style-type: none"> <li>Corporate website</li> <li>Public service support</li> <li>Disclosure materials</li> </ul>   |   | <ul style="list-style-type: none"> <li>Reinforce the compliance system</li> <li>Cooperate in responding to COVID-19 through platforms</li> <li>Create high quality jobs to contribute to employment</li> <li>Sincerely pay taxes</li> </ul>   |

# Materiality Assessment

Kakao performed materiality assessments to identify major issues that impact its sustainability against the international sustainability reporting standards (GRI Standards). We conduct such assessments regularly to identify and manage sustainability issues that are material to Kakao, and transparently share such issues with stakeholders through our Commitment and Responsibility Reports.

## Assessment Process

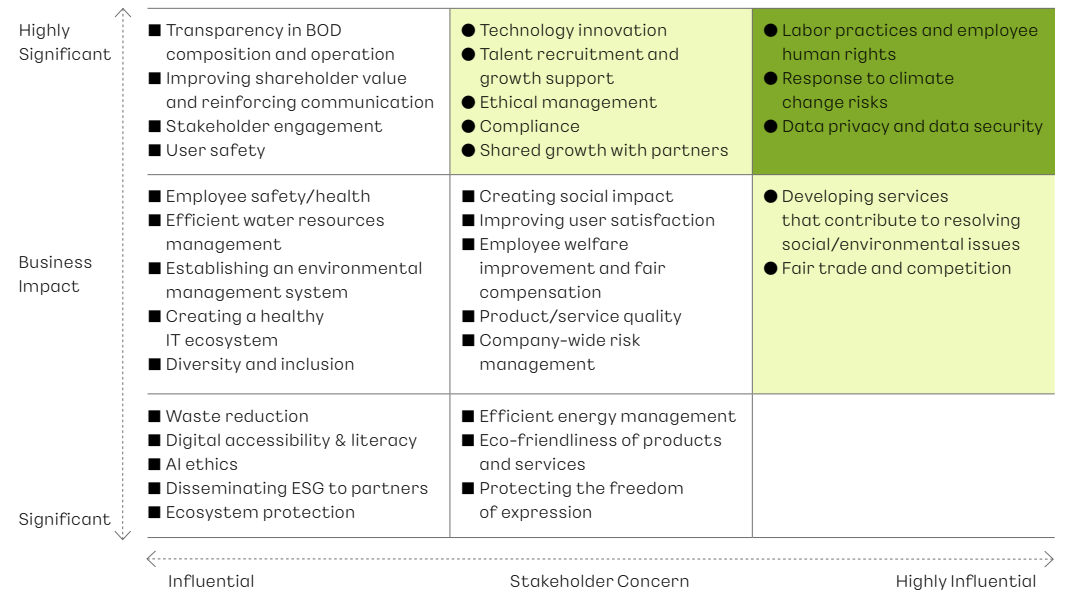
We perform materiality assessments each year to select sustainability issues to report. These issues material to Kakao will be determined based on their impact on our business and the level of concern on the part of stakeholders.

|  |   |  |
|--|---|--|
| <p><b>Step 1.</b><br/><b>Create a pool of sustainability issues</b></p> <p>We create a pool of 32 sustainability issues in total by reviewing the external conditions that surround Kakao.</p> <ul style="list-style-type: none"> <li>ESG disclosure and assessment initiative requirements (GRI Standards, SASB, TCFD, UN SDGs, MSCI, ISO 26000, ISSB Guideline, UNGC CoP, K-ESG indicators, Korea Exchange indicators, National Pensioni Service indicators)</li> <li>Sustainability issues handled by industry peers</li> </ul> | <p><b>Step 2.</b><br/><b>Assess sustainability issues</b></p> <p><b>Analysis of business impact</b></p> <ul style="list-style-type: none"> <li>ESG-related questions raised in 2021</li> <li>ESG-related issues addressed in the major publications disclosed externally by Kakao</li> <li>Krew awareness survey: Performed for 10 days between Jan. 17, 2022 ~ Jan. 26, 2022</li> </ul> <p><b>Analysis of stakeholder concerns</b></p> <ul style="list-style-type: none"> <li>Analysis of international sustainability standards</li> <li>Issues reported by industry peers</li> <li>Media research analysis</li> <li>External stakeholder survey: Performed for 13 days between Jan. 25, 2022 — Feb. 9, 2022</li> </ul> | <p><b>Step 3.</b><br/><b>Select material issues and review their validity</b></p> <p>We selected 10 issues that are high on the list in terms of business impact and stakeholder concern, and analyzed each of these issues on their business significance (sales, cost, reputation, regulation) through stakeholder survey results and ESG expert evaluations.</p> <p>The 10 most material issues were reviewed for their validity through the ESG business division.</p> |
|--|---|--|

## Assessment Process

A total of 10 issues were selected through materiality assessments. The top three reporting issues found to be highly material to Kakao include labor practices and employee human rights, response to climate change, and data privacy and data security. This report was prepared to help stakeholders better understand our responses to highly material issues and the resulting achievements as well as our future plans and approaches.

<Materiality Assessment Matrix>



| Material Issue   | Scope of Stakeholders |      |         |           |      | Business Significance* |      |            |            | Reporting Page |
|--|-----------------------|------|---------|-----------|------|------------------------|------|------------|------------|----------------|
|  | Shareholder /Investor | User | Partner | Community | Krew | Sales                  | Cost | Reputation | Regulation |                |
| Labor practices and employee human rights                                    |                       |      | √       |           | √    | ■                      | ■    | ●          | ●          | 43-44          |
| Response to climate change risks   | √                     |      |         | √         |      | ■                      | ●    | ●          | ●          | 33-35          |
| Data privacy and data security   |                       | √    | √       |           | √    | ▲                      | ■    | ■          | ●          | 60-65          |
| Technology innovation  | √                     | √    |         |           |      | ●                      | ■    | ■          | ■          | 16-27          |
| Talent recruitment and growth support  |                       |      |         |           | √    | ●                      | ●    | ■          | ▲          | 45-48          |
| Developing services that contribute to resolving social/environmental issues |                       | √    |         | √         |      | ■                      | ▲    | ●          | ▲          | 39-40, 53-55   |
| Ethical management   | √                     | √    | √       |           | √    | ■                      | ■    | ●          | ●          | 88-89          |
| Fair trade and competition   |                       |      | √       |           | √    | ■                      | ▲    | ●          | ●          | 59             |
| Compliance   | √                     | √    | √       |           | √    | ■                      | ■    | ●          | ●          | 85-86          |
| Shared growth with partners  |                       |      | √       |           |      | ■                      | ■    | ●          | ▲          | 31, 53-59      |

\* ● High ■ Medium ▲ Low

# Performance Data

## Environmental Performance

### <GHG Emissions Generated<sup>1)</sup>>

| Category            |   | Unit                               | 2018   | 2019   | 2020   | 2021   |
|---------------------|---|------------------------------------|--------|--------|--------|--------|
| Scope 1 emissions   | Total   | tCO <sub>2</sub> e                 | 251    | 287    | 256    | 233    |
|                     | Pangyo Office                                   | tCO <sub>2</sub> e                 | 86     | 116    | 125    | 81     |
|                     | Jeju Office                                     | tCO <sub>2</sub> e                 | 146    | 150    | 47     | 49     |
|                     | Data centers                                    | tCO <sub>2</sub> e                 | 19     | 21     | 85     | 104    |
| Scope 2 emissions   | Total   | tCO <sub>2</sub> e                 | 55,368 | 64,478 | 76,670 | 84,741 |
|                     | Pangyo Office                                   | tCO <sub>2</sub> e                 | 2,149  | 2,130  | 1,969  | 2,209  |
|                     | Jeju Office                                     | tCO <sub>2</sub> e                 | 1,251  | 1,168  | 859    | 860    |
|                     | Data centers                                    | tCO <sub>2</sub> e                 | 51,968 | 61,180 | 73,842 | 81,673 |
| Scope 3 emissions   | Employee commutes made at offices <sup>2)</sup> | tCO <sub>2</sub> e                 | 156    | 185    | 203    | 210    |
| Emissions intensity | Total emissions                                 | tCO <sub>2</sub> e                 | 55,774 | 64,949 | 77,130 | 85,184 |
|                     | Emissions intensity (Scope 1, 2, 3)             | tCO <sub>2</sub> e/KRW 100 million | 2.3    | 2.1    | 1.9    | 1.4    |
|                     | Sales (consolidated)                            | KRW 100 million                    | 24,170 | 30,701 | 41,568 | 61,367 |

### <Energy Consumed<sup>3)</sup>>

| Category                     |  |                                      | Unit                | 2018      | 2019      | 2020      | 2021      |
|------------------------------|--|--------------------------------------|---------------------|-----------|-----------|-----------|-----------|
| Energy consumed              | Direct energy  | Total                                | GJ                  | 3,840     | 4,377     | 3,875     | 3,532     |
|                              |  | Fixed combustion (LPG, diesel)       | GJ                  | 1,535     | 1,596     | 2,002     | 2,317     |
|                              |  | Mobile combustion (gasoline, diesel) | GJ                  | 2,306     | 2,781     | 1,873     | 1,215     |
|                              | Indirect energy  | Total                                | GJ                  | 1,143,879 | 1,331,131 | 1,581,492 | 1,772,592 |
|                              |  | Electricity <sup>4)</sup>            | GJ                  | 1,129,108 | 1,318,190 | 1,571,936 | 1,765,296 |
|                              |  | Heat                                 | GJ                  | 14,770    | 12,941    | 9,556     | 7,296     |
| External energy              | Mobile combustion (commuter bus)                                     | GJ                                   | 2,205               | 2,614     | 2,881     | 2,998     |           |
| Energy consumption intensity | Total energy consumption   |                                      | GJ                  | 1,149,924 | 1,338,123 | 1,588,248 | 1,779,122 |
|                              | Energy consumption intensity (direct, indirect, and external energy) |                                      | GJ/ KRW 100 million | 47.6      | 43.6      | 38.2      | 29.0      |
|                              | Sales (consolidated)   |                                      | KRW 100 million     | 24,170    | 30,701    | 41,568    | 61,367    |
| Renewable energy consumed    | Green premium purchases made   |                                      | MWh                 | N/A       | N/A       | N/A       | 2,978     |

### <Water Consumed<sup>5)</sup>>

| Category                   |                          | Unit                             | 2018   | 2019   | 2020   | 2021   |
|----------------------------|--------------------------|----------------------------------|--------|--------|--------|--------|
| Water withdrawn            | Total                    | m <sup>3</sup>                   | 18,020 | 17,167 | 11,317 | 12,690 |
|                            | Pangyo Office            | m <sup>3</sup>                   | 3,237  | 3,614  | 2,781  | 4,868  |
|                            | Jeju Office              | m <sup>3</sup>                   | 14,783 | 13,553 | 8,536  | 7,822  |
| Water withdrawal intensity | Total                    | m <sup>3</sup> / KRW 100 million | 1.5    | 1.1    | 0.6    | 0.6    |
|                            | Sales (non-consolidated) | KRW 100 million                  | 11,739 | 15,135 | 17,792 | 21,329 |

1) The above sum of GHG emissions was rounded down to the integer level.

2) The 2018-2020 data concern the employee commutes made at our Pangyo Office only, and 2021 data cover both our Pangyo and Jeju Offices.

3) Used the conversion coefficient (9.6) based on the consumption of generators in accordance with the statement preparation standards of the GHG and Energy Target Management System

4) Electricity consumption measured in MWh: 117,615MWh in 2018, 137,311MWh in 2019, 163,743MWh in 2020, 183,885MWh in 2021

5) Data centers' water withdrawals were not included.



## Social Performance – Krew

### <Employee Data<sup>1)</sup>>

| Category                       |            |          | Unit           | 2019  | 2020  | 2021  |
|--------------------------------|------------|----------|----------------|-------|-------|-------|
| Total                          |            |          | No. of persons | 2,701 | 2,837 | 3,472 |
| By gender                      | Male       |          | No. of persons | 1,616 | 1,682 | 1,958 |
|                                | Female     |          | No. of persons | 1,085 | 1,155 | 1,514 |
| By age                         | Under 30   |          | No. of persons | 556   | 625   | 986   |
|                                | 30-50      |          | No. of persons | 2,124 | 2,190 | 2,457 |
|                                | Over 50    |          | No. of persons | 21    | 22    | 29    |
| By contract type <sup>2)</sup> | Full-time  | Subtotal | No. of persons | 2,534 | 2,747 | 3,303 |
|                                |            | Male     | No. of persons | 1,533 | 1,660 | 1,926 |
|                                |            | Female   | No. of persons | 1,001 | 1,087 | 1,377 |
|                                | Fixed-term | Subtotal | No. of persons | 167   | 90    | 169   |
|                                |            | Male     | No. of persons | 83    | 22    | 32    |
|                                |            | Female   | No. of persons | 84    | 68    | 137   |
| By job category                | Office     | Subtotal | No. of persons | 1,319 | 1,380 | 1,750 |
|                                |            | Male     | No. of persons | 467   | 485   | 592   |
|                                |            | Female   | No. of persons | 852   | 895   | 1,158 |
|                                | Technology | Subtotal | No. of persons | 1,382 | 1,457 | 1,722 |
|                                |            | Male     | No. of persons | 1,149 | 1,197 | 1,366 |
|                                |            | Female   | No. of persons | 233   | 260   | 356   |

### <Recruitment>

| Category    |   |                       | Unit           | 2019 | 2020      | 2021      |      |
|-------------|---|-----------------------|----------------|------|-----------|-----------|------|
| Total       |   |                       | No. of persons | 758  | 738       | 994       |      |
| Recruitment | By gender   | Male                  | No. of persons | 432  | 446       | 558       |      |
|             |   | Female                | No. of persons | 326  | 292       | 436       |      |
|             |   | Percentage of males   | %              | 57.0 | 60.4      | 56.1      |      |
|             |   | Percentage of females | %              | 43.0 | 39.6      | 43.9      |      |
|             | By age  | Under 30              | No. of persons | 425  | 528       | 716       |      |
|             |   | 30-50                 | No. of persons | 325  | 208       | 275       |      |
|             |   | Over 50               | No. of persons | 8    | 2         | 3         |      |
|             |   |                       | Under 30       | %    | 56.0      | 71.5      | 72.0 |
|             |   |                       | 30-50          | %    | 42.9      | 28.2      | 27.7 |
|             |   |                       | Over 50        | %    | 1.1       | 0.3       | 0.3  |
|             | Internal recruitment to fill job openings <sup>3)</sup> |                       | %              | N/A  | 8.1       | 10.7      |      |
|             | Average recruitment cost <sup>3)</sup>                  |                       | KRW            | N/A  | 1,192,886 | 1,134,440 |      |

### <Turnover>

| Category                |  |           | Unit           | 2019           | 2020 | 2021 |
|-------------------------|--|-----------|----------------|----------------|------|------|
| Turnover                | Voluntary turnover                             | Total     | No. of persons | 269            | 171  | 330  |
|                         |  | By gender | Male           | No. of persons | 161  | 112  |
|                         |  | Female    | No. of persons | 108            | 59   | 142  |
|                         | By age   | Under 30  | No. of persons | 56             | 37   | 143  |
|                         |  | 30-50     | No. of persons | 212            | 133  | 184  |
|                         |  | Over 50   | No. of persons | 1              | 1    | 3    |
|                         | Voluntary turnover                             |           | %              | 9.9            | 6.3  | 9.5  |
|                         | Average years of service <sup>4)</sup>         |           | No. of years   | 4.9            | 5.3  | 4.9  |
| Dismissal <sup>5)</sup> | Employees dismissed                            |           | No. of persons | 0              | 0    | 0    |
|                         | Employees affected by mergers and acquisitions |           | No. of persons | 0              | 0    | 0    |

1) The number of employees is calculated as of Dec. 31 of each year, and does not include registered directors.  
For further details on employee data, please refer to the 'Status on Employees and Others' under the section 'VIII. Matters on Executives, Employees and Others' of our annual report.

2) There were no temporary employees between 2019 and 2020, and one temporary employee who worked in 2021 was included in calculating the number of fixed-term employees.

3) Data on average internal recruitment to fill job openings and average recruitment costs have been collected since 2020.

4) Average years of service of incumbent employees as of Dec. 31 of each year

5) Only dismissals made for business reasons were calculated.

## Social Performance – Krew

### <Diversity>

| Category(Above management positions) |                                   | Unit           | 2019           | 2020           | 2021 |      |
|--------------------------------------|-----------------------------------|----------------|----------------|----------------|------|------|
| Executives                           | Total                             | No. of persons | 7              | 7              | 7    |      |
|                                      | By gender                         | Male           | No. of persons | 6              | 5    | 5    |
|                                      |                                   | Female         | No. of persons | 1              | 2    | 2    |
|                                      |                                   | Male           | %              | 85.7           | 71.4 | 71.4 |
|                                      |                                   | Female         | %              | 14.3           | 28.6 | 28.6 |
|                                      |                                   | By age         | Under 30       | No. of persons | 0    | 0    |
|                                      |                                   | 30-50          | No. of persons | 3              | 4    | 3    |
|                                      |                                   | Over 50        | No. of persons | 4              | 3    | 4    |
|                                      |                                   | Under 30       | %              | 0              | 0    | 0    |
|                                      |                                   | 30-50          | %              | 42.9           | 57.1 | 42.9 |
|                                      |                                   | Over 50        | %              | 57.1           | 42.9 | 57.1 |
|                                      | High-level managers <sup>1)</sup> | Total          | No. of persons | 97             | 107  | 129  |
| By gender                            |                                   | Male           | No. of persons | 75             | 83   | 89   |
|                                      |                                   | Female         | No. of persons | 22             | 24   | 40   |
|                                      |                                   | Male           | %              | 77.3           | 77.6 | 69.0 |
|                                      |                                   | Female         | %              | 22.7           | 22.4 | 31.0 |
|                                      |                                   | By age         | Under 30       | No. of persons | 0    | 0    |
|                                      |                                   | 30-50          | No. of persons | 90             | 101  | 120  |
|                                      |                                   | Over 50        | No. of persons | 7              | 6    | 9    |
|                                      |                                   | Under 30       | %              | 0              | 0    | 0    |
|                                      |                                   | 30-50          | %              | 92.8           | 94.4 | 93.0 |
|                                      |                                   | Over 50        | %              | 7.2            | 5.6  | 7.0  |
| Low-level managers <sup>2)</sup>     |                                   | Total          | No. of persons | 308            | 346  | 418  |
|                                      | By gender                         | Male           | No. of persons | 211            | 252  | 284  |
|                                      |                                   | Female         | No. of persons | 97             | 94   | 134  |
|                                      |                                   | Male           | %              | 68.5           | 72.8 | 67.9 |
|                                      |                                   | Female         | %              | 31.5           | 27.2 | 32.1 |
|                                      |                                   | By age         | Under 30       | No. of persons | 1    | 4    |
|                                      |                                   | 30-50          | No. of persons | 305            | 339  | 411  |
|                                      |                                   | Over 50        | No. of persons | 2              | 3    | 3    |
|                                      |                                   | Under 30       | %              | 0.3            | 1.1  | 1.0  |
|                                      |                                   | 30-50          | %              | 99.0           | 98.0 | 98.3 |
|                                      |                                   | Over 50        | %              | 0.7            | 0.9  | 0.7  |

| Category  |                                      | Unit                                      | 2019           | 2020           | 2021  |       |
|---|--------------------------------------|---|----------------|----------------|-------|-------|
| Employees at revenue-generating departments <sup>3)</sup> | Total                                | No. of persons                            | 791            | 800            | 1,032 |       |
|   | By gender                            | Male                                      | No. of persons | 260            | 258   | 316   |
|   |                                      | Female                                    | No. of persons | 531            | 542   | 716   |
|   |                                      | Male                                      | %              | 32.9           | 32.3  | 30.6  |
|   |                                      | Female                                    | %              | 67.1           | 67.8  | 69.4  |
|   |                                      | Employees in STEM positions <sup>4)</sup> | Total          | No. of persons | 1,412 | 1,389 |
| By gender   | Male                                 | No. of persons                            | 1,175          | 1,138          | 1,366 |       |
|   | Female                               | No. of persons                            | 237            | 251            | 356   |       |
|   | Male                                 | %   | 83.2           | 81.9           | 79.3  |       |
|   | Female                               | %   | 16.8           | 18.1           | 20.7  |       |
| By nationality <sup>5)</sup>                              | Korea                                | No. of persons                            | 2,694          | 2,824          | 3,455 |       |
|   | US                                   | No. of persons                            | N/A            | N/A            | 8     |       |
|   | Australia                            | No. of persons                            | N/A            | N/A            | 7     |       |
|   | Japan                                | No. of persons                            | N/A            | N/A            | 1     |       |
|   | Canada                               | No. of persons                            | N/A            | N/A            | 1     |       |
| Foreign national employees                                | No. of foreign national employees    | No. of persons                            | 7              | 13             | 17    |       |
|   | Ratio of foreign national employees  | %   | 0.3            | 0.5            | 0.5   |       |
| Employees with disabilities                               | No. of employees with disabilities   | No. of persons                            | 7              | 6              | 8     |       |
|   | Ratio of employees with disabilities | %   | 0.3            | 0.2            | 0.2   |       |

1) Total number of managers in team leader and higher and below executive-level positions

2) Total number of managers in cell leader and higher and below team leader-level positions

3) Total number of employees falling in the service business job category

4) The number of STEM (Science, Technology, Engineering, Mathematics) employees is equal to the number of employees falling under the technology job category

5) The collection of diversity data by nationality was initiated in 2021

## Social Performance – Krew

### <Employee Training>

| Category                                  |                            | Unit                         | 2019                | 2020   | 2021    |       |
|---|----------------------------|------------------------------|---------------------|--------|---------|-------|
| Training targets                          | Total training targets     | No. of persons               | 2,701               | 2,837  | 3,472   |       |
|   | By contract type           | Full-time                    | No. of persons      | 2,534  | 2,747   | 3,303 |
|   |                            | Fixed-term                   | No. of persons      | 167    | 90      | 169   |
| Total training hours <sup>1)</sup>        |                            | No. of hours                 | 20,622              | 22,925 | 102,901 |       |
| Average training hours                    | Training hours per person  | No. of hours/person          | 7.6                 | 8.1    | 29.6    |       |
|   | By gender <sup>2)</sup>    | Male                         | No. of hours/person | 10.5   | 8.8     | 37.3  |
|   |                            | Female                       | No. of hours/person | 3.4    | 7.1     | 15.0  |
|   | By contract type           | Full-time                    | No. of hours/person | 7.8    | 7.3     | 28.5  |
|   |                            | Fixed-term <sup>3)</sup>     | No. of hours/person | 4.4    | 32.7    | 4.5   |
|   | By age                     | Under 30                     | No. of hours/person | 16.7   | 16.1    | 70.9  |
|   |                            | 30-50                        | No. of hours/person | 4.0    | 16.0    | 10.1  |
|   |                            | Over 50                      | No. of hours/person | 1.0    | 2.0     | 5.3   |
|   | By manager level           | Executive                    | No. of hours/person | 0.0    | 0.9     | 1.4   |
|   |                            | High-level manager           | No. of hours/person | 6.3    | 3.9     | 8.6   |
|   |                            | Low-level manager            | No. of hours/person | 2.0    | 8.0     | 10.3  |
|   | Foreign national employees |                              | No. of hours/person | 1.9    | 8.0     | 3.9   |
|   | By training type           | Leadership                   | No. of hours/person | 5.8    | 4.8     | 4.6   |
|   |                            | Onboarding <sup>4)</sup>     | No. of hours/person | 8.0    | 16.7    | 108.7 |
|   |                            | Job competency <sup>4)</sup> | No. of hours/person | 21.2   | 42.0    | 8.8   |
| Knowledge sharing                         |                            | No. of hours/person          | 2.7                 | 1.8    | 2.6     |       |
| Common <sup>5)</sup>                      |                            | No. of hours/person          | N/A                 | N/A    | 4.5     |       |
| Training and exercise expenses per person |                            | KRW million/person           | 0.3                 | 0.3    | 0.2     |       |

### <Compensation>

| Category                |                           | Unit                   | 2019           | 2020   | 2021   |         |
|-------------------------|---------------------------|------------------------|----------------|--------|--------|---------|
| Average employee pay    | Total                     | KRW million            | 80             | 108    | 172    |         |
|                         | Male                      | KRW million            | 92             | 132    | 217    |         |
|                         | Female                    | KRW million            | 62             | 72     | 108    |         |
| Retirement pension plan | DC (Defined contribution) | Funds under management | KRW million    | 544    | 599    | 869     |
|                         |                           | No. of subscribers     | No. of persons | 76     | 78     | 116     |
|                         | DB (Defined benefit)      | Funds under management | KRW million    | 79,279 | 91,336 | 131,504 |
|                         |                           | No. of subscribers     | No. of persons | 1,824  | 2,260  | 2,100   |

1) Total training hours in 2021 increased as onboarding training that was provided three weeks earlier than the previous year included technology job training.

2) The men-to-women ratio of employees who attended developer training for new hires in 2021 amounted to 7:1 and resulted in differences in average training hours between male and female employees.

3) The increased recruitment of interns in non-developer positions in 2020 resulted in increases in training hours for fixed-term employees against 2019.

4) Following the introduction of pre-onboarding training which integrated common onboarding training with technology training, developer training for new hires which had been previously classified as job competency training was incorporated into onboarding training, which resulted in increases in onboarding training hours in 2021 year-on-year while job competency training hours fell.

5) 'Common' training in the average training hours category refers to data privacy training, training for the protection of users and teens, mandatory training for Krew engaging in information technology and data privacy work, and training to prevent money laundering and terrorist fund raising, and the data has been compiled since 2021.

## Social Performance – Krew

### <Parental Leave>

| Category  |        | Unit           | 2019 | 2020 | 2021 |
|---|--------|----------------|------|------|------|
| Employees eligible for parental leave                     | Male   | No. of persons | 529  | 429  | 535  |
|   | Female | No. of persons | 139  | 175  | 270  |
| Employees who took parental leave                         | Male   | No. of persons | 20   | 13   | 10   |
|   | Female | No. of persons | 103  | 112  | 67   |
| Employees who returned to work                            | Male   | No. of persons | 13   | 10   | 2    |
|   | Female | No. of persons | 59   | 65   | 40   |
| Ratio of employees who returned to work <sup>1)</sup>     | Male   | %              | 92.9 | 90.9 | 100  |
|   | Female | %              | 96.7 | 98.5 | 87.0 |
| Retention of employees who returned to work <sup>2)</sup> | Male   | %              | 90.9 | 61.5 | 80.0 |
|   | Female | %              | 77.8 | 91.5 | 95.4 |

### <Labor-Management Relations and Organizational Culture>

| Category  |  | Unit         | 2019        | 2020        | 2021        |
|---|--|--------------|-------------|-------------|-------------|
| Ratio of applying collective bargaining               |  | %            | 100         | 100         | 100         |
| Period to give prior notice on major business changes |  | No. of days  | 50          | 50          | 50          |
| Employee satisfaction                                 | Great Work Place certification                     | -            | Yes         | Yes         | Yes         |
|   | Cycle of employee satisfaction surveys             | -            | Once a year | Once a year | Once a year |
|   | Employee satisfaction survey results <sup>3)</sup> | %            | 64          | 69          | 71          |
| Employee grievance handling <sup>4)</sup>             | Grievances raised                                  | No. of cases | N/A         | N/A         | 3           |
|   | Grievances handled                                 | No. of cases | N/A         | N/A         | 3           |
|   | Grievances handled                                 | %            | N/A         | N/A         | 100         |

### <Occupational Health and Safety>

| Category   |                                    | Unit   | 2019  | 2020  | 2021  |
|--|------------------------------------|--|-------|-------|-------|
| Occupational safety and health management system <sup>5)</sup> | Employees managed under the system | No. of persons                                 | 2,806 | 2,929 | 3,565 |
| Work-related injuries  | Injury rate <sup>6)</sup>          | No. of injuries for every 200,000 hours worked | 0     | 0.03  | 0.03  |
|  | Fatalities                         | No. of cases                                   | 0     | 0     | 0     |
|  | Injuries <sup>7)</sup>             | No. of cases                                   | 0     | 1     | 1     |

## Social Performance – Partner

### <Supplier Data>

| Category         |                                   | Unit             | 2019 | 2020 | 2021 |
|------------------|-----------------------------------|------------------|------|------|------|
| No. of suppliers | Total registered suppliers        | No. of companies | 261  | 210  | 233  |
|                  | Long-term suppliers <sup>8)</sup> | No. of companies | 48   | 50   | 50   |

### <Win-Win Activities with Partners>

| Category                  |              | Unit           | 2019 | 2020 | 2021 |
|---------------------------|--------------|----------------|------|------|------|
| Kakao Class with Partners | Participants | No. of persons | 489  | 323  | 733  |

1) Ratio of employees who returned to work = (No. of employees who returned to work after parental leave) / (No. of employees set to return for the concerned year after taking parental leave during the previous reporting period) × 100

2) Retention rate of employees who took parental leave = (No. of employees who continued to work for 12 months after return from parental leave) / (No. of employees who returned to work after parental leave during the previous reporting period) × 100

3) Employee satisfaction survey results were calculated as the average score of the 'positive work experience' question which comprehensively considers individual 'growth', 'work-related sense of value', and 'work-related sense of achievement' in the organizational health check survey, and data between 2019 and 2020 were restated in accordance with the above criteria.

4) Collection of data on employee grievances handled was initiated in December 2021.

5) Including dispatched and subcontractor employees who are not Kakao's own employees but are under the control of Kakao

6) Injury rate = (No. of work-related injuries) / (annual hours worked) × 200,000 hours

7) No. of injuries in 2021 refers to injuries that accidentally occurred during the 2019 workshop and were verified in 2021.

8) No. of companies which attended Partner's Day

## Social Performance – User

### <Data Privacy and Data Security>

| Category  |  | Unit                             | 2019           | 2020  | 2021  |       |
|---|--|----------------------------------|----------------|-------|-------|-------|
| Training for employees handling personal data                                 | Participants   | No. of persons                   | 1,022          | 1,231 | 2,835 |       |
|   | Training targets   | No. of persons                   | 1,022          | 1,231 | 2,836 |       |
|   | Training hours per person  | No. of hours                     | 1              | 1     | 1     |       |
| Grievances and violations that occurred in relation to personal data handling | Grievances submitted externally in relation to personal data breaches <sup>1)</sup>                  | No. of cases                     | N/A            | N/A   | 0     |       |
|   | Grievances submitted from regulatory authorities in relation to personal data breaches <sup>1)</sup> | No. of cases                     | N/A            | N/A   | 1     |       |
|   | Personal data breaches   | No. of cases                     | 0              | 0     | 0     |       |
|   | Violation related to PII (Personal Identification Information)                                       | %                                | 0              | 0     | 0     |       |
|   | Users affected by personal data breaches   | No. of persons                   | 0              | 0     | 0     |       |
|   | Monetary losses that incurred due to legal procedures concerning data privacy                        | KRW million                      | 0              | 0     | 0     |       |
| Bug Bounty outcomes   | Bugs reported  | No. of cases                     | 28             | 51    | 232   |       |
|   | Those who reported bugs  | No. of persons                   | 23             | 21    | 43    |       |
| Information security training provided  | Employees <sup>2)</sup>  | Employees subject to training    | No. of persons | 2,697 | 2,466 | 2,609 |
|   |  | Employees who completed training | No. of persons | 2,668 | 2,428 | 2,583 |
|   |  | Completion rate                  | %              | 99    | 98    | 99    |
|   | Suppliers <sup>3)</sup>  | Employees subject to training    | No. of persons | 90    | 153   | 261   |
|   |  | Employees who completed training | No. of persons | 90    | 153   | 261   |
|   |  | Completion rate                  | %              | 100   | 100   | 100   |

### <User Satisfaction>

| Category                         |  | Unit         | 2019      | 2020      | 2021      |
|----------------------------------|--|--------------|-----------|-----------|-----------|
| User satisfaction survey results | Customer center satisfaction survey (internal) <sup>4)</sup> | %            | N/A       | 77.7      | 74.6      |
|                                  | User protection assessment (Korea Communications Commission) | Grade        | Good      | Average   | Average   |
| User VOC management              | VOCs submitted   | No. of cases | 2,874,719 | 3,011,591 | 3,292,260 |
|                                  | VOCs handled   | No. of cases | 2,709,725 | 2,849,905 | 3,199,906 |
|                                  | Handling rate  | %            | 94        | 95        | 97        |

## Social Performance – Community

### <Social Impact Activity>

| Category                                      |                                     | Unit                                | 2019            | 2020      | 2021      |        |
|---|-------------------------------------|-------------------------------------|-----------------|-----------|-----------|--------|
| Kakao Together                                | Projects undertaken                 | No. of projects                     | 1,167           | 1,420     | 1,342     |        |
|   | Donations made                      | No. of donations                    | 6,084,449       | 8,303,744 | 6,228,099 |        |
|   | Funds donated                       | KRW million                         | 5,176           | 11,847    | 7,105     |        |
| Kakao Project 100                             | Projects undertaken                 | No. of projects                     | 195             | 1,625     | 1,028     |        |
|   | Participants                        | No. of persons                      | 922             | 52,300    | 26,667    |        |
| External sponsorship and cooperation projects | Harmonious Digital World            | Participating students              | No. of persons  | 20,803    | 8,461     | 20,495 |
|   |                                     | Participants in teacher training    | No. of persons  | 120       | 61        | 176    |
|   |                                     | Participants in Mind Shared Walking | No. of persons  | 820       | 337       | 316    |
| Krew-engaging activities                      | Together Fund (donation program)    | Funds donated                       | KRW million     | 221       | 227       | 218    |
|   |                                     | Support programs                    | No. of programs | 7         | 7         | 7      |
|   | Together Act (engagement program)   | Participants <sup>5)</sup>          | No. of persons  | 161       | 19        | 25     |
|   |                                     | Engagement hours <sup>6)</sup>      | No. of hours    | 2,045     | 231       | 75     |
| CSR programs undertaken in Jeju               | Unplugged Day <sup>7)</sup>         | Participating students              | No. of persons  | 256       | 256       | 0      |
|   | Career experience workshop          | Participating students              | No. of persons  | 1,321     | 113       | 745    |
|   | Show me the IT                      |                                     |                 |           |           |        |
|   | Remote career mentoring             | Participating students              | No. of persons  | N/A       | N/A       | 4,663  |
|   | Dolharbang on the Internet of Kakao | Individuals supported               | No. of persons  | 51        | 27        | 17     |
|   |                                     | Organizations supported             | No. of teams    | 83        | 27        | 10     |
|   |                                     | Funds provided                      | KRW million     | 102       | 216       | 92     |
| Kakao Class                                   | Participants in Kakal Class         | No. of persons                      | 237             | 149       | 696       |        |
| Jeju Impact Challenge                         | Teams supported                     | No. of teams                        | N/A             | N/A       | 7         |        |
|   | Funds provided                      | KRW million                         | N/A             | N/A       | 21        |        |

1) Collection of data on grievances raised in relation to personal data breaches was initiated in December 2021

2) Provided to all employees, including full-time and contract workers, and short-term workers

3) Provided to employees of partners who are working at our operations under outsourcing contract

4) Customer center satisfaction surveys have been conducted since 2020, and the average score of the first and second half is reported

5) Based on the net number of participants excluding duplicates

6) Including duplicates

7) Unplugged Day was not held in 2021 due to COVID-19



## Governance Performance

### <BOD Data>

| Category        |   | Unit                 | 2019           | 2020 | 2021 |    |
|-----------------|---|----------------------|----------------|------|------|----|
| BOD composition | Total                                       | No. of persons       | 7              | 7    | 7    |    |
|                 | By director type                            | Inside director      | No. of persons | 3    | 3    | 3  |
|                 |   | Independent director | No. of persons | 4    | 4    | 4  |
|                 | By gender                                   | Male                 | No. of persons | 6    | 5    | 5  |
|                 |   | Female               | No. of persons | 1    | 2    | 2  |
| BOD operation   | Meetings held                               | No. of meetings      | 10             | 10   | 17   |    |
|                 | Average attendance of independent directors | %                    | 97.5           | 100  | 100  |    |
|                 | Agenda items                                | For decision         | No. of items   | 20   | 37   | 45 |
|                 |   | For information      | No. of items   | 2    | 11   | 14 |

### <BOD Committees<sup>1)</sup>>

| Category                       |                                | Unit            | 2019         | 2020 | 2021 |   |
|--------------------------------|--------------------------------|-----------------|--------------|------|------|---|
| Audit Committee                | Ratio of independent directors | %               | 100          | 100  | 100  |   |
|                                | Meetings held                  | No. of meetings | 5            | 5    | 5    |   |
|                                | Agenda items                   | For decision    | Agenda items | 2    | 2    | 2 |
| For information                |                                | No. of items    | 5            | 5    | 6    |   |
| Compensation Committee         | Ratio of independent directors | %               | 66.7         | 66.7 | 100  |   |
|                                | Meetings held                  | No. of meetings | 1            | 2    | 3    |   |
|                                | Agenda items                   | For decision    | Agenda items | 1    | 2    | 4 |
| For information                |                                | No. of items    | 0            | 0    | 1    |   |
| Directors Nominating Committee | Ratio of independent directors | %               | 66.7         | 66.7 | 66.7 |   |
|                                | Meetings held                  | No. of meetings | 1            | 2    | 3    |   |
|                                | Agenda items                   | For decision    | Agenda items | 1    | 2    | 2 |
| For information                |                                | No. of items    | 0            | 0    | 1    |   |
| ESG Committee                  | Ratio of independent directors | %               | N/A          | N/A  | 66.7 |   |
|                                | Meetings held                  | No. of meetings | N/A          | N/A  | 4    |   |
|                                | Agenda items                   | For decision    | Agenda items | N/A  | N/A  | 3 |
|                                |                                | For information | No. of items | N/A  | N/A  | 1 |

### <Ethical Management>

| Category   |                                       | Unit                                   | 2019              | 2020         | 2021  |    |
|--|---------------------------------------|--|-------------------|--------------|-------|----|
| Ethics training for new hires                                    | Training targets                      | No. of persons                         | 192               | 577          | 1,101 |    |
|  | Training participants                 | No. of persons                         | 192               | 577          | 1,101 |    |
|  | Training courses                      | No. of courses                         | 1                 | 1            | 1     |    |
| Ethics and human rights training for all employees <sup>3)</sup> | Training targets <sup>2)</sup>        | No. of persons                         | N/A               | N/A          | 2,640 |    |
|  | Training participants                 | No. of persons                         | N/A               | N/A          | 2,634 |    |
|  | Completion rate                       | %                                      | N/A               | N/A          | 99.8  |    |
| Training to improve perceptions on disability <sup>4)</sup>      | Training targets <sup>2)</sup>        | No. of persons                         | 2,742             | 2,631        | 3,350 |    |
|  | Training participants                 | No. of persons                         | 2,706             | 2,625        | 3,350 |    |
|  | Completion rate                       | %                                      | 98.7              | 99.8         | 100   |    |
| Training to prevent sexual harassment <sup>4)</sup>              | Training targets <sup>2)</sup>        | No. of persons                         | 2,742             | 2,631        | 3,350 |    |
|  | Training participants                 | No. of persons                         | 2,706             | 2,625        | 3,350 |    |
|  | Completion rate                       | %                                      | 98.7              | 99.8         | 100   |    |
| Training on workplace harassment <sup>4)</sup>                   | Training targets <sup>2)</sup>        | No. of persons                         | N/A               | N/A          | 3,350 |    |
|  | Training participants                 | No. of persons                         | N/A               | N/A          | 3,350 |    |
|  | Completion rate                       | %                                      | N/A               | N/A          | 100   |    |
| Hotline reporting  | Total reports submitted <sup>5)</sup> | Total                                  | No. of cases      | 17           | 7     | 11 |
|  |                                       | Reports submitted by type of violation | Sexual harassment | No. of cases | 3     | 1  |
|  |                                       | Workplace harassment                   | No. of cases      | 8            | 4     | 4  |
|  |                                       | Malpractice/ embezzlement              | No. of cases      | 0            | 1     | 1  |
|  |                                       | Regulatory violation                   | No. of cases      | 6            | 1     | 5  |
|  |                                       | Others                                 | No. of cases      | 0            | 0     | 1  |
|  | Actions taken                         | Reprimand                              | No. of cases      | 0            | 0     | 0  |
|  |                                       | Pay cut                                | No. of cases      | 3            | 0     | 2  |
|  |                                       | Suspension                             | No. of cases      | 2            | 3     | 4  |
|  |                                       | Dismissal                              | No. of cases      | 4            | 0     | 4  |
| Others   |                                       | No. of cases                           | 8                 | 4            | 1     |    |

1) Calculated as of Dec. 31 of the concerned year

2) Provided to all employees, including full-time and contract workers, and short-term workers

3) Includes training on human rights sensitivity and the prevention of human rights violation, and provided to incumbent Krew as of Q1 2021 when the training was conducted

4) Provided to all Krew members and Krew hired each month

5) Calculated as cases whose investigative results were confirmed following the submission of reports concerning ethics and anti-corruption through Hotline, Time's Up, TellMe@Kakao, KakaoTalk, and e-mail

## Governance Performance

### <Value Distributed among Stakeholders>

| Category             |  | Unit        | 2019      | 2020      | 2021      |
|----------------------|--|-------------|-----------|-----------|-----------|
| Shareholder/investor | Dividends and interest expenses <sup>1)</sup>              | KRW million | 21,633    | 21,864    | 88,729    |
| Krew                 | Labor and benefits expenses                                | KRW million | 649,420   | 859,351   | 1,311,630 |
| Partner              | Product and manufacturing costs, payment agency fees, etc. | KRW million | 1,434,352 | 1,791,929 | 2,544,767 |
| Community            | Donations  | KRW million | 4,651     | 14,745    | 15,217    |

### <Association Fees>

| Category                     |                                       | Unit        | 2019  | 2020 | 2021  |
|------------------------------|---------------------------------------|-------------|-------|------|-------|
| Association-related expenses | Total association fees (consolidated) | KRW million | 1,273 | 903  | 1,587 |

### <Income Taxes Paid<sup>1)</sup>>

| Category            |  | Unit        | 2019     | 2020    | 2021      |
|---------------------|--|-------------|----------|---------|-----------|
| Earnings before tax |  | KRW million | -234,257 | 414,271 | 2,293,694 |
| Reported tax        |  | KRW million | -56,690  | 100,254 | 555,074   |
| Effective tax rate  |  | %           | N/A      | 24      | 24        |
| Cash taxes paid     |  | KRW million | 110,595  | 77,453  | 227,379   |
| Cash tax rate       |  | %           | N/A      | 19      | 10        |

### <Taxes Paid by Country<sup>2)</sup>>

| Category    |                     | Unit        | 2019      | 2020      | 2021      |
|-------------|---------------------|-------------|-----------|-----------|-----------|
| Domestic    | Sales               | KRW million | 2,886,931 | 3,736,549 | 5,504,247 |
|             | Earnings before tax | KRW million | -198,013  | 400,088   | 2,272,221 |
|             | Income tax expenses | KRW million | 106,407   | 242,483   | 641,800   |
|             | Taxes paid          | KRW million | 109,023   | 76,199    | 227,092   |
| Japan       | Sales               | KRW million | 85,969    | 265,793   | 460,232   |
|             | Earnings before tax | KRW million | -16,456   | 12,599    | 21,816    |
|             | Income tax expenses | KRW million | 81        | -5,149    | -2,553    |
|             | Taxes paid          | KRW million | 521       | 73        | 127       |
| Netherlands | Sales               | KRW million | 82,934    | 121,797   | 38,834    |
|             | Earnings before tax | KRW million | -2,235    | 1,809     | 577       |
|             | Income tax expenses | KRW million | 1,238     | 1,677     | 535       |
|             | Taxes paid          | KRW million | 788       | 1,238     | 395       |
| Others      | Sales               | KRW million | 14,278    | 32,677    | 133,356   |
|             | Earnings before tax | KRW million | -17,553   | -225      | -919      |
|             | Income tax expenses | KRW million | -57       | 1,901     | 7,759     |
|             | Taxes paid          | KRW million | 263       | -57       | -235      |

1) Calculated as of Dec. 31 of the concerned year on a consolidated basis

2) We engage in portal and other internet information intermediary service business in Korea, software development and service business in Japan, game software development and supply business in the Netherlands, and software development, service and wholesale/retail business in other countries.

Data on Kakao Community Members<sup>1)</sup>

| Category                                |                          | Unit           | 2019           | 2020 | 2021  |     |
|---|--------------------------|----------------|----------------|------|-------|-----|
| <b>Kakao Entertainment<sup>2)</sup></b> |                          |                |                |      |       |     |
| Employees                               | Total                    | No. of persons | 492            | 719  | 1,223 |     |
|   | By gender                | Male           | No. of persons | 237  | 333   | 565 |
|   |                          | Female         | No. of persons | 255  | 386   | 658 |
|   | Recruitment              | No. of persons | 282            | 315  | 773   |     |
| Diversity                               | Male managers            | No. of persons | 72             | 96   | 146   |     |
|   | Female managers          | No. of persons | 34             | 58   | 91    |     |
|   | Ratio of female managers | %              | 32.1           | 37.7 | 38.4  |     |
| <b>Kakao Pay<sup>3)</sup></b>           |                          |                |                |      |       |     |
| Employees                               | Total                    | No. of persons | 506            | 661  | 929   |     |
|   | By gender                | Male           | No. of persons | 314  | 414   | 579 |
|   |                          | Female         | No. of persons | 192  | 247   | 350 |
|   | Recruitment              | No. of persons | 230            | 231  | 334   |     |
| Diversity                               | Male managers            | No. of persons | 48             | 70   | 98    |     |
|   | Female managers          | No. of persons | 14             | 13   | 18    |     |
|   | Ratio of female managers | %              | 22.6           | 15.7 | 15.5  |     |
| <b>Kakao Games</b>                      |                          |                |                |      |       |     |
| Employees                               | Total                    | No. of persons | 384            | 379  | 433   |     |
|   | By gender                | Male           | No. of persons | 255  | 247   | 266 |
|   |                          | Female         | No. of persons | 129  | 132   | 167 |
|   | Recruitment              | No. of persons | 67             | 49   | 109   |     |
| Diversity                               | Male managers            | No. of persons | 71             | 68   | 71    |     |
|   | Female managers          | No. of persons | 28             | 33   | 34    |     |
|   | Ratio of female managers | %              | 28.3           | 32.7 | 32.4  |     |
| <b>Kakao Mobility<sup>3)</sup></b>      |                          |                |                |      |       |     |
| Employees                               | Total                    | No. of persons | 369            | 470  | 737   |     |
|   | By gender                | Male           | No. of persons | 269  | 323   | 512 |
|   |                          | Female         | No. of persons | 100  | 147   | 225 |
|   | Recruitment              | No. of persons | 115            | 143  | 279   |     |
| Diversity                               | Male managers            | No. of persons | 57             | 66   | 98    |     |
|   | Female managers          | No. of persons | 11             | 15   | 24    |     |
|   | Ratio of female managers | %              | 16.2           | 18.5 | 19.7  |     |

| Category                |                          | Unit           | 2019           | 2020 | 2021  |     |
|-------------------------|--------------------------|----------------|----------------|------|-------|-----|
| <b>Kakao Bank</b>       |                          |                |                |      |       |     |
| Employees               | Total                    | No. of persons | 786            | 913  | 1,031 |     |
|                         | By gender                | Male           | No. of persons | 417  | 474   | 544 |
|                         |                          | Female         | No. of persons | 369  | 439   | 487 |
|                         | Recruitment              | No. of persons | 243            | 204  | 289   |     |
| Diversity               | Male managers            | No. of persons | 20             | 30   | 42    |     |
|                         | Female managers          | No. of persons | 6              | 11   | 12    |     |
|                         | Ratio of female managers | %              | 23.1           | 26.8 | 22.2  |     |
| <b>Kakao Piccoma</b>    |                          |                |                |      |       |     |
| Employees               | Total                    | No. of persons | 77             | 96   | 169   |     |
|                         | By gender                | Male           | No. of persons | 39   | 51    | 87  |
|                         |                          | Female         | No. of persons | 38   | 45    | 82  |
|                         | Recruitment              | No. of persons | 25             | 31   | 73    |     |
| Diversity               | Male managers            | No. of persons | 16             | 19   | 26    |     |
|                         | Female managers          | No. of persons | 9              | 8    | 13    |     |
|                         | Ratio of female managers | %              | 36.0           | 29.6 | 33.3  |     |
| <b>Kakao Investment</b> |                          |                |                |      |       |     |
| Employees               | Total                    | No. of persons | 17             | 22   | 20    |     |
|                         | By gender                | Male           | No. of persons | 14   | 16    | 12  |
|                         |                          | Female         | No. of persons | 3    | 6     | 8   |
|                         | Recruitment              | No. of persons | 6              | 7    | 10    |     |
| Diversity               | Male managers            | No. of persons | 8              | 9    | 7     |     |
|                         | Female managers          | No. of persons | 1              | 1    | 1     |     |
|                         | Ratio of female managers | %              | 11.1           | 10.0 | 12.5  |     |
| <b>Kakao Enterprise</b> |                          |                |                |      |       |     |
| Employees               | Total                    | No. of persons | 532            | 891  | 1,068 |     |
|                         | By gender                | Male           | No. of persons | 379  | 623   | 738 |
|                         |                          | Female         | No. of persons | 153  | 268   | 330 |
|                         | Recruitment              | No. of persons | 52             | 474  | 420   |     |
| Diversity               | Male managers            | No. of persons | 64             | 128  | 186   |     |
|                         | Female managers          | No. of persons | 8              | 20   | 35    |     |
|                         | Ratio of female managers | %              | 11.1           | 13.5 | 15.8  |     |

- 1) Registered executives were excluded in calculating data on the No. of managers in the 'Diversity' data table.  
2) The 2019-2020 data were restated by excluding employees of Melon which was merged on September 1, 2021, and 2021 numbers include Melon employees.  
3) The 2019-2020 data were restated in line with the introduction of a new headcount system.

Data on Kakao Community Members<sup>1)</sup>

| Category              |                          | Unit           | 2019           | 2020 | 2021 |    |
|-----------------------|--------------------------|----------------|----------------|------|------|----|
| <b>Krust Universe</b> |                          |                |                |      |      |    |
| Employees             | Total                    | No. of persons | 4              | 3    | 114  |    |
|                       | By gender                | Male           | No. of persons | 3    | 2    | 77 |
|                       |                          | Female         | No. of persons | 1    | 1    | 37 |
|                       | Recruitment              | No. of persons | 1              | 0    | 134  |    |
| Diversity             | Male managers            | No. of persons | 0              | 0    | 21   |    |
|                       | Female managers          | No. of persons | 0              | 0    | 2    |    |
|                       | Ratio of female managers | %              | -              | -    | 8.7  |    |
| <b>Ground X</b>       |                          |                |                |      |      |    |
| Employees             | Total                    | No. of persons | 88             | 85   | 116  |    |
|                       | By gender                | Male           | No. of persons | 67   | 63   | 81 |
|                       |                          | Female         | No. of persons | 21   | 22   | 35 |
|                       | Recruitment              | No. of persons | 42             | 14   | 39   |    |
| Diversity             | Male managers            | No. of persons | 17             | 10   | 16   |    |
|                       | Female managers          | No. of persons | 2              | 1    | 1    |    |
|                       | Ratio of female managers | %              | 10.5           | 9.1  | 5.9  |    |
| <b>Kakao Ventures</b> |                          |                |                |      |      |    |
| Employees             | Total                    | No. of persons | 17             | 21   | 20   |    |
|                       | By gender                | Male           | No. of persons | 12   | 13   | 14 |
|                       |                          | Female         | No. of persons | 5    | 8    | 6  |
|                       | Recruitment              | No. of persons | 6              | 6    | 2    |    |
| Diversity             | Male managers            | No. of persons | 5              | 6    | 8    |    |
|                       | Female managers          | No. of persons | 0              | 1    | 1    |    |
|                       | Ratio of female managers | %              | 0.0            | 14.3 | 11.1 |    |
| <b>Kakao Brain</b>    |                          |                |                |      |      |    |
| Employees             | Total                    | No. of persons | 42             | 65   | 125  |    |
|                       | By gender                | Male           | No. of persons | 33   | 56   | 99 |
|                       |                          | Female         | No. of persons | 9    | 9    | 26 |
|                       | Recruitment              | No. of persons | 14             | 44   | 85   |    |
| Diversity             | Male managers            | No. of persons | 6              | 10   | 17   |    |
|                       | Female managers          | No. of persons | 2              | 1    | 4    |    |
|                       | Ratio of female managers | %              | 25.0           | 9.1  | 19.0 |    |

| Category                             |                             | Unit           | 2019           | 2020 | 2021 |     |
|--------------------------------------|-----------------------------|----------------|----------------|------|------|-----|
| <b>KnWorks</b>                       |                             |                |                |      |      |     |
| Employees                            | Total                       | No. of persons | 1,073          | 898  | 856  |     |
|                                      | By gender                   | Male           | No. of persons | 347  | 294  | 278 |
|                                      |                             | Female         | No. of persons | 726  | 604  | 578 |
|                                      | Recruitment                 | No. of persons | 227            | 41   | 79   |     |
| Diversity                            | Male managers               | No. of persons | 67             | 59   | 58   |     |
|                                      | Female managers             | No. of persons | 64             | 65   | 69   |     |
|                                      | Ratio of female managers    | %              | 48.9           | 52.4 | 54.3 |     |
| <b>dktechin</b>                      |                             |                |                |      |      |     |
| Employees                            | Total                       | No. of persons | 336            | 438  | 482  |     |
|                                      | By gender                   | Male           | No. of persons | 198  | 257  | 272 |
|                                      |                             | Female         | No. of persons | 138  | 181  | 210 |
|                                      | Recruitment                 | No. of persons | 130            | 186  | 158  |     |
| Diversity                            | Male managers               | No. of persons | 15             | 25   | 37   |     |
|                                      | Female managers             | No. of persons | 2              | 4    | 7    |     |
|                                      | Ratio of female managers    | %              | 11.8           | 13.8 | 15.9 |     |
| <b>Linkage Lab</b>                   |                             |                |                |      |      |     |
| Employees                            | Total                       | No. of persons | 107            | 130  | 130  |     |
|                                      | By gender                   | Male           | No. of persons | 54   | 62   | 59  |
|                                      |                             | Female         | No. of persons | 53   | 68   | 71  |
|                                      | Recruitment                 | No. of persons | 19             | 29   | 22   |     |
| Diversity                            | Male managers               | No. of persons | 3              | 4    | 4    |     |
|                                      | Female managers             | No. of persons | 5              | 7    | 7    |     |
|                                      | Ratio of female managers    | %              | 62.5           | 63.6 | 63.6 |     |
|                                      | Employees with disabilities | No. of persons | 71             | 81   | 84   |     |
| Ratio of employees with disabilities | %                           | 68.3           | 63.8           | 64.6 |      |     |

1) Registered executives were excluded in calculating data on the No. of managers in the 'Diversity' data table.

# Reporting Methodology

## Reporting Approach

Kakao's Commitment and Responsibility Report aims to share with stakeholders the company's sustainability strategy, implementation organization, management system, programs, and activities and achievements. We also transparently disclose our efforts and accomplishments made for the past one year to deliver on our commitment and responsibility set out in May 2021 to bolster trust from stakeholders.

This report was prepared in accordance with the international sustainability reporting framework of the GRI (Global Reporting Initiative): Core option, and with the Internet Media & Services Industry Standard of the SASB (Sustainability Accounting Standards Board) of the US. The financial performance contained herein was presented in conformity with K-IFRS<sup>1)</sup>, unless otherwise stated. This report also elaborates our responses to climate change in conformity with the TCFD recommendations, and illustrates our activities that we implement to comply with the UN Global Compact 10 Principles in the areas of human rights, labour, the environment, and anti-corruption as a member of the UNGC as well as to attain the UN SDGs (Sustainable Development Goals).

## Reporting Period and Scope

This report spans the period between January 1, 2021 and December 31, 2021. Information prior to 2021 or in the first half of 2022 is partially included and such information was separately marked within the report. For quantitative performance, data over the recent three years (2019~2021) are provided to enable year-over-year trend analyses.

As to the reporting scope, this report presents financial performance on a consolidated basis and non-financial performance on a non-consolidated basis with a focus on Kakao's performance. A portion of the non-financial performance data concern the performance of our major affiliated companies, and this is separately marked within the report. While quantitative performance in each ESG area was prepared on a non-

consolidated basis (page 95-102), some of the governance performance — values distributed among stakeholders, association fees paid, and income taxes paid — was prepared on a consolidated basis.

## Standards Used in Calculating Social Performance

Employee data in the social performance section are presented on a non-consolidated basis on pages 96-97 and also on a consolidated basis for performance data from 2021 to help stakeholders better understand our ESG activities and achievements.

### <Employee Data on a Consolidated Basis>

| Category                      |                                 |                            | Unit           | 2021           |        |
|-------------------------------|---------------------------------|----------------------------|----------------|----------------|--------|
| Employees <sup>2)</sup>       | Total                           |                            | No. of persons | 14,178         |        |
|                               | By gender                       | Male                       | No. of persons | 8,014          |        |
|                               |                                 | Female                     | No. of persons | 6,164          |        |
|                               | By contract type                | Full-time                  | Subtotal       | No. of persons | 13,206 |
|                               |                                 |                            | Male           | No. of persons | 7,665  |
|                               |                                 | Female                     | No. of persons | 5,541          |        |
| Fixed-term                    |                                 | Subtotal                   | No. of persons | 972            |        |
|                               |                                 | Male                       | No. of persons | 349            |        |
| Female                        |                                 | No. of persons             | 623            |                |        |
| Recruitment                   | Total                           |                            | No. of persons | 5,141          |        |
|                               | By Gender                       | Male                       | No. of persons | 2,846          |        |
|                               |                                 | Female                     | No. of persons | 2,295          |        |
| Turnover (voluntary turnover) | Total                           |                            | No. of persons | 1,763          |        |
|                               | By Gender                       | Male                       | No. of persons | 1,010          |        |
|                               |                                 | Female                     | No. of persons | 753            |        |
| Diversity                     | Female managers <sup>3)</sup>   | Ratio of female managers   | %              | 28.2           |        |
|                               |                                 | No. of female managers     | No. of persons | 609            |        |
|                               |                                 | Total No. of managers      | No. of persons | 2,162          |        |
|                               | Female executives <sup>4)</sup> | Ratio of female executives | %              | 8.6            |        |
|                               |                                 | No. of female executives   | No. of persons | 22             |        |
|                               | Total No. of executives         | No. of persons             | 257            |                |        |

1) As to consolidated companies, please see 'Overview of Consolidated Subsidiaries' on page 3 of our 2021 business report.

2) In calculating employee data, registered executives, temporary workers, and non-affiliated workers are excluded, and those who hold multiple positions are classified based on their 'main affiliation'.

3) The managers in the diversity data section refer to those in low-level manager and above positions, and registered executives are excluded in calculating the number of managers.

4) Calculating the number of executives in the diversity section includes registered executives only.

## Standards Used in Calculating Environmental Performance

GHG emissions and energy consumption data in the environmental performance section were calculated based on the 4-year performance of domestic operations (Pangyo and Jeju Office) and leased data centers, and were verified by the Korea Management Registrar as an independent third-party verification organization. As to water consumption, data were calculated for the past 4 years at domestic operations (Pangyo and Jeju Office).

## Information Correction and Restatement

The following data were restated and thus show discrepancies from the previous year's report.

- Kakao Corporation merged with Kakao Commerce on September 1, 2021, and Kakao Commerce's performance was restated as Kakao's performance.
- The employee satisfaction survey results outlined on page 99 restated the data of the previous year's report due to change in standards in calculating positive responses to the 'positive work experience' questions (only those questions that are not likely to change were included)
- The hotline reporting data on page 101 restated the data of the previous year's report due to change in standards in calculating the number of reports submitted and actions taken (calculated based on those cases that were confirmed as a result of investigations).
- The 'values distributed among stakeholders' on page 102 restated interest expenses paid for shareholders and investors in 2020 as the data were corrected.
- The employee data of Kakao Entertainment, Kakao Pay, and Kakao Mobility on pages 103-104 in the Data on Kakao Community Members section restated the previous year's data due to change in calculation standards.
  - Kakao Entertainment: 2019-2020 data excluded employees of Melon which was merged on September 1, 2021, and 2021 include Melon' employees.
  - Kakao Pay, Kakao Mobility: 2019-2020 data were corrected in line with the introduction of a new headcount system.

## GRI Contents Index

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|                                      | 102-11     | Precautionary Principle or approach                          | 7, 112   | Joined the UNGC, endorsed the TCFD, and submitted an SBTi commitment letter to declare our environmental responsibility |
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| Anti-corruption 2016                       | 205-2 Communication and training about anti-corruption policies and procedures        | 59, 88, 101    |  |
|  | 205-3 Confirmed incidents of corruption and actions taken                             | 101            | For one case of malpractice/ embezzlement in 2021, action was taken to terminate employment. There were no cases that non-compliance with anti-corruption guidelines and procedures resulted in such legal actions as the termination of contract with suppliers or litigations. |
| Management Approach                        | 103-1~3 Management Approach   | 42, 59         |  |
| Anti-competitive Behavior 2016             | 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices | -              | No legal actions were taken against anti-competitive or monopoly practices during the reporting period.  |
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| Management Approach                 | 103-1~3 Management Approach  | 33~34          |  |
| Environmental Compliance 2016       | 307-1 Non-compliance with environmental laws and regulations   | -              | No cases of non-compliance with environmental laws and regulations occurred during the reporting period. |
| <b>Social Performance (GRI 400)</b> |  |                |  |
| Management Approach                 | 103-1~3 Management Approach  | 42, 45, 51     |  |
| Employment 2016                     | 401-1 New employee hires and employee turnover   | 96             |  |
|                                     | 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees | 52             |  |
|                                     | 401-3 Parental leave   | 44, 99         |  |
| Management Approach                 | 103-1~3 Management Approach  | 42, 44         |  |
| Labor/Management Relations 2016     | 402-1 Minimum notice periods regarding operational changes   | 99             |  |
| Management Approach                 | 103-1~3 Management Approach  | 42, 51         |  |
| Occupational Health and Safety 2018 | 403-1 Occupational health and safety management system   | 51             |  |
|                                     | 403-2 Hazard identification, risk assessment, and incident investigation                                 | 51             |  |
|                                     | 403-3 Occupational health services   | 51             |  |
|                                     | 403-4 Worker participation and communication on occupational health and safety                           | 51             |  |
|                                     | 403-5 Worker training on occupational health and safety  | 51             |  |

| Standard  | Disclosure   | Reporting Page | Note |
|---|--|----------------|------|
|   | 403-5 Worker training on occupational health and safety  | 51             |      |
|   | 403-6 Promotion of worker health   | 51             |      |
|   | 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships  | 51             |      |
|   | 403-8 Workers covered by an occupational health and safety management system   | 99             |      |
|   | 403-9 Work-related injuries  | 99             |      |
|   | 403-10 Work-related ill health   | 51             |      |
| Management Approach                                   | 103-1~3 Management Approach  | 42, 45         |      |
| Training and Education 2016                           | 404-1 Average hours of training per year per employee  | 98             |      |
|   | 404-3 Percentage of employees receiving regular performance appraisals and career development reviews                | 47~48          |      |
| Management Approach                                   | 103-1~3 Management Approach  | 42, 44, 82     |      |
| Diversity and Equal Opportunity 2016                  | 405-1 Diversity of governance bodies and employees   | 83, 97, 101    |      |
| Management Approach                                   | 103-1~3 Management Approach  | 42~43          |      |
| Freedom of Association and Collective Bargaining 2016 | 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk | 43             |      |
| Management Approach                                   | 103-1~3 Management Approach  | 42~43          |      |
| Child Labor 2016                                      | 408-1 Operations and suppliers at significant risk for incidents of child labor                                      | 43             |      |
| Management Approach                                   | 103-1~3 Management Approach  | 42~43          |      |
| Forced or Compulsory Labor 2016                       | 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor                       | 43             |      |
| Management Approach                                   | 103-1~3 Management Approach  | 42~43          |      |

| Standard                        | Disclosure  | Reporting Page | Note  |
|---------------------------------|---|----------------|---|
| Human Rights Assessment 2016    | 412-2 Employees trained on human rights policies or procedures                                      | 43, 101        |   |
| Management Approach             | 103-1~3 Management Approach   | 42, 74, 79     |   |
| Local Communities 2016          | 413-1 Operations with local community engagement, impact assessments, and development programs      | 74~79          |   |
| Management Approach             | 103-1~3 Management Approach   | 80, 89         |   |
| Public Policy 2016              | 415-1 Political contributions   | 89             | No political contributions are made pursuant to Article 31 of the Political Funds Act.            |
| Management Approach             | 103-1~3 Management Approach   | 42, 66~70      |   |
| Customer Health and Safety 2016 | 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services | -              | No incidents of non-compliance occurred during the reporting period.                              |
| Management Approach             | 103-1~3 Management Approach   | 42             |   |
| Marketing and Labeling 2016     | 417-2 Incidents of non-compliance concerning product and service information and labeling           | -              | No incidents of non-compliance occurred during the reporting period.                              |
|                                 | 417-3 Incidents of non-compliance concerning marketing communications                               | -              | Refer to '3. Matters concerning sanctions and others' on pages 471-474 of the 2021 annual report. |
| Management Approach             | 103-1~3 Management Approach   | 42, 60~65      |   |
| Customer Privacy 2016           | 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data  | 100            |   |
| Management Approach             | 103-1~3 Management Approach   | 80, 86, 88     |   |
| Socioeconomic Compliance 2016   | 419-1 Non-compliance with laws and regulations in the social and economic area                      | -              | Refer to '3. Matters concerning sanctions and others' on pages 471-474 of the 2021 annual report. |

## SASB Index

Kakao makes disclosures in accordance with the Conceptual Framework developed by the SASB (Sustainability Accounting Standards Board) as industry-specific standards that companies can voluntarily adopt to disclose their data on sustainability issues.

We believe that in so doing, we can provide investors and other wide-ranging stakeholders with useful information that aids in their decision-making process. The following SASB Index was prepared in conformity with the Internet Media & Services Industry Standard of the Technology & Communications Sector under the SASB Sustainable Industry Classification System (SICS).

| Topic   | Code         | Accounting Metrics <sup>1)</sup>   | Reporting Page | Description   |
|---|--------------|--|----------------|---|
| Environmental Footprint of Hardware Infrastructure          | TC-IM-130a.1 | (1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable   | 95             | (1) 1,779,121 GJ <sup>2)</sup> , (2) 99.2%, (3) We plan to install 1,000kW-capacity photovoltaic panels and use 50kW of green fuel cell electricity at our data center to be completed in Ansan, Korea.   |
|   | TC-IM-130a.2 | (1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress                     | 95             | (1) 19,056m <sup>3</sup> (excluding water withdrawals at data centers), (2) Our Pangyo Office, Jeju Office, and data centers are not located in regions with water stress.  |
|   | TC-IM-130a.3 | Discussion of the integration of environmental considerations into strategic planning for data center needs  | 36-37          | Refer to the 'green data center' section of the report  |
| Data Privacy, Advertising Standards & Freedom of Expression | TC-IM-220a.1 | Description of policies and practices relating to behavioral advertising and user privacy  | 60~65          | For further details, please refer to the webpage describing Kakao's tailor-made advertising and Kakao's privacy policy website.   |
|   | TC-IM-220a.2 | Number of users whose information is used for secondary purposes   | -              | Zero: Kakao uses the data only for purposes that the user has consented to.   |
|   | TC-IM-220a.3 | Total amount of monetary losses as a result of legal proceedings associated with user privacy  | 100            | -   |
|   | TC-IM-220a.4 | (1) Number of law enforcement requests for user information, (2) number of users whose information was requested, (3) percentage resulting in disclosure | 61             | Further details are available on the Kakao's privacy policy website.  |
|   | TC-IM-220a.5 | List of countries where core products or services are subject to government-required monitoring, blocking, content filtering, or censoring               | -              | -   |
|   | TC-IM-220a.6 | Number of government requests to remove content, percentage compliance with requests   | -              | -   |
| Data Security   | TC-IM-230a.1 | (1) Number of data breaches, (2) percentage involving personally identifiable information (PII), (3) number of users affected                            | 100            | (1) Zero, (2) 0%, (3) Zero  |
|   | TC-IM-230a.2 | Description of approach to identifying and addressing data security risks, including use of third-party cybersecurity standards                          | 60~65          | -   |
| Employee Recruitment, Inclusion & Performance               | TC-IM-330a.1 | Percentage of employees that are foreign nationals   | 97             | In 2021, foreign national employees accounted for 0.49% of total employees. Kakao respects the value of diversity and puts competency first without discriminating on the grounds of place of origin, nationality, gender, age, or disability. We also respect the diverse backgrounds and values of Krew, and work to promote diversity and create a flexible corporate culture. |
|   | TC-IM-330a.2 | Employee engagement as a percentage  | 49, 99         | Kakao performs annual organizational health checks to identify employees' satisfaction and engagement. The organizational health check conducted in 2021 revealed that employee's positive work experiences amounted to 71%.  |
|   | TC-IM-330a.3 | Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees                         | 97             | -   |
| Intellectual Property Protection & Competitive Behavior     | TC-IM-520a.1 | Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations                                    | -              | Please refer to '7. Matters concerning sanctions and others' of the Kakao annual report 2021.   |

[Link to Kakao's tailor-made advertising webpage](#)

[Link to Kakao's privacy policy website](#)

| Code        | Activity Metric <sup>1)</sup>                           | Reporting Page | Description   |
|-------------|---|----------------|---|
| TC-IM-000.A | Entity-defined measure of user activity                 | 10             | As of 2021, the number of Monthly Active Users (MAU) of KakaoTalk was 47.04 million in Korea, and 53.45 million globally. |
| TC-IM-000.B | (1) Data processing capacity, (2) percentage outsourced | -              | -   |
| TC-IM-000.C | (1) Amount of data storage, (2) percentage outsourced   | -              | -   |

1) For metrics not reported, they were not disclosed as they contained sensitive business information.

2) Based on country-specific calorific values by fuel type














## TCFD

Kakao actively join hands in responding to climate change as demanded by the global community, and has identified both actual and potential financial impacts that climate change could bring, setting its strategic directions and establishing a management system accordingly. We will transparently share our efforts to respond to climate change in accordance with the TCFD(Task Force on Climate-Related Financial Disclosures) recommendations to further reach out to stakeholders.

| Recommendation      | Kakao's Response   | Reporting Page |
|---------------------|--|----------------|
| Governance          | Disclose the organization's governance around climate-related risks and opportunities  | 34~35, 85~86   |
| Strategy            | Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material | 36~41          |
| Risk management     | Disclose how the organization identifies, assesses, and manages climate-related risks  | 34, 85~86      |
| Metrics and targets | Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material   | 34~35, 95      |

## UN SDGs

The UN Sustainable Development Goals (UN SDGs) are 17 goals to be attained by all countries across the globe by 2030 to ensure the sustainable development for people and our planet. Kakao's raison d'être to change the world for the better deeply resonates with the UN's global agenda to pursue sustainable development for humanity.

| Goal   | Target   | Kakao's Contribution in 2021  | Reporting Page |
|--|--|---|----------------|
|    | (2.3) By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, by providing secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment | <ul style="list-style-type: none"> <li>Operated the 'Worth Every Penny' brand to pursue win-win partnerships for agricultural and fisheries products</li> <li>Supported the online sales and marketing of local specialties (joined by 16 local governments, sales of KRW 13 billion in total)</li> </ul>   | 56             |
|    | (4.4) By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship   | <ul style="list-style-type: none"> <li>Harmonious Digital World attended by 20,495 students</li> <li>Remote career mentoring attended by 4,663 students</li> <li>Career Experience Workshop attended by 745 students</li> <li>Kakao Class attended by 696 participants</li> </ul>   | 76, 79, 100    |
|    | (5.4) Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate   | <ul style="list-style-type: none"> <li>Operated workplace daycare centers</li> <li>Provided maternity, miscarriage, stillbirth leave, parental leave, prenatal check leave, infertility treatment leave, and family care leave</li> </ul>   | 44             |
|    | (7.3) By 2030, double the global rate of improvement in energy efficiency  | <ul style="list-style-type: none"> <li>Pursued the LEED eco-friendly building certification for Pangyo Alphadom City</li> <li>Our Ansan Data Center embraced eco-conscious designs, earned 1st grade in preliminary certification under the energy efficiency rating program and the highest grade in preliminary G-SEED (Green Standard for Energy &amp; Environment Design) certification</li> <li>Made facility improvements to increase the energy efficiency of the server room at data centers</li> </ul> | 34, 36~37      |
|   | (8.3) Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises by providing thorough access to financial services   | <ul style="list-style-type: none"> <li>SME training support program attended by 1,719 participants</li> <li>Supported the Brand K project to help SMEs with product sales (created nearly KRW 130 million in sales)</li> <li>Kakao Ventures supported the growth of ICT/SW startups</li> <li>Kakao Enterprise's Boost-Up startup incubation program identified and supported 18 startups</li> </ul>   | 56~57          |
|  | (8.5) By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities and equal pay for equal value of work  | <ul style="list-style-type: none"> <li>Provided barista jobs to people with developmental disabilities at in-house cafés</li> <li>Hired 84 employees with disabilities through Linkage Lab, a subsidiary and a standard site for inclusive employment</li> </ul>  | 44             |
|  | (9.1) Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all   | <ul style="list-style-type: none"> <li>Kakao Bank launched services to help customers claim unclaimed deposits and insurance benefits</li> <li>- Reached 888,000 cases in unclaimed deposits and insurance benefits claimed totaling KRW 20.5 billion</li> </ul>  | 77             |
|  | (10.2) By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status   | <ul style="list-style-type: none"> <li>Made Kakao web/app services more accessible to users with disabilities</li> <li>Kakao Bank supported teens in using its banking service</li> <li>Kakao Mobility reinforced Kakao T platform's functionality to allocate hearing-impaired drivers</li> </ul>  | 57, 71         |
|  | (11.2) By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons  | <ul style="list-style-type: none"> <li>Kakao Map opened a route instruction service for the mobility-challenged</li> </ul>  | 30             |
|  | (12.6) Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle  | <ul style="list-style-type: none"> <li>Published the Kakao's Commitment and Responsibility Report 2021</li> </ul>   | -              |
|  | (13.3) Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning  | <ul style="list-style-type: none"> <li>Set the 2040 Net Zero goal</li> <li>Established Kakao's environmental policy</li> <li>Built GHG inventories</li> <li>Encouraged Krew to choose eco-friendly commutes and mobility options</li> </ul>   | 34~35, 38      |
|  | (16.5) Substantially reduce corruption and bribery in all their forms  | <ul style="list-style-type: none"> <li>Operate the Kakao Code of Conduct</li> <li>Company-wide ethics and human rights training attended by 2,634 Krew members (99.8% completion rate)</li> <li>Addressed all counseling requests/reports raised internally and externally</li> </ul>   | 88~89          |
|  | (17.17) Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships  | <ul style="list-style-type: none"> <li>Encouraged participation through the Kakao Together platform</li> <li>- Donations made: 6,228,099 times</li> <li>- Funds donated: KRW 7,105 million</li> </ul>   | 100            |

## UN Global Compact

The UN Global Compact (UNGC) is the global corporate citizenship initiative endorsed by more than 100 countries and businesses, and presents 10 principles to follow in the areas of human rights, labour, the environment and anti-corruption. Kakao joined the initiative in February 2021 to fulfill its corporate social responsibility and comply with the 10 UNGC Principles. Going forward, we will transparently share our progress made in abiding by these principles and faithfully take on our responsibility as a corporate citizen.

### UNGC Advanced Criteria

| Scope  | Criterion   | Kakao's Approach in 2021  | Reporting Page   |
|--|---|---|--|
| Implementing the Ten Principles into Strategies & Operations | 1 The COP describes mainstreaming into corporate functions and business units                             | · UN Global Compact   | 112  |
|  | 2 The COP describes value chain implementation  | · Kakao's Supplier Code of Conduct<br>· Supplier selection and management   | · Information security training for Krew and partners<br>58, 63  |
| Robust Human Rights Management Policies & Procedures         | 3 The COP describes robust commitments, strategies or policies in the area of human rights                | · Kakao's Business and Human Rights Statement<br>· Membership at the UNGC   | 43   |
|  | 4 The COP describes effective management systems to integrate the human rights principles                 | · Human rights violation reporting/handling process<br>· Human rights awareness improvement training for Krew                             | · User damage compensation process<br>43, 67   |
|  | 5 The COP describes effective monitoring and evaluation mechanisms of human rights integration            | · Human rights violation reporting/handling process   | · Human rights awareness improvement training for Krew<br>43   |
| Robust Labour Management Policies & Procedures               | 6 The COP describes robust commitments, strategies or policies in the area of labour                      | · Kakao's Business and Human Rights Statement and membership at the UNGC<br>· Communication-based labor relations                         | · Institutional support for diversity<br>· Kakao's Supplier Code of Conduct<br>· Supplier selection and management<br>43-44, 58  |
|  | 7 The COP describes effective management systems to integrate the labour principles                       | · Communication-based labor relations   | 44   |
|  | 8 The COP describes effective monitoring and evaluation mechanisms of labour principles integration       | · Communication-based labor relations   | · Labor Management Relations and Organizational Culture<br>44, 99  |
| Robust Environmental Management Policies & Procedures        | 9 The COP describes robust commitments, strategies or policies in the area of environmental stewardship   | · Environmental policy<br>· Environmental goal<br>· Setting the 2040 Net Zero goal  | · Kakao's Supplier Code of Conduct<br>· Supplier selection and management<br>34-35, 58   |
|  | 10 The COP describes effective management systems to integrate the environmental principles               | · Dedicated environmental management organization   | · Environmental management system<br>34  |
|  | 11 The COP describes effective monitoring and evaluation mechanisms for environmental stewardship         | · Dedicated environmental management organization   | · Eco-friendly service<br>34, 39-40  |
| Robust Anti-Corruption Management Policies & Procedures      | 12 The COP describes robust commitments, strategies or policies in the area of anti-corruption            | · Ethical management system   | 88   |
|  | 13 The COP describes effective management systems to integrate the anti-corruption principle              | · Kakao's Supplier Code of Conduct<br>· Supplier selection and management<br>· Ethical management implementation organization and process | · Ethical management training for all Krew members<br>· Internal/external counseling and whistleblowing mechanisms and whistleblower protection principles<br>· Operation of the gift return center<br>58, 88-89 |
|  | 14 The COP describes effective monitoring and evaluation mechanisms for the integration of anticorruption | · Ethical management implementation organization and process  | · Hotline whistleblowing<br>88-89  |
| Taking Action in Support of Broader UN Goals and Issues      | 15 The COP describes core business contributions to UN goals and issues                                   | · Business support for small businesses<br>· Providing growth opportunities to startups   | · Laying the basis to better treat partners<br>· UN SDGs<br>56-57, 111   |
|  | 16 The COP describes strategic social investments and philanthropy  | · Creating social impact<br>· Partner cooperation projects  | · Activities engaging Krew members<br>· Community communication<br>74-79   |
|  | 17 The COP describes advocacy and public policy engagement  | · UN SDGs   | 111  |
|  | 18 The COP describes partnerships and collective action   | · Memberships   | 114  |
| Corporate Sustainability Governance and Leadership           | 19 The COP describes CEO commitment and leadership  | · CEO's message   | 6  |
|  | 20 The COP describes Board adoption and oversight   | · Creating the ESG Committee  | 84   |
|  | 21 The COP describes stakeholder engagement   | · Krew grievance handling process<br>· Stakeholder communication  | · Materiality assessment<br>44, 93-94  |



# Kakao's ESG Policy and Regulations

## Environmental Policy

Kakao minimizes the environmental impact generated from its service offerings, and fulfills its responsibility by preventing environmental pollution and protecting the environment.

## Kakao's Policy for the Protection of Teens

Kakao endeavors to protect teens from harmful content and help with the safe use of the internet which is freely open to people of all ages.

## Corporate Governance Charter

Kakao stipulates the Corporate Governance Charter as the foundation for its sustainable business operations to build trust with wide-ranging stakeholders and do its utmost to pursue shared growth.

## Audit Committee Regulations

Kakao specifies matters required for job performance standards and operations so that the Audit Committee conducts audit work in an appropriate and efficient manner.

## Kakao Business and Human Rights Statement

Kakao strives to prevent factors that may give rise to human rights violation in the boundary of its service and business operations, and does its utmost to promptly respond to and resolve the violation of human rights.

## Policy for the Protection of Children and Teens

Kakao applies the zero tolerance principle to sexual crimes involving children and teens, and ensures to develop and deploy diverse technologies to prevent such crimes.

## BOD Regulations

Kakao specifies matters necessary for the efficient operation of its Board of Directors to establish sound governance.

## Risk Management Regulations

Kakao manages risks that may occur across its business operations in a comprehensive and efficient manner to stipulate matters required to maintain business stability.

## Algorithm Ethics

Kakao makes every possible effort in relation to algorithms within our society, and pursues the benefits and contentment of all in so doing.

## Privacy Policy

Kakao endeavors to strike the balance between data connectivity and security, and increase the value of data to provide better services while safely protecting user data.

## Directors Nominating Committee Regulations

Kakao specifies matters required for the efficient operation of the Directors Nominating Committee established under the Board of Directors.

## Code of Ethics

Kakao vows to uphold the highest possible level of integrity across its business operations and in internal/external relationships, and presents principles to follow to avoid situations when the value the company pursues is actually or seemingly violated.

## Principle to Counter Hate Speech

Kakao stays vigilant against expressions that abuse the freedom of expression and threaten the safety of others, and endeavors to combat hate speech online.

## Kakao Supplier Code of Conduct

Kakao assists suppliers in laying the basis to pursue shared growth with Kakao by complying with all applicable laws and regulations and fulfilling their social responsibility.

## Compensation Committee Regulations

Kakao stipulates matters required for the efficient operation of the Compensation Committee established under the Board of Directors.

## Ethics Pledge

Kakao respects partners as its companion for business operations, and pursues shared growth through transparent and fair transactions and mutual cooperation.

## Kakao's Operational Policy

Kakao stipulates the standards of service operations and detailed rules for users to follow to consistently address issues that may arise in relation to its service use.

## Articles of Association

Kakao stipulates fundamental rules concerning its organizational operations.

## ESG Committee Regulations

Kakao stipulates matters required for the efficient operation of the ESG Committee established under the Board of Directors.

## Tax Policy

Kakao pursues growth as a way to contribute to social and economic development, stipulates and operates its tax policy to sincerely report taxes and pay taxes in accordance with laws and regulations, and faithfully file and pay its taxes pursuant to the set principles.

## Memberships

| Name of Association                             |
|---|
| OECD Digital for SMEs Global Initiative (D4SME) |
| UN Global Compact                               |
| Korea Startup Forum                             |
| Korea Blockchain Industry Promotion Association |
| Korea Listed Companies Association              |
| South Korea Internet Governance Forum           |
| Korea Internet Corporations Association         |
| Korea Internet Self-Governance Organization     |
| Korea Investor Relations Service                |
| Korea Creative Content Agency                   |
| Korea Digital Advertising Association           |
| Fair Competition Federation                     |
| Seoul Chamber of Commerce & Industry            |
| Jeju Chamber of Commerce & Industry             |
| Korea Industrial Technology Association         |
| Korea Exchange                                  |

### ESG Achievements Made Publicly in 2021

Member of  
**Dow Jones  
Sustainability Indices**

Powered by the S&P Global CSA

Listed in the Dow  
Jones Sustainability  
World/Asia Pacific/  
Korea Indices



CCC B BB BBB A AA AAA

Rated A in  
MSCI ESG ratings



Environment : A  
Social : A+  
Governance : A

Rated A in overall  
ESG rating by KCGS

## Awards

| Year                                      | Host   | Name of Award  |
|---|--|--|
| 2022                                      | Korea Exchange   | Named a Top Performer in creating English disclosures in the securities market (3 consecutive years)       |
|   | Sensor Tower   | Awarded in the Fastest Growing Game Publisher sector at the Sensor Tower Awards Korea (Kakao Games)        |
| 2021                                      | Newsis   | Deputy Prime Minister and Finance Minister Award, Korea Employment Awards                                  |
|   | Ministry of Culture, Sports and Tourism  | Presidential Commendation for Contribution to Promoting Policy Communication                               |
|   | Korea Management Association Consulting  | Korea's Most Admired STAR sector, and ranked 1st in the portal service sector                              |
|   | Korea Exchange   | Named a Top Performer in creating English disclosures in the securities market                             |
|   | Korea Investor Relations Service   | Grand Prize in the securities market sector, Korea IR Awards   |
|   | Maeil Business Newspaper   | Grand Prize at the 4th Korea Accounting Awards   |
|   | Personal Information Protection Commission, Ministry of Science and ICT, Financial Services Commission, Ministry of Health and Welfare | Grand Prize at the Pseudonymous Data Best Practice Contest (Kakao Bank)                                    |
|   | Ministry of Culture, Sports and Tourism, Korea Creative Content Agency   | Special Award in the Media Business sector, New Media Content Awards (Kakao Entertainment)                 |
|   | Ministry of Employment and Labor   | Named a Best Employer (Kakao Commerce, Kakao Pay, Kakao Entertainment, dktechin)                           |
|   | 2020   | Korea Advertising Society  |
| Korea Investor Relations Service          |  | Excellence Award in the securities market sector, Korea IR Awards  |
| Money Today                               |  | Overall Grand Prize at the Money Today IR Awards   |
| Korea Exchange                            |  | Designated as a top performer in creating English disclosures in the securities market                     |
| Edaily                                    |  | Minister of Employment and Labor Award in the work environment improvement sector, Great Work Place Awards |
| Asia Business Daily                       |  | Asia Business Daily CEO Award in the organizational culture sector, 5th Asia Women Index Awards            |
| ADFEST(Asia Pacific Advertising Festival) |  | Bronze Award in the Mobile sector  |
| Arts Council Korea                        |  | Award in the Frontier sector, Arts Patron of the Year Awards   |
| 2019                                      | Gyeonggi Employers Federation  | Awarded at the Work Life Balance Company Awards in the Gyeonggi Province                                   |
|   | Korean Society for Internet Information  | Internet Technology Award  |
|   | IDSA(Industrial Designers Society of America)  | Named an IDEA Finalist for iF Kakao and Kakao School brand identity  |
|   | iF(International Forum Design)   | iF Award for iF Kakao, kakao school, kakao mini C, Melon Branding  |
|   | AD STARS   | Gold Award in the mobile sector, Crystal Award in the media sector   |

# GHG Emissions Verification Statement



## Independent Verification Statement

### Kakao Corporation

#### Introduction

Korea Management Registrar has been requested by Kakao Corporation to verify greenhouse gas emissions for 2021. The verification was conducted on the organization and operation boundary, and the results are as specified as below. This verification statement is valid from the day of publication.

#### Scope

- Organization and operation boundary:
  - √ Limited to the Pangyo office, Jeju office and data centers (4 facilities) of Kakao Corp., according to the operating and controlling approach of the standards.
- Verification period: 01/01/2021 ~ 12/31/2021
- Types of Greenhouse Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O (not applicable for HFCs, PFCs, SF<sub>6</sub>)
  - √ Verification scope: Scope 1 (direct emissions), Scope 2 (indirect emissions), Scope 3 (indirect emissions)
- Performed verification work:
  - √ Visiting Kakao Corp. and interviewing with the manager responsible for overall emissions data collection of the organization
  - √ Reviewing the emissions data monitoring standard and process
  - √ Examination on raw data including information system, bills and payment statements related to verification scope
  - √ Comparative examination through on desk review, risk analysis, observation and inspection, etc.
  - √ Level of assurance: Limited assurance

#### Standard & Guidance

- √ ISO 14064-1 Greenhouse gases Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals (2006),
- √ ISO 14064-3 Greenhouse gases Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions (2006),
- √ IPCC Guidelines for National Greenhouse Gas Inventories (2006),
- √ WRI/WBCSD GHG Protocol,
- √ MOE Verification guidelines for operation of greenhouse gas and energy target management

scheme (Criterion of materiality / IPCC emission factors and calorific values / Country specific calorific values and emission factors)

#### Results

Kakao Corporation greenhouse gas emissions of 2021 as follows.

| Year | Greenhouse Gas Emissions (tCO <sub>2</sub> -eq) |         |         |        | Energy Consumption(TJ) |             |       |       |
|------|---|---------|---------|--------|------------------------|-------------|-------|-------|
|      | Scope 1   | Scope 2 | Scope 3 | Total  | Fuel                   | Electricity | Steam | Total |
| 2021 | 223   | 84,741  | 210     | 85,184 | 7                      | 1,765       | 7     | 1,779 |

\* The scope 3 emissions was limited to the commuter buses of Pangyo office, Jeju office

#### Conclusions

As a result of the verification according to the verification scope and standard presented above, the assurance opinion of Korea Management Registrar is as follows.

- √ KMR verified the greenhouse gas emissions for 2021 of Kakao Corp. as described above. Based on the procedures performed, no evidence was identified that the emissions information is not prepared in accordance with the monitoring requirements to meet the verification scope and standards.
- √ This opinion may be influenced by the limitations of provided data, sampling methods, etc., and because of these limitations of verification, there could be unavoidable possibility of existence of undiscovered misstatements.
- √ Under limited organization boundary, applied quantitative decision criterion for materiality threshold is 5% of total emissions. And no material error and omission which would affect verification opinion was detected.

April 6, 2022

Korea Management Registrar  
President Hwang Eun Ju

# Third-party Assurance Statement

## LRQA Independent Assurance Statement

### Relating to Kakao Corporation's Sustainability Report for the calendar year 2021

This Assurance Statement has been prepared for Kakao Corporation in accordance with our contract but is intended for the readers of this Report.

#### Terms of engagement

LRQA was commissioned by Kakao Corporation to provide independent assurance on its 'Kakao's Commitment & Responsibility 2021' ("the report") against the assurance criteria below to a "moderate level of assurance and materiality of professional judgement" using "Accountability's AA1000AS v3", where the scope was a Type 2 engagement.

Our assurance engagement covered Kakao Corporation's operations and activities in Korea and specifically the following requirements:

- Evaluating adherence to the AA1000 AccountAbility Principles<sup>1)</sup> of Inclusivity, Materiality, Responsiveness and Impact
- Confirming that the report is in accordance with GRI Standards<sup>2)</sup> and core option
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
  - GRI 200 (Economic): 201-1, 203-2, 205-2, 205-3, 206-1
  - GRI 300 (Environmental): 302-1, 302-2, 302-3, 305-1, 305-2, 305-3, 305-4, 307-1
  - GRI 400 (Social): 401-1, 401-2, 401-3, 402-1, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10, 404-1, 404-3, 405-1, 407-1, 408-1, 409-1, 412-2, 413-1, 415-1, 416-2, 417-2, 417-3, 418-1, 419-1
  - SASB<sup>3)</sup> Accounting Metrics and Activity Metrics

Our assurance engagement excluded the data and information of Kakao Corporation's suppliers, contractors and any third-parties mentioned in the report.

LRQA's responsibility is only to Kakao Corporation. LRQA disclaims any liability or responsibility to others as explained in the end footnote. Kakao Corporation's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of Kakao Corporation.

#### LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that Kakao Corporation has not, in all material respects:

- Met the requirements above

1) <https://www.accountability.org>

2) <https://www.globalreporting.org>

3) <https://www.sasb.org>

- Disclosed accurate and reliable performance data and information as all errors or omissions identified during the assurance engagement were corrected
- Covered all the issues that are important to the stakeholders and readers of this report. The opinion expressed is formed on the basis of a moderate level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a moderate assurance engagement is less than for a high assurance engagement. Moderate assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a moderate assurance engagement is substantially lower than the assurance that would have been obtained had a high assurance engagement been performed.

#### LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure.

The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing Kakao Corporation's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing documents and associated records.
- Reviewing Kakao Corporation's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by benchmarking reports written by Kakao Corporation and its peers to ensure that sector specific issues were included for comparability. We also tested the filters used in determining material issues to evaluate whether Kakao Corporation makes informed business decisions that may create opportunities that contribute towards sustainable development.
- Auditing Kakao Corporation's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the report.
- Checking whether GHG emissions and energy consumptions in the appendix of the report were transposed correctly from the GHG inventory which was verified by the third-party assurance provider.
- Reviewing additional evidence made available by Kakao Corporation at its Pangyo Office in Gyeonggi-do.

#### Observations

Further observations and findings, made during the assurance engagement, are:

- **Inclusivity:** We are not aware of any key stakeholder groups that have been excluded from Kakao Corporation's stakeholder engagement process.
- **Materiality:** We are not aware of any material issues concerning Kakao Corporation's sustainability performance that have been excluded from the report. It should be noted that Kakao Corporation has established extensive criteria for determining which issue/aspect is material and that these criteria are not biased to the company's management.
- **Responsiveness:** Kakao Corporation established the Corporate Alignment Centre (CAC Centre) in order to enhance a function to guide its sustainability management within the organization and appointed the vice chairman as the head of CAC Centre. We believe that these progresses in governance perspective

can contribute to addressing sustainability issues more effectively.

- Impact: Kakao Corporation implemented a program to assess impact of its operations and activities on human rights. We expect that Kakao Corporation will be able to report the actions to migrate negative impacts as well as the results of the human right impact assessments in the future.
- Reliability: We found out that Kakao Corporation has continually improved its reporting process since the last publication of sustainability report. For example, transparency and consistency were enhanced by setting up more specific criteria for quantitative data.

**LRQA's standards, competence and independence**

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 Greenhouse gases — Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition and ISO/IEC 17021 Conformity assessment — Requirements for bodies providing audit and certification of management systems that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

This verification engagement is the only work undertaken by LRQA for Kakao Corporation and as such does not compromise our independence or impartiality.

**Tae-Kyoung Kim Dated:**

24 April 2022  
LRQA Lead Verifier  
On behalf of LRQA  
17th Floor, Sinsong Building, 67 Yeouinaru-ro, Yeongdeungpo-gu, Seoul, Korea



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